TT

TEXTBOOK TESTBANKS

Test Bank for Psychology 14th Wade

TEST BANK SAMPLE PREVIEW

PUBLISHER

Pearson

COPYRIGHT

2024

RESOURCE TYPE

Test Bank

ISBN

9780138062149

Chapter 1 *What Is Psychology?*

▲ TABLE OF CONTENTS

►Chapter-At-A-Glance

Detailed Outline	*Instructor Resources*
Psychology, Pseudoscience, and the Perils of Common Sense What Psychology Is What Psychology Is Not	**Learning Objectives:** 1.1.A, 1.1.B **Lecture Launchers:** 1.1, 1.2 **Activities & Exercises:** 1.1, 1.2 **Handout**: 1.1
Thinking Critically about Psychology What Is Critical Thinking? Critical Thinking Steps	**Learning Objectives:** 1.2.A, 1.2.B **Lecture Launchers:** 1.3, 1.4 **Activities & Exercises:** 1.3
A History of Psychology: From the Armchair to the Laboratory The Forerunners of Modern Psychology The Birth of Modern Psychology	**Learning Objectives:** 1.3.A, 1.3.B **Lecture Launchers:** 1.5, 1.6, 1.7, 1.8, 1.9 **Activities & Exercises:** 1.5, 1.6 **Handout:** 1.2
Psychological Science Perspectives Pillars of Modern Psychology Gender, Race, and Diversity in Psychology	**Learning Objectives:** 1.4.A, 1.4.B **Lecture Launchers:** 1.10, 1.11 **Activities & Exercises:** 1.10, 1.11 **Handout:** 1.3
What Psychologists Do Psychological Research Psychological Practice	**Learning Objectives:** 1.5.A, 1.5.B **Lecture Launchers:** 1.12 **Activities & Exercises:** 1.7, 1.8, 1.9 **Handout:** 1.4

► Learning Objectives

LO 1.1.A – Define psychology, and describe how it addresses daily life from a scientific perspective.

LO 1.1.B – Explain what separates psychological science from pseudoscience, pop psychology, and other sources of dubious claims regarding psychological issues.

LO 1.2.A – Explain why critical thinking applies to all scientific pursuits and why it should also guide everyday judgments and decision-making.

LO 1.2.B – Identify important steps to critical thinking, and give an example of how each applies to the science of psychology.

LO 1.3.A – Discuss some of the early approaches to explaining psychological topics, from ancient times through the early 1800s.

LO 1.3.B – Discuss some of the influential perspectives and individuals in the early years of modern psychology.

LO 1.4.A – List and describe five pillars of psychological science.

LO 1.4.B – Review the lack of diversity in early psychology and its consequences, and explain how feminist psychology illustrates the benefits of including a range of perspectives in scientific inquiry.

LO 1.5.A – Distinguish basic psychology and applied psychology, and summarize the kinds of research that various psychologists might conduct.

LO 1.5.B – Compare the training and work settings of different psychological practitioners such as counselors, clinical psychologists, psychotherapists, psychoanalysts, and psychiatrists.

► Rapid Review

Chapter 1 defines psychology and traces the historical and disciplinary roots of the field to its current perspectives, specializations, and professional activities. Critical thinking guidelines are described, and students are encouraged to understand and apply these concepts as they read the text. The complexity of human behavior requires that psychology students resist simplistic thinking and reject overly simple explanations. Five pillars of psychological science are identified: biological, cognitive, developmental, social/personality, and mental and physical health. Students are encouraged to think about human behavior from each perspective and apply their critical thinking skills to compare and contrast these approaches. Continual advances are being made to be inclusive of gender, race, and culture in the theorizing and research findings of psychological science. A review of the specialty areas within the field helps students appreciate that psychology includes diverse topics and that psychologists are engaged in a wide variety of occupations. Examples of specializations include experimental psychology, educational psychology, psychometrics, and industrial/organizational psychology. The practice of psychology, which helps people confronting mental health difficulties, is discussed along with a description of types of practitioners within the field of psychology (e.g., counseling psychologists, school psychologists) and those outside of it. Although psychologists have different orientations and different occupational activities, all of them share a fascination with the human mind and behavior. They also stress the importance of empirical evidence that is so critical to defining psychology as a science.

► Lecture Guide

I. PSYCHOLOGY, PSEUDOSCIENCE, AND THE PERILS OF COMMON SENSE

- *Lecture Launcher 1.1 – Psychology and Common Sense*
- *Lecture Launcher 1.2 – Psychology in the Framework of Emerging Transdisciplinary Science*
- *Activity 1.1 – Inference or Observation?*
- *Activity 1.2 – Psychology's Goals Applied to Matchmaking*

Learning Objective 1.1.A – Define psychology, and describe how it addresses daily life from a scientific perspective.

A. What psychology is
   1. Psychology is the scientific discipline concerned with behavior and mental processes, and how they are affected by an organism's physical state, mental state, and external environment.
   2. Scientific psychology is based on research and empirical evidence, which is gathered by careful observation, experimentation, and measurement.
   3. Psychology is not just another name for common sense.

Learning Objective 1.1.B – Explain what separates psychological science from pseudoscience, pop psychology, and other sources of dubious claims regarding psychological issues.

B. What psychology is not
   1. Many pop psychology ideas are presented in self-help books or by dubious experts on talk shows.
   2. Although belief in pseudoscience may give people a sense of control, pseudoscience is not based on scientific inquiry.
      a. We need to develop an ability to distinguish between psychobabble and serious psychology, and between unsupported *popular opinion* and findings based on *research evidence*.

II. THINKING CRITICALLY ABOUT PSYCHOLOGY

- Lecture Launcher 1.3 – How Do We Know What We Know?
- Lecture Launcher 1.4 – The Characteristics of Good Reasoners
- Activity 1.3 – Contradictory Beliefs

Learning Objective 1.2.A – Explain why critical thinking applies to all scientific pursuits and why it should also guide everyday judgments and decision-making.

A. What is critical thinking?
   1. Critical thinking is the ability and willingness to assess claims and make judgments on the basis of well-supported evidence, rather than emotion or anecdote.

Learning Objective 1.2.B – Identify important steps to critical thinking, and give an example of how each applies to the science of psychology.

B. Critical thinking steps
   1. Ask questions; be willing to wonder.
   2. Define your terms.
   3. Analyze assumptions and biases.
   4. Examine the evidence.
   5. Weigh conclusions.

III. A HISTORY OF PSYCHOLOGY: FROM THE ARMCHAIR TO THE LABORATORY

- *Lecture Launcher 1.5 – The Study of Bumps on the Head*
- *Lecture Launcher 1.6 – Brief Biographical Profiles of Major Contributors to Psychology*
- *Lecture Launcher 1.7 – Wundt's Other Method: Historical and Cultural Psychology*
- *Lecture Launcher 1.8 – Dates in the Development of Psychoanalysis*
- *Lecture Launcher 1.9 – John B. Watson's Fall From Grace*
- *Activity 1.4 – Name That Historical Psychologist*
- *Activity 1.5 – A Jigsaw Puzzle Approach to Learning the History of Psychology*
- *Activity 1.6 – Pillars of Psychology*

Learning Objective 1.3.A – Discuss some of the early approaches to explaining psychological topics, from ancient times through the early 1800s.

A. The forerunners of modern psychology

1. All psychologists want to describe, predict, understand, and modify behavior in order to add to human knowledge and maximize human happiness.
2. Many early thinkers in philosophy or physiology addressed psychological topics, and were often correct in their conclusions regarding human behavior.
3. Many pseudosciences, such as phrenology, enjoyed a period of popularity, but were soon discredited.

Learning Objective 1.3.B – Discuss some of the influential perspectives and individuals in the early years of modern psychology.

B. The birth of modern psychology
   1. Wilhelm Wundt
      a. In 1879, Wundt established the first psychological laboratory in Leipzig, Germany.
      b. Trained *introspection*—technique by which participants were trained to describe their own sensations, mental images, and emotional reactions.
   2. Structuralism
      a. E. B. Titchener (a student of Wundt) popularized Wundt's ideas in the United States.
      b. Like Wundt, structuralists hoped to deconstruct sensations, images, and feelings into basic elements.
      c. Reliance on introspection led to conflicting reports.
   3. Functionalism
      a. William James was interested in *how* and *why* behavior occurs, focusing on the causes and consequences of behavior.
      b. Influenced by Charles Darwin, functionalists asked how certain attributes might enhance survival and foster adaptation to the environment.
      c. Used a variety of methods and studied a broader range of subjects.
   4. Psychoanalysis
      a. Sigmund Freud
         i. Believed that patients' symptoms had mental, not bodily, causes
         ii. Unconscious part of mind has strong influence on behavior

IV. PSYCHOLOGICAL SCIENCE PERSPECTIVES

- *Lecture Launcher 1.10 – People of Color in the History of Psychology in America*
- *Lecture Launcher 1.11 – Women in the History of Psychology in America*

Learning Objective 1.4.A – List and describe five pillars of psychological science.

A. Pillars of modern psychology
   1. The biological pillar
      a. Examines how bodily events affect behavior, feelings, and thoughts
      b. Related to evolutionary psychology, which examines how evolutionary past may explain some present behaviors and psychological traits
   2. The cognitive pillar
      a. Emphasizes what goes on in people's heads—how people reason, remember, understand language, solve problems, explain experiences, acquire moral standards, and form beliefs
      b. One of the strongest forces in psychology today
   3. The developmental pillar
      a. Growth and change over time are a continuous feature of the human experience.
   4. The social/personality pillar
      a. Social psychologists focus on social rules and roles, how groups affect attitudes and behavior, why people obey authority, and how each of us is affected by other people.
      b. Personality theorists examine enduring characteristics of an individual.
      c. Both emphases are couched within a cultural framework of rules and values, both explicit and unspoken, that affect people's development, behavior, and feelings.
   5. The mental and physical health pillar
      a. Focuses on healthy functioning and how to address threats to it

Learning Objective 1.4.B – Review the lack of diversity in early psychology and its consequences, and explain how feminist psychology illustrates the benefits of including a range of perspectives in

scientific inquiry.

B. Gender, race, and diversity in psychology
   1. Early psychology was dominated by White men who often perpetuated gender and racial biases.
   2. Many barriers to the field were experienced by women and people of color.
   3. a. Like many disciplines, the early track record of psychology was bleak when it came to diversity, despite pioneering work by such scientists as Eleanor Gibson, Kenneth and Mamie Clark, and many others.
      b. The field has come a long way, although more work remains to be done.

V. WHAT PSYCHOLOGISTS DO

- *Lecture Launcher 1.12 – Basic Research vs. Applied Research*
- *Activity 1.7 – What Kind of Psychologist Am I?*
- *Activity 1.8 – What Psychologists Know*
- *Activity 1.9 – Thinking About Your Interests in Psychology*

Learning Objective 1.5.A – Distinguish basic psychology and applied psychology, and summarize the kinds of research that various psychologists might conduct.

A. Psychological research
   1. Basic versus applied research
      a. Researchers working in basic psychology seek knowledge for its own sake.
      b. Researchers concerned with the practical uses of knowledge work in applied psychology.
   2. Major nonclinical specialties in psychology
      a. Experimental psychologists
      b. Educational psychologists
      c. Industrial/organizational psychologists
      d. Psychometric psychologists

Learning Objective 1.5.B – Compare the training and work settings of different psychological practitioners such as counselors, clinical psychologists, psychotherapists, psychoanalysts, and psychiatrists.

B. Psychological practice
   1. Psychological practitioners work to understand and improve physical and mental health.
   2. They work in mental hospitals, general hospitals, clinics, schools, counseling centers, and private practice.
   3. Types of practitioners
      a. Counseling psychologists help people deal with problems of everyday life.
      b. School psychologists work with parents, teachers, and students to enhance students' performance and resolve emotional difficulties.
      c. Clinical psychologists diagnose, treat, and study mental or emotional problems.
   4. People often confuse *clinical psychologist* with three other terms: *psychotherapist*, *psychoanalyst*, and *psychiatrist*.
      a. A *psychotherapist* is anyone who does any kind of psychotherapy. The term is not legally regulated; in most states, anyone can claim to be one.
      b. A *psychoanalyst* is a person who practices psychoanalysis. To call yourself a psychoanalyst, you must have specialized training from a psychoanalytic institute and undergo extensive psychoanalysis yourself.
      c. A *psychiatrist* is a medical doctor trained to diagnose and treat psychological disorders.
         i. Because of their medical training, psychiatrists are more likely to focus on possible biological causes of psychological disorders and to treat these problems with medication.
      d. Social workers and marriage, family, and child counselors usually have a master's degree in social work or psychology.
      e. Psychologists contribute to the welfare of their communities by helping within their areas of expertise.

▼ LECTURE LAUNCHERS AND DISCUSSION TOPICS

Lecture Launcher 1.1 – Psychology and Common Sense

A common refrain voiced by laypeople and some scientists is that most, if not all, of behavioral science "is just common sense." Introductory psychology students are particularly apt to make this claim, given that much of their prior exposure to psychology is likely to have been very commonsensical (though perhaps not well-established) claims by a variety of "professionals" on the talk-show circuit. In a nutshell, it's difficult to counter the "commonsense" stigma when so much of behavior seems to be explainable at an intuitive surface level.

Mark Leary shares some suggestions for discussing this issue with your students. It is true that the subject matter of psychology is much more familiar to most people than is the subject matter of subatomic physics or gastro-endocrinological biology; we see behavior all around us but rarely stumble over a gluon. Psychology would be an odd science of thought and behavior if it only considered thoughts and behaviors completely foreign to people's experiences or if its findings always ran counter to most people's beliefs. But neither greater visibility of subject matter nor popular consensus guarantees greater understanding. Many people believed wholeheartedly in flat Earths and cheese moons, only to find their commonsense views dismantled in the face of scientific evidence. So too with psychology. Although most people would like to believe that large rewards produce greater liking for a boring task, that the behavior of people is somehow determined by their biology, or that absence makes the heart grow fonder, researchers studying cognitive dissonance, stereotypes, and close relationships would be happy to share their findings to the contrary. In short, the popularity of a commonsense belief may not always support the weight of scientific evidence.

More importantly, psychologists (like all scientists) are primarily engaged in the task of explaining behavior, rather than merely cataloging it. The difference between theory and description—"why" versus "what"—echoes the difference between science and common sense. Common sense certainly helps describe *what* takes place in behavior but doesn't compel us to understand *why* it takes place. The development of theory in understanding behavior sets science apart from everyday commonsense accounts.

Leary, M. (2016). *Behavioral research methods* (7th ed.). Pearson Education.

Lecture Launcher 1.2
Psychology in the Framework of Emerging Transdisciplinary Science

Modern approaches to solving the most challenging public health problems (e.g., smoking, obesity) are beginning to develop transdisciplinary (TD) models to promote population health and reduce morbidity and mortality rates, as well as the billions of U.S. dollars spent related to these public health problems.

One-dimensional treatments for complex health problems are not successful from a public health

perspective. A TD approach to solving complex public health problems requires coordinated efforts among health professionals from different backgrounds who work together to develop novel approaches to treatment and prevention efforts. It represents an evolutionary step beyond multidisciplinary treatment by encouraging scientists and clinicians to develop a common language that all participating professionals can understand. Such an approach has the potential to truly impact serious public health problems compared to a separate one. For example, smoking is a multidetermined health behavior characterized by periods of recurring use, abstinence, and relapse. Therefore, changing smoking behavior requires long-term multidimensional, multimodal, intensive treatment, in which improved collaboration among health practitioners and researchers, behavioral scientists, behavioral geneticists, biologists, health policy and economy researchers, and health systems researchers can promote improved outcomes. One-dimensional approaches implemented separately from each of these disciplines cannot address the comprehensive issues of complex problems and result in wasted resources and underperforming intervention approaches.

Psychologists are in a unique position to contribute to the development of transdisciplinary science. Their training is grounded in fundamental scientific principles and theory. Psychologists' approach to understanding and explaining complex phenomena parallels other scientific disciplines and can bridge language gaps across a broad range of scientific disciplines. Their perspective allows them to comment with expertise on human behavior, models of behavior change, and variables that influence the behavior change process and the maintenance of changed behavior. Moreover, their understanding of the process of decision-making, group behavior, marketing techniques, and other specific areas can influence the process of TD intervention development, implementation, evaluation, and dissemination.

One objective of TD is to improve translation of science to practice. One way to accelerate the process is to implement treatment studies into real-world clinical settings. A well-designed treatment study with behavioral science, public health systems, policy, and practitioners can accelerate dissemination, as well as increase our understanding of the factors that influence treatment outcomes. TD treatment approaches need not be viewed as "one-size-fits-all." Indeed, TD approaches are problem focused; hence, collaborators who design and implement programs within their system and community may need to address unique factors that influence their patient populations. Thus, psychologists can contribute to the implementation of an intervention model to different groups of people whether groups are defined by psychopathology, community, or culture.

Lecture Launcher 1.3 – How Do We Know What We Know?

Dependence on observation is one of the hallmarks of science, but it is not the only way humans acquire knowledge. There are, in fact, many questions that cannot be answered by scientific methods and for which other means of acquiring knowledge are more appropriate. Begin your discussion by asking students the following questions:

- How do you know that George Washington was the first president of the United States?
- How do you know that you really have a stomach?
- What makes you so sure the sun will rise tomorrow?
- How do you know the color of the shirt I'm wearing?
- How can you be sure that there aren't little creatures inside computers that are responsible for the things computers do?
- Are you sure you don't have a big hole in the back of your pants or skirt?

Authority is one source of knowledge. We know, or believe, that Washington was the first president because we trust the authority of historians and history books. During the centuries that Western civilization was dominated by the church, the authority of holy writings was believed to be the only dependable way of knowing.

Reason was considered by Renaissance scholars to be the most reliable source of knowledge. If you say, "All humans have stomachs; I am a human; therefore, I have a stomach," you have used deductive reasoning. If you say, "The sun rose today, yesterday, the day before yesterday, and for as long as I or anyone can remember," you are using inductive reasoning.

Observation is yet another way of acquiring knowledge. You know the color of my shirt because you can see the shirt. You assume that you do not have a hole in the posterior of your clothing because you have not observed stares and giggles from others.

One might use any of these ways of knowing to deny the existence of little creatures in computers. People you perceive to be authorities about computer innards may have told you how they work. You may have reasoned that creatures need nourishment and there is no food supply inside microprocessors. Or you may have looked inside a computer and failed to see little creatures waiting to solve your problems. But there is no way one can absolutely refute the computer-creature hypothesis; so if you want to keep your computer running, maybe you should find out what the little creatures eat.

All these ways of knowing—authority, reason, and observation—are used by scientists, but observation must be the basis for knowledge that is scientific. Science puts greater emphasis on evidence provided by the senses than on authority of others or reasoning. In short, science relies on empirical evidence.

Lecture Launcher 1.4 – The Characteristics of Good Reasoners

Reasoning skills are a central component of critical thinking. The following characteristics of good and bad reasoners were compiled by Richard W. Paul and Gerald M. Nosich.

Characteristics of Good Reasoners

1. ***Reasoning has a purpose****.*

Good reasoners:

- state their purpose clearly
- distinguish it from related purposes
- adopt realistic and significant purposes and goals
- monitor their thinking for consistent goals

2. ***Reasoning is an attempt to figure something out, to settle some question, to solve some problem.***

Good reasoners:

- are clear about the question they are trying to settle and can express it clearly
- can break a question into subquestions
- distinguish significant from trivial, and relevant from irrelevant questions
- distinguish questions they can answer from questions they can't
- are sensitive to the assumptions built into the questions they ask

3. ***Reasoning is done from some point of view.***

Good reasoners:

- keep in mind that people have different points of view, especially on issues that are controversial
- consistently articulate other points of view and reason from within those points of view
- seek other viewpoints, especially when the issue is one they believe in passionately
- have insight into areas and problems where they are most likely to be prejudiced

4. ***All reasoning is based on data, information, evidence*****.**

Good reasoners:

- assert a claim only when they have sufficient evidence to back it up
- can articulate and therefore evaluate the evidence behind their claims
- actively search for information *against* (not just *for*) their own position
- key in on relevant information and disregard information or data that are irrelevant to the question at issue
- draw conclusions only to the extent that they are supported by the data
- state their evidence clearly and fairly

5. ***Reasoning is expressed through, and shaped by, concepts and ideas*****.**

Good reasoners:

- are aware of the key concepts and ideas they use
- are able to explain the basic implications of the key words and phrases they use
- are able to distinguish their special, nonstandard uses of words from standard uses

- are aware of irrelevant concepts and ideas
- use concepts and ideas in ways relevant to their functions
- can distinguish superficial from deep concepts

6. *Reasoning is based on assumptions*.
Good reasoners:

- make assumptions that are clear
- make assumptions that are reasonable
- make assumptions that are consistent with each other

7. *Reasoning leads somewhere, has implications and consequences*.
Good reasoners:

- clearly articulate significant implications and consequences of their reasoning
- search for negative as well as for positive consequences
- anticipate the likelihood of unexpected negative and positive implications

8. *Reasoning contains inferences by which we give meaning to data and come to conclusions.*
Good reasoners:

- make inferences that are clear and precise
- usually make inferences that follow from the evidence or reasons presented
- often make inferences that are deep rather than superficial
- often make inferences or come to conclusions that are reasonable
- make inferences or come to conclusions that are consistent with each other

Paul, R. W., & Nosich, G. M. (1992). Using intellectual standards to assess student reasoning. In R. W. Paul (Ed.), *Critical thinking: What every person needs to survive in a rapidly changing world* (2nd ed.). Foundation for Critical Thinking.

Lecture Launcher 1.5 – The Study of Bumps on the Head

Franz Joseph Gall (1758–1828) was a skilled brain anatomist whose descriptions of the brain's gray and white matter, cerebral commissures, and contralateral innervation remain an important part of the knowledge base of neurology and psychology. Also, Gall was among the first to discuss the relationship between brain and behavior. Unlike the dualism of Descartes, Gall's view asserted that the mind was located in the brain. His studies of the brains of nonhuman animals and of people of various ages and types indicated that cognitive abilities are based on the amount and placement of healthy cortical tissue, and that greater amounts of cortical tissue are usually associated with superior functioning. This field was named *phrenology*. An additional important aspect of Gall's view was that personality characteristics and abilities are determined by independent, genetically determined, neurologically distinct structures (Fodor, 1983). Gall postulated 27 faculties, including amativeness (sexual behavior), acquisitiveness, reverence, verbal memory, marvelousness, love of the picturesque, defensiveness, and number.

Gall's neuroanatomy research and "faculty" theory led to the notion of phrenology. Unfortunately, it is phrenology for which Gall is remembered best and as a result, ridiculed. His true accomplishments have been buried under the quackery of phrenology, even though it was his followers, rather than Gall himself, who were responsible for the worst sins of phrenology (Fodor, 1983). What's more, Gall's theories are often misrepresented or misunderstood by critics and modern historians.

Phrenology, as developed by Gall and his followers (such as Spurzheim and Combe), asserted that 1) the mind is located in the brain, 2) mental abilities are determined by innate faculties that are located in specific parts of the brain, 3) the size of the brain devoted to a faculty indicates the strength of that faculty, 4) the shape and external characteristics of the skull at particular locations reflect the brain beneath those locations, and 5) examination of the head/skull allows a description of the individual's personality and abilities (Kurtz, 1985). These ideas supposedly were stimulated by Gall's boyhood observation that several of his classmates who were not generally more intelligent, but who were more scholastically successful because of their superior memory abilities, all had large, bulging eyes (Fancher, 1979), and were furthered by Gall's later anatomical research. Through the study of many individuals, Gall and his associates mapped the regions of the skull they believed corresponded to each of the 27 faculties. For example, Gall's childhood observation led to the hypothesis that verbal memory ability is reflected in the region of the cortex lying immediately behind the eyes: the brain is overdeveloped at that location when ability is great, and causes the eyes to

protrude. Gall's interactions with a "Passionate Widow" revealed a large, hot neck, which he interpreted as a sign that the cerebellum at the lower back of the brain was the seat of sexual behavior ("amativeness") (Fancher, 1979, p. 48).

Phrenology has been attacked on several points. First, the skull does not accurately reflect the underlying brain. Thus, even if the size of the brain at specific locations did indicate the strength of the corresponding faculty, the skull's topology would be worthless for determining this. Second, although certain abilities do seem to be localized in specific parts of the brain (e.g., speech production in Broca's area), the amount of brain tissue does not reflect the level of the ability. Also, the 27 faculties are poorly chosen and described. Many are ill-defined, and others are usually considered to be the result of the combination of several other abilities, not independent faculties. A third major problem was the rather unscientific methods of research used to "confirm" the theory. Gall and his associates reportedly cited only cases that supported the theory, while ignoring or explaining away negative results (Fancher, 1979). Gall employed the concept of "balancing actions" by one or more of the 27 faculties when the characteristics of the skull did not match the characteristics of the subject. As Fancher (1979) points out, with 27 factors involved, Gall could explain just about any result. Theories that do not allow any chance of disconfirmation are not good scientific theories.

Although most of the scientific community quickly savaged Gall and his ideas, phrenology retained great popularity among the general public. By 1832 there were 29 phrenology societies in Great Britain, and several journals devoted to phrenology were being published there and in America. Eventually, however, the interest in phrenology dissipated, and today phrenology receives attention only as a quaint example of pseudoscience. Paul Kurtz lists three primary criteria for pseudoscience: 1) stringent experimental methods are not routinely employed in the research, 2) there is no testable, coherent conceptual framework, and 3) claims of confirmation are made even though questionable methods were used. By these criteria, phrenology is a pseudoscience, not merely an incorrect theory.

Fancher, R. E. (1979). *Pioneers of psychology*. Norton.
Fodor, J. A. (1983). *The modularity of mind*. MIT Press/Bradford Books.
Kurtz, P. (1985). Is parapsychology a science? In P. Kurtz (Ed.), *A skeptic's handbook of parapsychology*. Prometheus Books.
Robinson, D. N. (1982). Cerebral plurality and the unity of self. *American Psychologist*, *37*, 904–910.

Lecture Launcher 1.6
Brief Biographical Profiles of Major Contributors to Psychology

Dragnet's Sergeant Joe Friday famously intoned, “Just the facts, ma’am.” If you’d like to share some fast facts about some pioneers in psychology, the snippets below may be of interest to you.

Wilhelm Wundt (1832–1920)
Born in Neckarau, Germany, Wilhelm Wundt was the fourth child of a Lutheran minister. Despite coming from a family that boasted numerous scholars, scientists, and physicians, Wundt initially was not a good student. After he dropped out of one high school, a teacher suggested that a reasonable goal for Wundt would be a career in the postal service. Wundt’s scholastic abilities improved, however, and in 1855 he graduated at the top of his class in medical school. Wundt then went to Berlin to study physiology with Johannes Müller, and he subsequently decided to become an experimental physiologist himself. Wundt then returned to the University of Heidelberg, where he worked as an assistant for Herman von Helmholtz. It was at Heidelberg that Wundt taught his first course in psychology. The year was 1862.

In 1879, at the University of Leipzig, where he held a chair in philosophy, Wundt established the Institute for Experimental Psychology, the first laboratory whose formal purpose was the scientific investigation of the human mind. Wundt was one of the most prolific contributors to the field of psychology ever. It is estimated that between the years of 1853 and 1920, Wundt wrote 53,735 pages of text. Wundt was not only a voracious writer; he was also responsible for training numerous researchers, some of whom, such as Edward Titchener, brought versions of Wundt’s psychology to America.

Edward Titchener (1867–1927)
Edward Titchener was a British citizen who was a student of Wilhelm Wundt, and subsequently taught at Cornell University during the late 19th and early 20th centuries. Titchener is best known as the major proponent of structuralism, which focused on investigating the structure of conscious experience.

Sigmund Freud (1856–1939)
Sigmund Freud was born in Pribor, Czechoslovakia, in 1856. Although Freud was a gifted student, it took him eight years to finish his medical degree at the University of Vienna, partly because he was interested in so many topics. Freud first pursued a career as a neurologist, but financial concerns forced him into general medical practice. In cooperation with his friend Joseph Breuer, Freud began to treat hysterical women. This is unusual, because at the time there was no known cure for hysteria, which is now known as a conversion disorder. Through trial and error and feedback from his clients, Breuer and Freud developed the technique known as psychoanalysis. Its fundamental rule is honesty; clients must relay all thoughts and feelings uncensored to the analyst. Clients then follow their stream of thought wherever it may lead, a process known as free association. In the course of free association, clients often uncover traumatic events from the past and, upon reliving these events, often experience relief from their symptoms. Freud's first major work, *The Interpretation of Dreams* (1900), detailed the process of dream interpretation, which he felt was the "royal road to the unconscious." Although it took six years to sell the first 600 copies printed, this work was reprinted eight times during Freud's lifetime. Although the technique of psychoanalysis is perhaps Freud's most important legacy, he made many other substantial contributions to psychology. These include the recognition of the importance of sexuality and unconscious processes, a fully developed system of personality, and an appreciation for the conflict between individual desires and the constraints of society.

William James (1842–1910)
William James, often considered the founder of American psychology, was born in New York City but spent much of his childhood traveling between the United States and Europe, where he attended several private schools. James's interest in such varied fields as philosophy, religion, and science were cultivated at home in an enriched environment shared with his brother Henry James, the famous author. William James struggled to find a vocation that suited his various interests, trying his hand at art, chemistry, and finally, medicine. He received his M.D. from Harvard in 1868.

In 1872, James began teaching physiology at Harvard but was preoccupied by his ongoing and deep interest in such philosophical issues as free will and determinism. Though James considered himself a temporary dabbler in the discipline of psychology, his two-volume textbook, *Principles of Psychology* (1890), stood as the field's definitive textbook through the first half of this century. It is still considered one of the best-written texts on psychology and a source of many original ideas. James's contributions to psychology include the notion of a stream of consciousness, the importance of habit and instinct, and a complex theory of the self, theory of emotion, and opening the boundaries of psychology to include topics such as religious beliefs.

John Broadus Watson (1878–1958)
Watson is best known for his insistence that as a true science, psychology's research methods must be objective and its subject matter observable. Often called "the founder of behaviorism," Watson is one of the most dynamic, if enigmatic, figures in the history of American psychology. Born in 1878 in Greenville, South Carolina, Watson had a fairly unremarkable childhood, displaying neither the drive nor the vivid imagination that characterized him in his adult life. His enthusiasm for research and academic accomplishment first developed when he became involved in research work at the University of Chicago. Throughout his career at the university, he studied physiology of behavior in nonhuman laboratory animals, and the patterns he observed later became the basis for his behavioristic theories.

In 1908, he left the University of Chicago to join the faculty at Johns Hopkins University where he entered the limelight of academia with the publication of an article in which he clearly stated the behaviorist point of view. A manifesto of sorts, the paper argued that psychology must become an objective science, an experimental branch of the natural sciences whose goal would be to predict and control behavior. Watson was disenchanted with the introspective methods characterizing psychology at the time and advocated a purely objective and experimental means of studying behavior.

In 1914, Watson published a very important book, *Behavior: An Introduction to Comparative Psychology*, in which he advocated the study of nonhuman animal behavior without resorting to "mentalistic concepts." This was the impetus behind the widespread study of rats and other organisms for the purpose of developing behavior models in American psychology.

Watson's ideas leapt to prominence in a few short years. Because his redefinition of the discipline of psychology seemed to presage the course that modern psychology would take, he was elected president of the APA in 1915. In his presidential address, he linked Pavlovian theories of conditioning to his own behaviorist concepts.

The indefatigable Watson, meanwhile, had launched experiments in which he applied behavioristic concepts to child rearing. The "Little Albert" demonstration, in which he conditioned fear in an infant, is probably his most famous work. His book, *Psychological Care of the Infant and Child*, was the product of his research, and its enthusiastic reception made him a sought-after expert on childcare.

The whole range of human behavior fascinated Watson, and as early as 1917, he had begun studies into human sexual response. He observed sexual behavior in nonhuman laboratory animals but wanted to explore the more complex changes that occurred in humans. The tenor of the times required the utmost discretion in pursuing this avenue of research. Watson used himself as a subject in his sexual response research. He secretly monitored his female laboratory assistant and himself during their sexual intercourse. When Watson's wife discovered the content of his experiments, she sued for divorce and had all of his records confiscated and destroyed. A major scandal resulted; Watson was dismissed from Johns Hopkins and married his research assistant. Unable to find an academic institution that would allow him a position on its faculty, he finally turned to private industry for employment in 1921.

During the years that followed, he applied the principles of behaviorism to public relations and advertising techniques. He collected demographic data as a basis for marketing campaigns and instituted the use of subliminal suggestion and hidden symbolism in advertisements. His expertise and enthusiasm for research in this new field made him a successful executive in one of the nation's largest advertising firms.

Although Watson continued to publish papers in scientific journals, he never again gained recognition from the scientific community. He died embittered at the age of 80.

B.F. Skinner (1904–1990)
Burrhus Frederic Skinner was born and raised in Susquehanna, Pennsylvania, and received a bachelor's degree in English from Hamilton College in New York. Skinner enrolled in the experimental psychology program at Harvard and studied under E.G. Boring, earning his master's degree in 1930 and Ph.D. in 1931. In 1936, he began his academic career at the University of Minnesota; then, in 1945, he took a position as chair of the psychology department at Indiana University. In 1948, however, Harvard offered him a position, which he accepted, and he remained there for the rest of his life. Skinner died of leukemia in 1990.

While Skinner was at Harvard, he was heavily influenced by the work of John B. Watson. From this influence, Skinner dedicated his life's work to studying the relationship between reinforcement and observable behavior. Throughout his career, he insisted that psychology be a scientific, empirically driven discipline. He is considered by many to be one of the most important figures in 20th-century psychology, and his contribution to both clinical and experimental psychology is evident in the work of psychologists who followed his lead, and to this day, extend his work in associative learning research. The principles of reinforcement that he outlined were expanded by clinical psychologists and applied to the conceptualization and treatment of psychological disorders. The application of behaviorism to clinical psychology was not short lived, as empirically supported treatments for anxiety disorders (e.g., panic disorder, simple phobia) and child conduct problems are based upon behavioral principles.

Max Wertheimer (1880–1943) and Kurt Koffka (1886–1941)
Max Wertheimer and Kurt Koffka were early Gestalt psychologists who argued that psychological experience cannot be reduced to its basic elements. Rather, they asserted that behavior and thought as a whole must be studied in order to understand psychological experience.

Wertheimer was born in Prague, Austria-Hungary, in 1880. His father directed a private business college and his mother was an accomplished amateur violinist. Wertheimer studied law, philosophy, and psychology at Charles University in Prague. He later studied philosophy and psychology at the University of Berlin under Carl Stumpf, and then moved to the University of Surzburg in 1904, obtaining his Ph.D. under Oswald Kulpe. Wertheimer first discovered the phenomenon of apparent motion during a train trip, and later conducted studies on the phi illusion at Frankfurt, where Wolfgang Kohler and Kurt Koffka, his cofounders of the Gestalt school, participated as his research subjects. In 1933, Wertheimer fled Germany due to Hitler's rise to power, coming to the United States. He taught at the New School for Social Research in New York City until his death in 1943.

Abraham Maslow (1908–1970)
Maslow was a humanistic psychologist best known for his development of a hierarchy of needs that must be fulfilled in order for an individual to reach self-actualization—the ability to realize one's unique potential as a human being.

Maslow received his Ph.D. at the University of Wisconsin in 1934 under Harry Harlow. He then taught at Wisconsin for a year, followed by appointments at Teachers College of Columbia University, Brooklyn College, and finally, Brandeis University, where he spent most of his academic career. He moved to Menlo Park, California, in 1969 as a resident fellow of the Laughlin Foundation.

Maslow is considered one of the foremost proponents of humanistic psychology and was the founder of the *Journal of Humanistic Psychology*. His influential writings include *Toward a Psychology of Being* (1962) and *Religion, Values and Peak Experiences* (1964). He served in 1968 as president of the APA.

Lecture Launcher 1.7
Wundt's Other Method: Historical and Cultural Psychology

An important, although often overlooked, aspect of Wilhelm Wundt's work is his recognition of two kinds of science, and his belief that psychology belongs to both. In German these two sciences are called *Naturwissenschaften* (naturalistic psychology) and *Geisteswissenschaften* (cultural or social psychology). As the historian of psychology, Ernest "Jack" Hilgard, noted, "In German psychology, the two kinds of science depended upon their distinctive methods." Naturalistic psychology is experimental and follows the methods of physiology, whereas cultural psychology utilizes a historical method and "its substance is the data of cultural residues" (1987, p. 46). Wundt distinguished between questions that were suitable for experimental investigation and those that had to be approached historically, but did not consider these sciences to be mutually exclusive. Rather, "he kept both streams of psychology flowing in the hope of including both in his grand system" (p. 47). Late in his life, between the years 1900 and 1920, Wundt published a 10-volume work in *Volkerpsychologie* (historical–cultural psychology) using the historical method, and included were discussions of language, myth, art, morals, social customs, and laws.

Hilgard noted that in American psychology, there is a long, although muted, history of debate between idiographic and nomothetic science. He writes that this debate "is in some respects parallel to Wundt's distinction between problems that were suitable for experimental investigation and those which had to be approached historically" (Hilgard, 1987, p. 746). Science that seeks general laws, using quantitative and experimental methods, is described as nomothetic, whereas the idiographic approach, using the methods of history and biography, attempts to understand particular events in nature or society.

Gordon Allport is perhaps the best known spokesperson of the idiographic approach. He believed that the individual personality was unique and that a psychology of personality must necessarily be idiographic. Existential and phenomenological psychologists have also argued for the historical method. More recently, however, with the emergence of social constructionism as a growing influence in the field and the increasing recognition of the need to understand behavior within its unique historical and cultural context, Wundt's second science seems to be gaining importance. History seems to be proving Wundt correct in his understanding that psychology must include *both* methods.

Hilgard, E. R. (1987). *Psychology in America: A historical survey*. Harcourt Brace Jovanovich.
https://archive.org/details/elementsoffolkps014744mbp
http://psychclassics.yorku.ca/Wundt/Folk/intro.htm

Lecture Launcher 1.8 – Dates in the Development of Psychoanalysis

The psychodynamic perspective, in both its original and modified versions, was influential in the historical development of psychology. Share with your students some important dates from this perspective's history.

January 7, 1908 ..... Little Hans had his first phobic attack. Eeeek! Horsies!!
February 7, 1870 ..... Alfred Adler was born in Rudolfsheim, Austria.
March 30, 1896 ..... The term *psychoanalysis* was first used in a paper by Sigmund Freud.
April 20, 1950..... Anna Freud speaks at Clark University.
May 6, 1856 ..... Sigmund Freud was born in Freiberg, Moravia.
June 26, 1939 ..... Freud appeared on the cover of *Time* magazine
July 26, 1875 ..... Carl Jung was born in Kesswil, Switzerland.
August 21, 1909..... Jung and Freud departed Bremen to attend a conference at Clark University.
September 16, 1885 ..... Karen Horney was born in Hamburg, Germany.
October 1, 1907 ..... Freud began treating the "Rat Man."
November 4, 1899 ..... *The Interpretation of Dreams* was first published.
December 11, 1880 ..... Josef Breuer began his treatment of "Anna O."

Lecture Launcher 1.9 – John B. Watson's Fall from Grace

John Broadus Watson was a very famous person in his day, something students might not realize, as he usually merits only a few short paragraphs in introductory psychology textbooks. In fact, at the end of his career in psychology he was an esteemed professor at the world-renowned Johns Hopkins University in Baltimore, Maryland. At one time he was recognized as an authority on caring for babies, much as Benjamin Spock or T. Berry Brazelton would later become. He was married, a father, and respected in his field.

All of that ended when he was fired over his affair with a graduate student, Rosalie Rayner. Mary Watson, his wife, insisted that the affair stop, as did Watson's employers. But neither Watson nor Rayner wanted the affair to end (in fact they married in 1921 while his divorce from Mary Watson was still pending), and finally Johns Hopkins insisted that he resign. The subsequent divorce from Mary was front page news at the time.

Watson then began a second successful career in advertising, working for the J. Walter Thompson agency and eventually becoming a vice president there. Ironically, his ad campaigns for Maxwell House coffee and Ponds cold cream probably influenced many more people (at the time) than did his academic writing. It's also plain that he made much more money as an ad executive than he ever did as a professor! A happy ending? Perhaps not. Rosalie Rayner died in 1935, aged only 35 years, and Watson lived alone on their farm until his own death in 1958. By that point he had become embittered and reclusive, and had burned his vast collection of letters and personal papers, effectively putting an end to an important chapter in the history of psychology.

Benjamin Jr., L. T., Whitaker, J. L., Ramsey, R. M., & Zeve, D. R. (2007). John B. Watson's alleged sex research: An appraisal of the evidence. *American Psychologist*, *62*(2), 131.
Buckley, K. W. (1989). *Mechanical man: John Broadus Watson and the beginnings of behaviorism.* Guilford Press.
Duke, C., Fried, S., Pliley, W., & Walker, D. (1989). Contributions to the history of psychology: LIX. Rosalie Rayner Watson: The mother of a behaviorist's sons. *Psychological Reports*, *65(1)*, 163–169.
Todd, J.T., & Morris, E.K. (1994). Modern perspectives on John B. Watson and classical behaviorism. Greenwood Press.

Lecture Launcher 1.10 – People of Color in the History of Psychology in America

Like women, people of color faced many obstacles to their education and participation in psychology. Most institutions of higher learning would not accept Black students, and when they were able to enroll, they often

experienced discrimination. In addition, few undergraduate programs at historically Black colleges and universities (HBCU) offered a major in psychology until after the 1940s. Howard University, the only major HBCU offering graduate study, awarded 32 Ph.D.s to Black students from 1920 to 1950. During the same period, only 8 Black students earned a Ph.D. from 1 of the 10 most prestigious non-HBCU universities. Not only was earning the Ph.D. difficult, but employment opportunities were scarce for Black psychologists, because neither non-HBCU universities nor organizations in the private sector would hire them. Most taught at HBCUs where opportunities to engage in research were limited, thus restricting opportunities for professional recognition.

Guthrie, R. V. (1976). *Even the rat was white: A historical view of psychology*. Harper and Row.
Schultz, D. P., & Schultz, S. E. (2016). *A history of modern psychology* (11th ed.). Cengage.

Lecture Launcher 1.11
Women in the History of Psychology in America

Psychology has renewed its appreciation of diversity in human behavior. Part of that diversity includes celebrating the accomplishments and contributions of women in the field of psychology. Share with your students the stories of some key figures from psychology's history:

Mary Whiton Calkins (1863–1930) attended Harvard University and worked with William James, but because Harvard did not officially admit women into graduate programs, Calkins never received a Ph.D. from Harvard. At best, Harvard offered her the degree from its sister school, Radcliffe. She refused, stating that she ought to be given the degree from the institution where she earned it. Calkins collaborated with Edmund Sanford from neighboring Clark University on a variety of research projects. At that time, women with advanced degrees or training primarily received faculty positions at all-women institutions, such as Wellesley and Vassar Colleges. Calkins received a position at Wellesley College in 1887 and established a prolific laboratory in 1891 producing short-term memory research (Madigan & O'Hara, 1992). In 1906, Calkins was the first woman elected president of the APA.

Margaret Floy Washburn (1871–1939) was the first person to receive a Ph.D. from Edward B. Titchener in 1884, the leading structuralist in American experimental psychology at that time (Goodwin, 1999). She was also the first woman to receive a Ph.D. in the United States. Interestingly, Washburn never believed Titchener taught her much, as she became a leading comparative psychologist at Vassar College. She produced her most influential work in *The Animal Mind* in 1908, and in 1921, she was elected the second woman president of the APA. She suffered a cerebral hemorrhage in 1937 and died from its complications in 1939 (Scarborough & Furumoto, 1987).

Christine Ladd-Franklin (1847–1930) was a mathematician who developed an interest in visual perception and made great contributions to theories of color vision (Furumoto, 1992). She married a math professor from Columbia University, and she occasionally taught adjunct courses there. However, she was rarely paid. Like Calkins, she did not receive her Ph.D., although she had completed all of the required work. Johns Hopkins University finally granted her the degree shortly before her death. She accepted the degree in person.

At the turn of the 20th century, one popular belief held that there was more variability in intelligence in men than in women. One implication of this belief was that even the brightest of women would never be as bright or even "outshine" the brightest of men. Black psychologist ***Leta Stetter Hollingworth*** (1886–1939) challenged these beliefs with her research, which showed no evidence that the distribution of intelligence test scores differed between women and men (Hollingworth, 1914). She also challenged the popular belief that people's intellectual abilities were affected by menstrual cycles, again finding no statistical evidence to support such claims (Silverman, 1992). Hollingworth's contributions are often seen as the seedlings for the formal study of the psychology of women.

Black psychologist ***Mamie Phipps Clark*** (1917–1983) received her bachelor's and master's degrees from Howard University and her Ph.D. from Columbia University in 1944. She is well known for her studies of racial differences in racial identity and self-concept (Clark & Clark, 1950). In the 1940s and 1950s racial

segregation was becoming institutionalized, and Clark became interested in the effects of segregation on Black children. She conducted a series of studies in which Black and White children were shown Black and White dolls. The children were first asked to pick the doll they most looked like, establishing a measure of racial identity. Then, children were asked which doll they would most like to play with. Both White *and* Black children preferred the White doll, suggesting for both races of children a preference and perhaps more value on being White. Clark's work was considered and noted in the Supreme Court's 1954 ruling in *Brown v. Board of Education* desegregation case, which ruled that public school segregation was unconstitutional.

Clark, K. B., & Clark, M. P. (1950). Emotional factors in racial identification and preference in Negro children. *Journal of Negro Education, 19,* 341–350.
Furumoto, L. (1992). Joining separate spheres: Christine Ladd-Franklin, woman-scientist. *American Psychologist, 47,* 175–182.
Furumoto, L., & Scarborough, E. (1992). Placing women in the history of psychology: The first American women psychologists. In J. S. Bohan (Ed.) *Seldom Seen, Rarely Heard*, 337–353. Westview Press.
Goodwin, C. J. (1999). *A history of modern psychology.* Wiley.
Hollingworth, L. S. (1914). Variability as related to sex differences in achievement. *American Journal of Sociology, 19,* 510–530.
Madigan, S., & O'Hara, R. (1992). Short-term memory at the turn of the century. *American Psychologist, 47,* 107–174.
Scarborough, E., & Furumoto, L. (1987). *Untold lives: The first generation of American women psychologists.* Columbia University Press.
Silverman, L. K. (1992). Leta Stetter Hollingworth: Champion of the psychology of women and gifted children. *Journal of Educational Psychology, 84,* 20–27.
Sokal, M. (2016). Elizabeth Scarborough (1935–2015). *American Psychologist*, *71*(3), 246.

Lecture Launcher 1.12
Basic Research vs. Applied Research

For fiscal year 2022, about $2.2 billion was requested by the president of the United States for the National Institute of Mental Health (NIMH). The money budgeted to the NIMH is used to fund psychology research around the country. In broad terms, these research projects can be divided into two categories: basic and applied. The goal of basic research is simply to expand our understanding and increase our knowledge. For example, a basic research project sponsored by the NIMH may study the function of a single protein in the brain to figure out what it does. The goal of applied research, on the other hand, is to solve a particular problem, such as developing pharmaceutical agents to treat depression. How much taxpayer money should go to basic versus applied research can be a contentious issue. Some feel that basic research wastes money pursuing "knowledge for knowledge's sake," and that this money would be put to better use developing treatments for psychological and neurological problems. Supporters of basic research argue that practical treatments often arise from the knowledge gained from basic research, and that applied researchers wouldn't know where to begin if not for basic research.

After introducing students to the debate over funding for basic versus applied research, ask for volunteers to share their opinions with the class. How would they distribute the NIMH budget? As students discuss the issue, you may want to pose the following questions: When Congress appropriates funds to the NIMH, should they be allowed to specify what percentage goes to basic or applied research? Can the United States afford to fund research that may have no clear benefit to society? What role does serendipity play in scientific discovery? Make sure students come away from the lesson with an understanding of the importance of both types of research.

https://www.nimh.nih.gov/about/budget/fy-2022-budget-congressional-justification

▼ CLASSROOM ACTIVITIES AND EXERCISES

Activity 1.1 – Inference or Observation?

The idea that observation is the most reliable method for measuring behavior assumes that the observation is free of any interpretation or judgment by the observer. Distribute **Handout 1.1** to students. This exercise asks students to decide whether each of 14 statements is strictly objective or whether it includes an inference made by the observer.

Answers:

1. *observation*	2. *inference*	3. *inference*	4. *observation*	5. *inference*
6. *inference*	7. *inference*	8. *observation*	9. *inference*	10. *observation*
11. *inference*	12. *inference*	13. *observation*	14. *observation*	

Activity 1.2 – Psychology's Goals Applied to Matchmaking

Based only on the descriptions provided in the grid below, ask your students to guess which pairs of the people listed belong together. There is no right or wrong answer. Tell your students to follow their instincts.

Now lead your class in a discussion of their matchmaking decisions with respect to the goals of psychology:

- *How would they describe the behaviors they engaged in while trying to settle on appropriate matches?*
- Did they read all the descriptions before they began?
- Did they find the decisions easy to make?
- Did they change their minds several times?

- *How would they explain their behavior?*
- What rules do they believe they used to match up the couples? Were they most concerned about age? About occupations? About leisure activities? Did they use some combination of all three descriptions? What inferences did they make in their decisions, such as perceived gender identity? What does the factor(s) that they used most frequently say about them personally and their selection of a partner?

- *How might their explanation allow them to predict which real-world relationships would succeed?*
- Suppose that based on their day-to-day observations of relationships, they focused on occupations while doing their matchmaking. Are they willing to generalize from the predictions they made on this task to predictions in the real world? Can they begin to imagine the types of research they might conduct to test those predictions?

- *Does their explanation allow them to modify or improve their own relationship-seeking behavior or to give better advice to others?*
- Have they learned from this exercise what matters most to them in a relationship? What more would they like to learn from research?

- *Could they learn something that would allow them to improve the quality of their own or other people's lives?*
- If their research reveals the factors that help determine which relationships, in general, will endure, they should be able to improve the quality of people's lives.

David Age: 21 Job: Car mechanic Enjoys: Gourmet food	Dana Age: 23 Job: Advertising executive Enjoys: Movies
Chris Age: 29 Job: Dog groomer Enjoys: Gardening	Janet Age: 35 Job: Lawyer Enjoys: Roller coasters
Sandy Age: 54 Job: Flight attendant Enjoys: Hang gliding	Karen Age: 18 Job: Salesclerk Enjoys: Art museums
Jamie Age: 20 Job: Administrative assistant Enjoys: Football	Pat Age: 56 Job: Pediatrician Enjoys: Opera
Jerry Age: 37 Job: College professor Enjoys: Comic books	Rahul Age: 22 Job: Store manager Enjoys: Scuba diving

Activity 1.3 – Contradictory Beliefs

Consider these contradictory beliefs:

Birds of a feather flock together.....*Opposites attract*
Absence makes the heart grow fonder.....*Out of sight, out of mind*
You can't teach an old dog new tricks.....*Never too old to learn*
The squeaky wheel gets the grease.....*The nail that sticks up gets hammered down*
You can't judge a book by its cover.....*Where there's smoke, there's fire*
Better safe than sorry.....*Nothing ventured, nothing gained*
Two heads are better than one.....*Too many cooks spoil the broth*
Never look a gift horse in the mouth.....*Beware of Greeks bearing gifts*

Often students will have anecdotal stories about each belief. Ask students to think about their beliefs from an empirical point of view. You may want to facilitate discussion by providing students with the following questions:

Can you rely on a single person's account to believe in a phenomenon?
How might each set of beliefs be tested empirically?
When will you "believe" in a certain phenomenon?

Activity 1.4 – Name That Historical Psychologist

To give students practice remembering some of the important people in the history of psychology, distribute **Handout 1.2**. This handout gives descriptions of psychologists through history. Students should identify the psychologist from the description.

Answers:

1. Titchener	2. Wundt	3. Gall	4. Freud	5. James
6. Darwin	7. Titchener	8. Wundt	9. Freud	10. James

Activity 1.5
A Jigsaw Puzzle Approach to Learning the History of Psychology

For this activity, you will need one or more colorful children's jigsaw puzzles, depending on class size. Each puzzle should measure approximately 9 inches by 12 inches and contain 12 to 15 pieces. There should be at least one puzzle piece per student. Thus, four puzzles would be needed for a class of 50, with fewer puzzles needed for smaller enrollments.

Break the puzzles apart and distribute the pieces randomly throughout the class, being sure not to give adjacent puzzle pieces to adjacent students. After all students receive a piece, invite them to tell you everything they can about their piece. Ask them to consider you as someone for whom everything must be reduced to a basic level and explained in terms that cannot be reduced further. Their descriptions of the puzzle pieces should not assume prior knowledge on your part (e.g., "It has a Ninja turtle on it" would assume prior knowledge). Eventually, accept descriptions such as "It is round," "It has color on it," and "It has no odor" because these answers are more fundamental than the previous ones. This exercise helps students understand the difficulty of reducing anything to its most fundamental level. When they have nothing more to say, introduce the word *structuralism* as a way of knowing an object or behavior by reducing it to its most basic parts. Then, have students tell you how much they know about their piece and how much they still need to know about it. This helps students to realize the limits of structuralism.

Next, students should figure out what their piece does. Encourage them to mill about the room to find adjoining pieces. (This mingling also serves as an excellent icebreaker.) After the students see how their pieces work in conjunction with other pieces, introduce the word *functionalism* as a way of knowing an object or behavior by seeking to understand its function or purpose. In short, discuss what the piece can do and what it cannot do. Then, ask students if their knowledge of their piece is complete. Although they know what its parts are (structure) and what it does (function), is there more to know? As isolated groups of students hold their two-piece objects, they realize the limitations of this approach as well. Unless everyone continues to explore, they will not obtain larger meaning and additional knowledge.

Finally, have students continue to work with their pieces to assemble all relevant parts into a whole. Again, with multiple puzzles and random piece distribution, students must cooperate and communicate to create meaningful whole puzzles. After puzzle assembly, introduce the term *Gestalt psychology* as a way of knowing an object or behavior by creating a whole from parts, such that the whole derives its meaning only when the parts relate and work together. Ask if anyone has heard the maxim "The whole is greater than the sum of its parts" and explain its meaning in relation to what they have just learned.

Krauss, J. (1999). A jigsaw puzzle approach to learning history in introductory psychology. *Teaching of Psychology*, *26*(4), 279–280.

Activity 1.6 – Pillars of Psychology

This activity will help students summarize the various perspectives, emphases, and frameworks (or "pillars") of psychology, distinguish among them, and appreciate the value of eclecticism. For this exercise, students should work in small groups. Each group should take one of the pillars discussed in Chapter 1 (biological, cognitive, developmental, social/personality, mental and physical health). In the first step, using their texts

and their minds, they are to outline the key concepts associated with this pillar on a PowerPoint slide or handout, in preparation for presenting their perspective to the class. In the second step of this exercise, students are to read a brief case history and analyze the case according to their chosen framework. The third step is to present their perspective and their analysis to the class.

If you have a small class, you can have each group present its perspective and analysis orally, using PowerPoint or handouts as visual prompts. If you have a large class, you may want to have groups create posters, then arrange posters on similar perspectives together around the edges of the room. You could then tour the room and ask a few key questions of students from each group while other students watch and listen.

Detailed instructions for this activity are contained in **Handout Master 1.3.** You should follow the presentations with a discussion of the difference between a pillar and a specific theory. Finally, you should conclude with a discussion of eclecticism, the notion that many perspectives are needed to construct comprehensive explanations of behavior and mental processes.

Activity 1.7 – What Kind of Psychologist Am I?

To give students practice at learning what specific psychologists do, use **Handout 1.4**. This handout describes where you find a specific psychologist or what they might do. Students must name the subspeciality from the description.

Answers:

1. Developmental
2. Industrial/Organization
3. Counselor
4. Neuroscience/Physio
5. Social
6. Cognitive
7. Educational
8. Psychiatrist

Activity 1.8 – What Psychologists Know

The topic of “what psychologists do” is closely related to “what psychologists know.” Breakthroughs in knowledge both central and tangential to psychology occur daily, and there’s an easy way to find out about them. Encourage your students to search for and subscribe to one of the many listservs or RSS feeds that provide information about psychology headlines. These emails/feeds are typically free, and although some topics may be of more or less interest to your students, all the information gets delivered quickly and efficiently.

Activity 1.9 – Thinking About Your Interests in Psychology

The textbook describes various specialty areas in the field of psychology. Ask students to think about these subfields, even looking ahead in the textbook to find more information. Ask students to then rank their interests in psychology’s specialty areas from 1 (most interesting) to 12 (least interesting).

Clinical psychology
Cognitive psychology
Comparative psychology
Counseling psychology
Developmental psychology
Educational and school psychology
General experimental psychology
Industrial/organizational psychology
Personality psychology
Neuroscience and physiological psychology
Quantitative psychology
Social psychology

You may want to tabulate the class's interests and compare the results to descriptive data readily found on the Internet (e.g., the American Psychological Association no doubt compiles information on the percentage of professionals in each major subfield of psychology). Also, it may be of interest to keep the students' rankings, then ask them to repeat the ranking at the end of the course; return their original rankings and ask students to discuss any changes that occurred (and why) from the beginning to the end of the course.

▼ HANDOUT MASTERS

1.1 – Inference or Observation?
1.2 – Name That Historical Psychologist
1.3 – Pillars of Psychology
1.4 – What Kind of Psychologist Am I?

Handout Master 1.1 Inference or Observation?

Decide whether each statement is objective (O) or whether it includes an inference or interpretation (I) made by the observer.

_____ 1. Eero walked up four stairs, opened the door, and walked through.
_____ 2. The bright light caught the attention of the cat and made it stop what it was doing.
_____ 3. As she began to tell the joke, her excitement about the punch line caused her to break out in laughter.
_____ 4. Gricelda had the book open on the table and she sighed 14 times while reading the page.
_____ 5. After the lecture started, Barney looked out the window and started to daydream.
_____ 6. As she sat there, Anita began to cry because she missed her family she left back at home.
_____ 7. When the ballet was over, she rushed out the door to get away from the boredom.
_____ 8. She sat and wrote her paper for 30 minutes without taking any breaks except for a glass of water.
_____ 9. Sharika ran from the dog because she was frightened.
_____ 10. Yvette talked on the phone while filing her nails, and she wrote solutions on the page to the crossword puzzle.
_____ 11. Jonas wet his lips, puckered them up, and blew air through his lips.
_____ 12. Enrico played in the corner by himself because he was shy and was afraid of the other children.
_____ 13. The man sat at the table and took 12 sips from his coffee while speaking on the phone.
_____ 14. The dog looked at the squirrel, licked his lips, and turned the other way.

Handout Master 1.2 Name That Historical Psychologist

For each of the following descriptions, identify the historical psychologist each one refers to.

1. This person popularized Wundt's ideas in the United States.

2. This person founded the first laboratory dedicated to experimental psychology.

3. This person proposed the notion of phrenology.

4. This person believed that the unconscious mind had a significant effect on our behavior.

5. This person was a leader in the functionalist movement.

6. This person developed evolutionary theory and argued that survival was based on the successful adaptation of an organism to its environment.

7. This person popularized structuralism in the United States.

8. One of this person's preferred research methods was trained introspection.

9. This person believed that most problems were caused by emotional traumas experienced during early childhood.

10. This person supported the perspective that it was important to understand why and how a behavior occurs, rather than to simply catalog or analyze the behavior.

Handout Master 1.3 Pillars of Psychology

Step 1
Pick one of the pillars of psychology listed below. Each group, working together, is responsible for teaching the class about its perspective by preparing a brief handout that summarizes the important points about your pillar or emphasis in psychology.

Biological Cognitive Developmental Social/Personality Mental and Physical Health

Step 2
Read the following case history. Working with your group, decide how a psychologist using your pillar would explain the CAUSE of Arline's behaviors. *Do not rely on common sense and intuition in discussing this case. Imagine that you are a steadfast advocate of this particular viewpoint and construct your arguments from that point of view.* Summarize your ideas as a group and be prepared to present them to the whole class.

> Arline is a 19-year-old college student. She has requested help from her university's counseling center at the urging of her friends, who have recently described her as "not the same Arline we used to know." Although she's always been a bit on the shy side, she has become increasingly withdrawn over the course of the academic year, preferring to spend time alone in her dorm room rather than socializing. She has continued attending classes, but her grades have been slipping: As and Bs are starting to become Bs and Cs on her assignments. Arline has admitted that she's been feeling a lot of stress lately. As a first-generation college student, she reports that she sometimes thinks of herself as "an imposter," not really "college material," despite her superior performance in high school and the competitive scholarships that finance her college education. She thinks she should be living a simpler life in her small hometown with her parents, working in their hardware store, which, admittedly, is a career path they might prefer for her. She stays in touch with her friends from home, but mainly through social media, feeling in many ways that she's "outgrown" that part of her life. She enjoys her philosophy class, although it's led her to start reading what her friends call "some pretty dark stuff," and caused her to adopt a diet of restricted caloric intake. "That can't be good for her body, let alone her mind," one friend observed. Although Arline admits that "I'm thinking thoughts I haven't thought before, and feeling feelings she I haven't felt before," she doesn't seem particularly alarmed by her own behavior. Her appearance at the counseling center is mainly to appease her friends, although after a few sessions with a counselor, Arline admits that "some good might come of this."

Step 3
Present your perspective and your analysis of the case history to the class.

Handout Master 1.4 What Kind of Psychologist Am I?

To practice understanding the interests of specific types of psychologists, identify the specialty best represented by each statement (ex: cognitive, social, neuroscience, etc.).

1. I am a psychologist very interested in understanding the typical age at which children can be expected to make moral decisions that benefit others.

2. I am a psychologist interested in helping companies make sure they are hiring the best employee for the job, and that they improve production by their employees to the maximum extent possible.

3. I am a psychologist interested in helping people who struggle with day-to-day issues of living.

4. I am a psychologist most interested in understanding how changes in hormones in the human body might impact the way we think and behave.

5. I am a psychologist interested in understanding how the physical presence of a loved one can ease pain after surgery and impact a patient's attitude about recovery.

6. I am a psychologist interested in how people think about things and how that impacts their impressions, attitudes, and behaviors.

7. I am a psychologist most interested in helping children to learn. I like to investigate methods that can be used to help children learn the rules of grammar more easily.

8. I am a doctor who can prescribe medication for someone experiencing the symptoms of a diagnosed psychological disorder.