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*Titles in the Worth Video Anthology (videos formerly available separately in the Video Tool Kits, ActivePsych [Digital Media Archive, 2/e, and Scientific American, 3/e], Digital Media Archive, 1/e, and Psychology: The Human Experience) are not described within the core resource unit. They are listed, with running times, in the Lecture Guides and described in detail in their Faculty Guide, which is available at www.worthpublishers.com/mediaroom.
RESOURCES

Introducing Psychology

Introductory Exercise: Fact or Falsehood?
The Preface to these Instructor’s Resources includes suggestions on how to use the Fact or Falsehood questionnaires that are provided in the Lecture Guides that accompany the Myers’ text. These questionnaires are intended to stimulate student interest in the topic; they may also be used as a quick review.

Psychology’s Early Roots

Lecture/Discussion Topic: Aristotle’s Psychology

You may want to extend the text’s brief mention of Aristotle. Daniel Robinson stated that Aristotle gave “history’s first fully integrated and systematic account” of psychology. “Directly and indirectly,” continues Robinson, “it has been among the most influential as well. Within the surviving works can be found theories of learning and memory, perception, motivation and emotion, socialization, personality.”

Son of a court physician, Aristotle was affluent by birth. Still, as Morton Hunt explains, he was an extraordinarily hard worker who spared nothing in his pursuit of knowledge. Because medical knowledge was traditionally passed from father to son, Aristotle learned much about biology. This likely fostered a strong scientific and empirical perspective.

Obviously, Aristotle was often wrong. For example, he claimed that mice die if they drink in summertime, that eels are generated spontaneously, that humans have only eight ribs, and that men have more teeth than women. He also thought that the mind must be in the heart because people can recover from head injuries, while wounds to the heart are always fatal. The brain’s function? For Aristotle, it was to cool the blood when it becomes overly warm.

Nonetheless, Aristotle anticipated modern science in his insistence that sense perceptions are the essential raw material of knowledge. Direct observation, he claimed, is the foundation of understanding. In admitting that he did not know how bees procreate, he wrote: “The facts have not yet been sufficiently established. If ever they are, then credit must be given to observation rather than to theories, and to theories only insofar as they are confirmed by the observed facts.”

Aristotle valued not only deductive reasoning and formal logic but also inductive reasoning, that is, using observed cases or examples to arrive at generalizations. For Aristotle, neither the soul nor the psyche—the thinking part of the soul—can exist apart from the body. Clearly, he was a monist. In describing how the mind uses both inductive and deductive reasoning to arrive at knowledge, he provided, according to Robert Watson, “the first functional view of mental processes.” Our minds, argued Aristotle, note the similarities in a series of objects and from those commonalities form a “universal,” a word or concept representing not an actual thing but a general principle. This provides the avenue to higher levels of knowledge and wisdom. Thus, reason is an active, organizing process that acts upon sense data. His description of thought, and especially of the steps taken in thinking, claims Morton Hunt, “sounds as if he based it on laboratory findings. He had none, of course, but being so diligent a collector of biological specimens, he may well have done something analogous, that is, scrutinized his own experiences and those of others, treating them as specimens on which he based his generalizations.”

Aristotle also formulated a theory of motivation in terms of pleasure and pain, described drives that produce various kinds of behavior (e.g., courage, friendship, and temperance), and even outlined the theory of catharsis to explain our emotional experience of observing theatrical tragedy. Concludes Robert Watson, the “study of Aristotle is rewarded by a feeling of wonder at the modernity of much of what he says about psychological matters. . . . He was, of course, wrong in many of his ‘facts’ and he omitted important topics, but his overall framework of growing, sensing, remembering, desiring, reacting, and thinking, with but a few changes, bears more than a resemblance to modern psychology.”


Lecture/Discussion Topic: Psychology’s First Experiments

Morton Hunt’s The Story of Psychology is a wonderful resource for teaching the history of psychology. This superbly written account includes separate chapters on Wilhelm Wundt, William James, and Sigmund Freud, as well as chapters on major schools such as behaviorism and Gestalt psychology.

Hunt opens his book with an account of history’s first recorded psychological experiment. In the seventh century B.C., Psamtick I, King of Egypt, wanted to prove the long-held belief that the Egyptians were the
most ancient race on earth. He posed the hypothesis that if children had no opportunity to learn a language from the people around them, they would spontaneously speak the primal, inborn language of humankind, that is, the natural language of its most ancient people, which Psamtick presumed to be Egyptian. To test his hypothesis, Psamtick kidnapped two infants of a lower-class mother and ordered a herdsman in a remote area to raise them. The children were to be properly fed and cared for but were never to hear anyone speak a word. The experiment worked, although not with the result expected by Psamtick. One day, when the children were just 2 years old, they ran up to the herdsman as he returned to his cottage from work and cried out “Becos!” Although he did not understand them, when they continued to repeat the word, he reported back to the king. The children were brought to the royal court. When the king also heard them say “Becos,” he inquired and learned that becos was the Phrygian word for bread. To his great disappointment, the king concluded that the Phrygians were an older race than the Egyptians.

Hunt also records the birth of contemporary psychology on a December day in 1879. Wilhelm Wundt, a middle-aged professor at the University of Leipzig, and two young students, Max Friedrich, a German, and G. Stanley Hall, an American, set up the apparatus for an experiment on the third floor of a shabby building called Konvikt (“hostel” or “retreat”). On a table they placed a chronoscope (a brass clocklike mechanism with a hanging weight and two dials), a “sounder” (a metal stand with a raised arm from which a ball would fall onto a platform), and a telegrapher’s key, battery, and rheostat. The various pieces were all wired together with a circuitry as simple as the most basic electric train. The three men intended to collect data for Friedrich’s Ph.D. dissertation on “the duration of apperception”—the time lag between the participant’s recognition that he has heard the ball hit the platform and his pressing of the telegraph key. Hunt writes, “It is not on record who made the ball drop that day and who sat at the key, but with the first clack of the ball on the platform, the click of the key, and the registration of elapsed time on the chronoscope, the modern era of psychology had begun.”


Lecture/Discussion Topic: History of Psychology

The text account of psychology’s history can be readily expanded in class. A convenient way to organize the presentation is in terms of the discipline’s early theoretical schools, in which psychologists typically shared a common theoretical and methodological orientation and worked on similar problems. Three early schools are worth discussion because their contributions to psychology are covered later in the text: Gestalt psychology, psychoanalysis, and behaviorism. See also the next Lecture/Discussion Topic for a description of William James and functionalism.

Gestalt Psychology. In Germany, Max Wertheimer, with assistance from Kurt Koffka and Wolfgang Köhler, founded Gestalt psychology in revolt against Wundt. Interestingly, it was Wertheimer’s simple and ingenious explanation of apparent movement, a phenomenon the structuralists could not explain, that led to the development of this new psychological school. Wertheimer argued that apparent movement existed as a real phenomenon, irreducible to simpler sensations. Gestalt psychologists defined psychology as the study of the immediate experience of the whole organism. Reacting to the structuralists’ analytical approach, they argued that the whole is different from the sum of its parts. Psychology should attend to the molar aspects of behavior and experience. Perception—in particular, the principles by which it is organized—received the most attention from this group. These grouping rules are discussed with material on perceptual organization. Gestalists also initiated the study of insight and problem solving in animals and humans, issues that had previously been ignored. Many trace contemporary interest in cognitive psychology and phenomenology to the Gestalt movement. The discussion of thinking introduces some of this research.

Psychoanalysis. Unlike the other schools, psychoanalysis developed outside a university setting. It showed little interest in most of the traditional subject areas of psychology. Led by Sigmund Freud, an Austrian physician, it focused on the etiology, development, and treatment of abnormal behavior. From working with troubled patients in his clinic, Freud concluded that unconscious mental forces direct our everyday behavior. Psychological maladjustment results from unresolved conflicts of which a person is unaware. Free association and dream analysis were among the important techniques Freud used in exploring the unconscious. He maintained that awareness of the unconscious forces should enable patients to lead more rational and satisfying lives. Freud’s theory of personality in depth, and his approach to therapy are discussed in depth later in the text. Freud made just one trip to the United States. In 1909, he accepted G. Stanley Hall’s invitation to speak at the twentieth anniversary celebration of Clark University.

Behaviorism. In the United States, John Watson led the revolt against introspection that produced the most influential school of psychology. Trained as a functionalist, Watson shifted attention from the functioning of the mind to behavior. He argued that psychology should study only what can be observed and measured objectively. Psychology was redefined as the scientific study of observable behavior. The study of consciousness...
through the method of introspection (looking inward) was relegated to the trash heap. Watson’s ideas were so influential that two years after starting the revolt he was elected president of the American Psychological Association. Behaviorists focused on how behaviors are learned and modified, and thus most of their influence has come through their theories of learning.

Clearly, B. F. Skinner was modern behaviorism’s most important and controversial figure. Operant conditioning was the focus of much of his work and is discussed as part of the text coverage of learning. Skinner insisted that external influences shaped behavior. He died in 1990, still resisting the growing belief that cognitive processes have a place in the science of psychology. An increasing number of psychologists in the 1960s began to recognize that strict behaviorism had its limitations, and the cognitive revolution helped the discipline to recapture its initial interest in mental processes. Today, we define psychology as the science of behavior and mental processes.

Lecture/Discussion Topic: William James—Founding Father of American Psychology

William James is one of the most important and intriguing figures in the history of American psychology. On the seventy-fifth anniversary of the American Psychological Association, opening speaker David Krech described James as “our father who begat us.” Morton Hunt’s chapter in The Story of Psychology provides a rich resource for a discussion of James.

James, the first psychology professor at an American university (Harvard), began teaching the subject in 1875. Within two decades, psychology was taught at two dozen universities, three psychology journals were being published, and a professional psychology society had been founded.

James introduced experimental psychology to the United States. In fact, he and his students started performing laboratory experiments about the same time as Wundt and his students. Although James recognized the value of experimentation, he found it boring and spent no more than two days a week in the laboratory. Sometimes, he even disavowed the label of psychologist. He told a friend, “I naturally hate experimental work.” Referring to Wundt’s laboratory work, he lamented, “The thought of psychophysical experimenta-
tion and altogether of brass-instrument and algebraic psychology fills me with horror.” Nonetheless, he accepted its value, and his students conducted a wide variety of experiments. Moreover, he forced himself to do it when he was convinced it was the best way to prove or disprove a theory. For example, he used himself as a research participant in testing the ancient belief that memory, like a muscle, can be strengthened through exercise. In a series of memory exercises, he found that exercise actually diminished, at least temporarily, the strength of his memory.

Hunt notes that it took James 12 years to complete the first textbook in psychology. The mammoth work of nearly 1400 pages in 2 volumes could hardly be used in the classroom. James quickly turned out an abridged version. The full-length version was known as “James,” and the abridgement was referred to as “Jimmy.” In 1894, James was the first American to call attention to Sigmund Freud, and in 1909 he met Freud at Clark University during the psychoanalyst’s only visit to the United States. In contrast to Freud, James avoided creating a theoretical system, founded no school, trained few graduate students, and had no school of followers. Although he said something about every topic in psychology, the following six ideas constituted his chief influence.

1. **Functionalism:** For James, the proper study of psychology was the introspective analysis of the “states of mind” that we are conscious of in everyday life and of the functions they perform for us. He thought that the mind’s processes had evolved because of their life-preserving functions. Thus, to understand these complex processes, we need to know what functions they perform. Hunt suggests that we should not view functionalism as a system. Indeed, James deliberately avoided presenting his ideas as a coherent whole because he thought it was far too early in the history of the discipline for any grand theory.

2. **The nature of mind:** James examined every solution to the mind-body problem and found none to be satisfactory. He thought psychologists should lay aside the whole mind-body problem because the discipline was not ready or able to articulate the connection between physiological states and mental states. Rather, for the present, its proper concern should be the description and explanation of such processes as reasoning, attention, will, imagination, memory, and feelings. James’ suggestion would become the dominant view within many branches of psychology.

3. **The stream of thought:** Using introspection (looking inward) as the major approach to the mind, James argued that his results pointed to an unbroken flow of complex conscious thought. Each person’s consciousness is a continuum, not a series of linked experiences or thoughts. Although the objects of our thoughts or perceptions may seem distinct and separate, our awareness of them forms a “river” or “stream,” the best metaphor for our consciousness.

4. **The self:** James suggested that “the belief in a distinct principle of selfhood” was an essential part of the “common sense of mankind.” Thoughts are
not merely thoughts; they are *my* or *your* thoughts. The perception of personal identity arises from the continuity of the stream of consciousness. From moment to moment and from day to day, I know that I am the same as I was a moment ago, a day ago, a decade ago. These feelings and the acts associated with them can be studied, and thus they constitute the "empirical self."

5. **Will:** Some observers suggest that James’ most valuable contribution to psychology was his theory of will—the conscious process that directs voluntary movements. Our vast supply of information and experience in achieving desired ends is what leads us to will an act in the first place. Sometimes, we act unhesitatingly. At other times, choosing which idea to ignore and which to attend to becomes the act of willing. The choice can be instantaneous or the result of long deliberation and reasoning. To believe in complete determination, thought James, would make us passive and powerless. The belief in free will allows us to consider alternatives, to plan, and, finally, to act on our plans.

6. **The unconscious:** Although James was primarily concerned with conscious mental life, he carefully distinguished between those acts that we perform by consciously commanding muscular movements and other acts that have been practiced and thus have become automatic. We walk, climb steps, and dress without thinking of the necessary movements. James wrote that “It is a general principle in psychology that consciousness deserts all processes where it can no longer be of use. We do better without thinking of the movements required.” In this way, James anticipated contemporary research in which complex voluntary movements, such as piano playing and driving, become “overlearned” and are largely performed unconsciously. In contrast to Freud, James did not see the unconscious as the mind’s way of banishing unacceptable sexual drives from awareness.

7. **Emotion:** James’ theory of emotion was revolutionary and the James-Lange theory, discussed under Theories of Emotion, is still highly regarded in psychology. This “minor” theory led to far more research than any of James’ other ideas. James argued that the emotion we feel is not what causes bodily symptoms such as a racing heart or sweaty palms. Instead, the nervous system, reacting to an external stimulus, produces those physical symptoms and our perception of them is what constitutes emotion.

With these ideas, James transformed an abstract science into a discipline that spoke directly to personal interests and concerns. James also influenced psychology in two other practical ways. His suggested applications of psychological principles to teaching became the core of educational psychology. In addition, James succeeded in convincing the Rockefeller Foundation and other groups to allocate millions of dollars to the mental hygiene movement, the establishment of mental hospitals, and the training of mental health professionals.


**Classroom Exercise: Eminent Psychologists**

Marty Dennis of Augustana College passes along a simple exercise for introducing psychology and its history. It can help correct students’ common misconceptions about the discipline.

Ask students to write the name of “an eminent psychologist from the past” and “a living eminent psychologist and the work for which he or she is known” on half a sheet of paper or an index card. Collect the responses and read them in class. By the time you get to the tenth or fifteenth “Freud,” the class will be chuckling. Most students will leave the second name blank.

Warn students that Freud may receive less coverage in the text and course than they might anticipate because psychologists certainly do not consider Freud to be the “father” of the discipline. In fact, most have real concerns about the scientific validity of his theory and method. Most important, the study of psychopathology, personality, and psychotherapy, for which Freud is best known, represents only a small part of the discipline. Dennis reports that the exercise helps many students to realize that their view of the discipline is too narrow. The exercise also sets the tone for a course oriented toward psychological science.


**Psychological Science Develops**

**PsychSim 5: Psychology’s Timeline**

This activity provides a comprehensive synopsis of the origins of psychology, the early history of psychology as a discipline, and the major themes in twentieth-century psychology. On a tour of the history of psychology, the student is introduced to some of the pioneers of psychology as a scientific discipline.

**Student Project/Lecture/Discussion Topic: The Twentieth Century’s Most Eminent Psychologists**

Steven J. Haggbloom and his colleagues have attempted to identify the 100 most eminent psychologists of the twentieth century. Eminence was assessed by scores on three quantitative variables and three qualitative variables. The quantitative variables were journal...
citation frequency, introductory psychology textbook citation frequency, and survey response frequency (an e-mail survey of 1725 members of the American Psychological Society). The qualitative variables were National Academy of Sciences membership, election as American Psychological Association president or receipt of the APA Distinguished Scientific Contribution Award, and surname used as an eponym (i.e., a psychological term such as Pavlovian conditioning or Skinner box) to represent a theory, procedure, test, or apparatus.

The first 25 are listed below.

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<thead>
<tr>
<th>Rank</th>
<th>Name</th>
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<tbody>
<tr>
<td>1</td>
<td>B. F. Skinner</td>
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<td>2</td>
<td>Jean Piaget</td>
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<td>3</td>
<td>Sigmund Freud</td>
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<td>4</td>
<td>Albert Bandura</td>
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<td>5</td>
<td>Leon Festinger</td>
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<td>Carl Rogers</td>
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<td>Stanley Schachter</td>
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<td>Edward Thorndike</td>
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<td>Abraham Maslow</td>
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<td>Gordon Allport</td>
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<td>Erik Erikson</td>
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<td>13</td>
<td>Hans J. Eysenck</td>
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<td>14</td>
<td>William James</td>
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<td>15</td>
<td>David McClelland</td>
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<td>16</td>
<td>Raymond Cattell</td>
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<td>17</td>
<td>John B. Watson</td>
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<td>18</td>
<td>Kurt Lewin</td>
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<td>19</td>
<td>Donald O. Hebb</td>
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<td>20</td>
<td>George A. Miller</td>
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<td>21</td>
<td>Clark L. Hull</td>
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<td>22</td>
<td>Jerome Kagan</td>
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<td>23</td>
<td>Carl Jung</td>
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<td>24</td>
<td>Ivan Pavlov</td>
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<tr>
<td>25</td>
<td>Walter Mischel</td>
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Haggbloom and colleagues suggest a number of interesting student projects that utilize the list. Either individually or in small groups, students could (1) identify the most important contributions of one or more of the psychologists on the list, (2) develop an argument for why a specific psychologist who is not on the most eminent list should be (or vice versa), (3) debate the relative rankings of two psychologists, or (4) prepare a biography of one of the psychologists.

Classroom Exercise: Psychology as Science (PAS) Scale

James Friedrich’s Psychology as Science (PAS) Scale (Handout 1) can be used either before or after students have read the text introduction to psychology. It is designed to measure the degree to which respondents view the discipline of psychology as a science. Total scores are obtained by first reversing the numbers circled for items 8, 9, 10, 14, 17, 19, and 20 (1 = 7, 2 = 6, 3 = 5, 4 = 4, 5 = 3, 6 = 2, 7 = 1) and then adding them with the actual numbers circled for items 3, 4, 6, 7, 12, 13, 16, and 18 (items 1, 2, 5, 11, and 15 are fillers). Scores can range from 15 to 105, with higher scores reflecting a greater inclination to perceive psychology as a science. The scale may be useful in introducing the definition of psychology as a science as well as the specific methodology of the discipline. You may also find it useful to know your students’ perspectives on this critical issue.

Using factor analysis, Friedrich has divided the scale into three subscales. If you choose to use only one rather than the entire scale, note that items 3, 4, 12, and 13 primarily address respondents’ willingness to place psychology in the same conceptual or functional framework as the hard sciences; items 10, 14, 17, 18, and 20 address beliefs regarding the need for psychological research and the value of methodological training; and items 6, 7, 8, 9, 16, and 19 tap views of determinism and belief in the predictability of behavior.

You may want to administer this scale at the beginning of the course and again at the end to see if students’ attitudes about psychology have changed.


Contemporary Psychology

Issues

Classroom Exercise: The Scientific Approach

The text notes that psychology helps us understand why people think, feel, and act as they do. As such, it is both fascinating and useful. However, it is not equipped to answer questions of ultimate meaning.

David Anderson describes a classroom exercise that will effectively demonstrate that science is equipped to answer some questions but not others. Science is not the only way to approach life. To help students understand where science fits into the larger picture, place the following series of statements on the chalkboard before class begins.

1. God is dead.
2. The best things in life are free.
3. Shakespeare’s Richard III is a better play than Romeo and Juliet.
4. Abortion is wrong.
5. There is a genetic predisposition to schizophrenia.
6. The mind is just like a computer.
7. Attitudes affect cancer.
8. Pornography is harmful.
9. $2 + 2 = 4.$

Ask students how they would establish the validity of each statement. To get them thinking, ask them about the courses they have had that might have addressed these issues. Who on the faculty might be interested in these issues, or which department might discuss them? Clearly, there is more than one approach to “truth.” Note that each perspective has its questions and limits. Conclude that the various disciplines and perspectives need not be viewed as competing but as complementary.


**Classroom Exercise: Self-Assessment on Some of Psychology’s Big Issues**

During its history, psychology has wrestled with fundamental issues that will be discussed throughout the text. Human rationality versus irrationality and stability versus change are two of those fundamental questions. For example, are we deserving of the name Homo sapiens—wise humans? In some ways, we are smarter than the most powerful computers. In other ways, we are prone to systematic bias and error. In terms of stability versus change, do our individual traits persist as we age? Do our personalities change in different situations?

Handout 2 can be used to introduce students to the issues of stability versus change, human rationality versus irrationality, and nature versus nurture. In addition, the handout will help students to appreciate that psychological research often attempts to answer questions we all ask about behavior and on which we have at least tentatively formulated a position.

In scoring, emphasize that the test is primarily intended to introduce and stimulate discussion of some of psychology’s important issues, not to provide an accurate self-assessment. At best, the scores are suggestive of a person’s perspective on the issues. Items 1, 4, 7, 10, and 13 represent the “rationality-irrationality” scale; to calculate their total score, students should reverse the numbers before items 4 and 10 (0 = 5, 1 = 4, 2 = 3, 3 = 2, 4 = 1, and 5 = 0) and then add the numbers for all five items. Scores can range from 0 to 25, with higher scores suggesting a stronger belief in rationality. Items 2, 5, 8, 11, and 14 represent the “stability versus change” scale; reverse the number placed before 11, and then add the numbers for all five items. Scores can range from 0 to 25, with higher scores indicating a stronger belief in stability of behavior across time and situation. Items 3, 6, 9, 12, and 15 represent the “nature–nurture” issue; reverse the numbers placed before 6 and 15, and then add all the numbers on the scale. Scores can again range from 0 to 25, with higher scores reflecting a stronger belief in the role of nature.

Students are typically eager to know how they compare with their classmates on these issues. You can form small discussion groups or ask for volunteers to share their positions as well as their rationale with the full class. Collecting the data can provide some rough indication of your students’ initial leaning on issues that will reappear throughout the course.

Yet another alternative, suggested by James Waller, is to have students clarify their own philosophies of psychology by writing their personal position on one or more of the polarities. Review briefly in class these major issues in psychology and then have students write in a couple of paragraphs their own opinion on the issue. The exercise will help them organize and clarify their thoughts and, most important, actively engage them with psychology’s big issues from the beginning.


**Classroom Exercise: Is Human Nature Fixed or Changeable?**

Related to both the issues of nature and nurture and stability and change are questions regarding the fixed versus changeable character of people. Handout 3 is one of the many scales Carol Dweck has used to distinguish between entity and incremental theorists. Entity theorists tend to think traits are fixed, whereas incremental theorists see traits as changeable. To score the scale, students should first reverse the numbers they placed in front of items 3, 5, 7, and 8 (i.e., 1 = 6, 2 = 5, 3 = 4, 4 = 3, 5 = 2, 6 = 1). Then, they should add up the numbers in front of all eight statements to obtain a total score. Scores can range from 8 to 48. Lower scores reflect the belief that traits are fixed (entity theorists); higher scores indicate a belief that traits are changeable (incremental theorists).

In contrast to incremental theorists, entity theorists are more likely to believe that a person’s underlying character and abilities may be revealed by a single behavior or performance. This difference is true for both positive and negative acts. In other words, entity theorists tend to believe that what we see on the outside reflects what people are like on the inside. This applies not only to other individuals and groups but also to themselves. For example, entity theorists experience setbacks in their academic performance as reflecting their lack of ability.
They tend to become defensive and often feel helpless. In contrast, incremental theorists value learning and growth and respond to adversity with increased effort and strategies for change. They tend to be resilient.

Dweck and her colleagues have measured the brain waves of students with these contrasting mindsets. Students took a test composed of very difficult questions. Precisely 1.5 seconds after the students answered a question, the computer indicated whether they responded correctly or incorrectly. And exactly 1.5 seconds after that, the computer gave the right answer. To determine when the students’ attention was most focused, the investigators measured their brains’ electrical activity. Students with an entity or fixed mindset stopped paying attention once they learned if they were right or wrong. Those with an incremental or growth mindset were more focused on learning the real answer.

Dweck and her colleagues have shown how it is possible to change people’s mindsets. Junior high school students with low math scores were given eight sessions of training in study skills. Half the students also received instruction in the malleability of intelligence. They were told that the brain is a muscle that can be strengthened with hard work. Results indicated that in contrast to those not given this instruction, those who learned the malleable mindset rebounded with better grades. Their teachers also reported changes in their motivation. Dweck has now designed a computer software program of this strategy called “Brainology,” which is being tested in 20 New York City schools.

The contrasting mindsets also react differently in relationships. In her book *Mindset: The New Psychology of Success*, Dweck describes how those with fixed and growth mindsets are likely to respond differently to rejection in a love relationship. Those with a fixed mindset feel judged and labeled by the rejection. They see themselves as branded as unlovable and are likely to lash out. The number one goal is revenge. Conversely, those with a growth mindset are more likely to respond to rejection with understanding and forgiveness and a desire to move on. Although deeply hurt by what happened, they want to learn from it. One person with such a growth mindset stated, “That relationship and how it ended really taught me the importance of communicating. I used to think love conquers all, but I now know it needs a lot of help. I also learned something about who’s right for me. I guess every relationship teaches you more about who’s right for you.” Because of their growth mindset, they did not feel permanently branded. They tried to learn something about themselves and relationships that would be useful in having a better experience in the future.

In class, you can relate Dweck’s research to the nature–nurture issue and its practical implications.

From what is presented above, you can also challenge students to demonstrate how her work reflects the biopsychosocial approach. Most notably, Dweck’s work on contrasting mindsets reflects the importance of the cognitive or psychological approach. But clearly, her inclusion of brain scans demonstrates the potential insights that come from a biological approach. Efforts to change mindsets highlight the importance of the social or environmental perspective.


**Perspectives**

*Lecture/Discussion Topic: Illustrating Psychology’s Complementary Perspectives: The Case of Andrea Yates*

Presenting the case of Andrea Yates will not only stimulate students’ interest but will also help you to introduce psychology’s complementary perspectives. Perhaps most important, it will help you demonstrate the complexity and multiple causes of behavior.

On June 20, 2001, after her husband had left for work, Andrea Yates, a Houston mother, drowned her five children in the family bathtub. She told police that she drowned the children to save them from burning in hell. A jury rejected her insanity defense, and she was sentenced to serve life at a psychiatric prison. In January 2005, a Texas Appeals Court overturned her conviction because a psychiatrist for the prosecution had falsely testified that he had consulted for a *Law and Order* episode, which the Texas court stated may have contributed to the jury’s rejection of Yates’ insanity defense. Retried in 2006, Yates again entered a plea of not guilty by reason of insanity, and the second jury acquitted her. Yates was sent to a hospital, not prison. She was committed by the court to a high-security mental health facility where she received medical treatment. In 2007, Yates was moved to a low-security state mental hospital. Under Texas law, she is under the jurisdiction of U.S. District Judge Belinda Hill, who oversaw both trials, for the rest of her life. Yates could be released only if Hill finds that she is mentally competent and no longer a danger to herself or others.

Ask your class, “What do you believe to be the causes of Andrea Yates’ murder of her children?” You are sure to have a lively discussion in which students will provide diverse answers.
Do we find the cause in her private mental functioning (cognitive perspective)? Clearly, Andrea experienced low self-esteem. At the time she killed her children, she believed she was possessed and that the sign of Satan (666) was marked on her scalp. She told the police that her children “weren’t developing correctly” and that drowning them was the only way to save them.

Do we find the cause in her mental disorder or illness that may have a biological basis (neuroscience and behavior genetics perspectives)? Mood disorders run in families and Andrea’s was no exception. A sister and two brothers were also taking antidepressants. Research indicates that brain chemistry plays a role in psychological disorder. The neurotransmitter serotonin appears scarce in depression. Diagnosed as suffering from postpartum depression with psychosis, she had been taken off her antipsychotic medication about a month before the children’s deaths. Andrea’s husband, Russell, claimed he had been pleading with doctors to again prescribe Haldol, used in treating people who hear voices or have delusional thoughts.

Do we find the cause in her social environment (behavioral and social-cultural perspectives)? Why did her doctor take her off her antipsychotic medication? More important, was this really a family affair? Andrea’s in-laws report that her husband was not socially supportive. He claimed he had never changed a diaper. How could he leave her alone with the five children when she could barely care for herself? Why, after doctors had strongly recommended no more children, did he impregnate her a fifth time? And where was her extended family when she needed help so desperately?

Martin Seligman has effectively argued that the individualism of American society (and most other Western societies) plays a critical role in its accelerating rate of depression.

Finally, ask students what important principle this case might reveal. The class is likely to conclude that there are many factors that shape human behavior.

Lecture/Discussion Topic: The Biopsychosocial Approach and Obesity

Research on obesity effectively illustrates both the importance and complementary nature of psychology’s levels of analysis. In class, you might explain how biological, psychological, and social-cultural factors all contribute to understanding what has rapidly become the United States’ number one health threat. The most recent statistics show that 34 percent of Americans are obese, more than the number who are overweight (32.7%). Moreover, it is becoming a global problem. Economist Barry Popkin states, “In a very short time many low- and middle-income countries have attained rates of overweight and obesity greater than or equal to those of the USA and Europe.”

The biology of obesity questions the notion that being overweight is only a matter of a weak will. Evolutionary psychologists observe that getting fat is an evolutionary advantage. Early humans who could best store energy when food was abundant for use in lean times survived to pass down their genes. Psychologist Paul Rozin notes that “we’re hardwired to spend as little energy as possible . . . a general rule that animals follow is to do as little as you can to do what you have to do. They try to get more calories but use up the fewest calories getting them.” Studies of adoptees and twins indicate a genetic influence on body weight. Identical twins have very similar weights even when reared apart. Genetics influences the number and size of fat cells that determine our body weight. Obese people’s “weight thermostats” are set higher; when their weight drops below the set point, their hunger increases and metabolism decreases.

A variety of psychological factors also contribute to obesity. Our eyes rule our bellies, suggests Barbara J. Rolls of Pennsylvania State University, partly because we were told to “clean our plate” when young. Three-year-olds, she reported, tend to stop eating when they are full. However, when she served adults macaroni and cheese on four different days, the larger the portions, the more they ate, despite the fact that they all reported similar levels of satiety. Similarly, she reported, adults ate twice as many M&M’s from a jumbo package than from a small one, as well as more potato chips from a bigger bag than from a smaller one. It is also clear that when people are given more variety, they eat more. Our feelings, too, lead to overeating. For those who are consciously restraining their eating, feeling anxious or depressed can unleash the urge to eat. And once a diet is broken, the person often concludes, “what the heck” and binges.

Finally, social-cultural factors contribute to overeating. Paul Rozin notes that America is a culture of bigness: “When someone comes to your house, the worst thing you can do is not give them enough food. The French would be more concerned about giving them food of high quality.” (Compared with the French, Americans eat more but enjoy it less, usually hurrying through meals. Even in fast-food outlets, the French eat more slowly. Kelly D. Brownell of Yale University labels our current social setting a “toxic environment” of food: “Unhealthy food is highly accessible, it’s convenient, it’s engineered to taste good, it’s heavily promoted, and it’s inexpensive. If you wanted to engineer a good food environment, you’d have the reverse of all that.” Brownell notes that both the politics and economics of agriculture encourage overproduction of food, which then has to be marketed. “You sell the food by sweetening it, by offering it in larger portions, and by promoting it very heavily.”
Clearly, biological, psychological, and social-cultural influences are all important to understanding this major health threat. They supplement one another, with each shedding important light on obesity. The different levels of analysis are not competing but complementary, because “everything is related to everything else.”


Classroom Exercise: Metaphors and Psychology’s Perspectives

As explained in the text discussion on study techniques, active processing of material is key to an “enriched life and an enlarged vision.” Helping students to understand the differences among psychology’s perspectives is best achieved through active processing. One way to have students actively work through the differences among the various theoretical perspectives that shape psychologists’ work is to have them construct metaphors for each perspective. There are a number of different ways to do this. Students can draw pictures representing the metaphors, or write verbal descriptions. They can work individually or in small groups, whichever is most appropriate for your class. To ensure that you get good representation of all the theoretical perspectives you choose to cover, it might be best to assign specific theoretical perspectives to different students or groups. Students should be able to explain which parts or structures of the metaphor represent which aspects of the theoretical perspective. Some examples of perspectives and metaphors are as follows:

**Psychodynamic perspective:** Metaphors include an iceberg, with its different levels of consciousness; a set of forces engaged in a battle or war; or any number of other metaphors in which students represent a dynamic conflict among forces (e.g., conscious and unconscious; id, ego, and superego) that results in the theorized defense mechanisms.

**Behaviorist perspective:** The classic metaphor is to represent the human mind as a “black box.” The opaque color “black” is meant to represent the notion that we cannot peer directly inside the mind to see objects of thought or mental activity (e.g., we cannot look inside a brain and literally “see” a memory with all its vivid details, or a piece of information and its exact form and content). We know that the mind “does” certain things, but its activities and contents cannot be directly observed. Thus, mental activities per se are not open to empirical investigation in the behaviorist perspective. However, what can be observed are the “inputs” to the box (the experiences, stimuli, and so on), as well as its “outputs” (resulting behaviors, overt reactions, words, and so on). Objective empirical observations of the inputs and outputs allow us to draw conclusions about how they are related without having to characterize what is “stored” or “worked on” inside the box itself. There are other metaphors, too, that students can use so long as they involve identifying using opaque objects or locations.

**Cognitive perspective:** Metaphors related to computers are relatively easy to explain (e.g., hardware versus software). Other types of machinery are also appropriate to capture the concepts of information processing (e.g., selection, input, storage, manipulation, use of information).

**Evolutionary perspective:** Competing behavior patterns can be represented as competitors in a race for survival, metaphors that make use of the concept of successful adaptation.

Students can generate the metaphors during class time, or, for more sophisticated analysis, have them complete this exercise as homework. This kind of activity is useful at the beginning of a semester, but it would also make an excellent “capstone” activity at the end of the semester.


Classroom Exercise/Student Project: Applying Psychology’s Specific Theoretical Perspectives

To foster students’ understanding of psychology’s current perspectives, provide them some practice in applying the perspectives to a behavior other than anger. In small groups of, say, four or five students each, have them identify a behavior pattern they find interesting. Randy Larsen and David Buss suggest using personality characteristics such as procrastination, narcissism, and perfectionism, although any behavior pattern that catches the group’s interest will work. Have them prepare seven sentences about the characteristic, one to represent each of psychology’s current perspectives: neuroscience, evolutionary, behavior genetics, psychodynamic, behavioral, cognitive, and social-cultural. Each sentence should make a statement or raise a question about the behavior pattern from a given perspective. Give the groups 15 or 20 minutes for the task, then have them describe their chosen behavior pattern and list their statements for the full class.
Alternatively, or in addition, distribute Handout 4 to each student or to each small group. It provides seven sentences regarding prosocial or helping behavior. Each statement represents one of psychology’s current perspectives. Give students 5 or 10 minutes to link each statement to its appropriate perspective. The correct answers follow: 1. Evolutionary 2. Behavior genetics 3. Neuroscience 4. Psychodynamic 5. Cognitive 6. Social-cultural 7. Behavioral.


Lecture/Discussion Topic: The Allure of the Neuroscience Perspective

Psychological explanations of behavior often seem to attract greater public interest when they include neuroscience information. Moreover, the popular media regularly reports new neuroscience discoveries and new applications of neuroscience findings to our physical and psychological well-being as well as to politics, economics, and the law. Deena Skolnick Weisberg and her colleagues have questioned whether our fascination with the neuroscience perspective may interfere with our ability to critically consider the underlying logic of a psychological explanation. Other lines of research have suggested that people may believe explanations because they find them intuitively satisfying, not because they are accurate. As the text reveals, human intuition is vulnerable to error.

Weisberg’s team of investigators tested their hypothesis by giving naive adults, students in a neuroscience course, and neuroscience experts brief descriptions of behavioral phenomena followed by one of four types of explanations, according to a 2 (good explanation versus bad explanation) × 2 (without neuroscience versus with neuroscience) design. Importantly, the neuroscience information was in all cases irrelevant (as confirmed by the neuroscientists) to the logic of the explanation. Other lines of research have suggested that people may believe explanations because they find them intuitively satisfying, not because they are accurate. As the text reveals, human intuition is vulnerable to error.

For example, the research team described the well-established false consensus effect (the tendency to overestimate the extent to which others share our beliefs and behaviors) as 1 of the 18 behavioral phenomena. More specifically, the researchers cited our tendency to assume that others know what we know, sometimes called the curse of knowledge. They then offered four explanations following the experimental design described previously.

The good explanation (based on careful research) without neuroscience: “Researchers claim that this curse happens because subjects have trouble switching their point of view to consider what someone else might know, mistakenly projecting their own knowledge onto others.”

The bad explanation (circular restatement of the phenomenon and thus not explanatory) without neuroscience: “Researchers claim that this curse happens because subjects have trouble switching their point of view to consider what someone else might know.”


Lecture/Discussion Topic: Complementary Perspectives

The notion that different perspectives are not necessarily contradictory but can in fact complement one another is important and can be further developed in class. A simple illustration suggested by Stephan Evans, a philosopher who has written much on the philosophy of science in psychology, may be helpful.

Have students imagine a poem that has been handwritten with a pen. It is possible to describe the poem in strictly physical terms as a set of ink marks on paper. This description could be made even more basic by providing a chemical analysis of the ink and paper. Such a description could be very useful if someone wished to know whether the poem is likely to fade and become illegible over the years. A third level of description would be to view the poem as a collection of letters of the English alphabet. A fourth would be to view the poem as a collection of English words. Finally, someone might describe the poem as a literary creation.

In analyzing these different descriptions, should we ask, “Which one is true?” Of course not. While they state very different things, they are complementary. Each account is accurate and potentially useful. They are simply different ways of looking at the same event.

Similarly, the different perspectives in psychology are not necessarily contradictory. They are often different ways of looking at the same behavior. The various academic disciplines, too, offer complementary perspectives on human experience. Which one is most rele-
vant depends on your major interest. For example, love is described in innumerable ways. A physiologist might describe love as a state of arousal. A psychologist might examine how the emotion of love is influenced by such factors as belief similarity or physical attractiveness. A poet might extol the sublime experience that love can sometimes be. A theologian might describe love as the goal, the God-given epitome of human relationships. Successful explanations of human functioning at one level need not invalidate explanations at other levels.


Lecture/Discussion Topic: Human Freedom and Choice

Does the biopsychosocial approach that incorporates the three main levels of analysis allow for human freedom and choice? Or, are we totally shaped by our biology and past and present environment?

Clearly, the belief that we cannot affect our own behavior can produce disastrous results. Psychologist Janice Hastrup cites the intriguing case of Mickey Mantle, star centerfielder for the New York Yankees, whose belief in genetic determinism probably cost him years. Mantle’s father died at age 40 from Hodgkin’s disease; several uncles also died before age 40. According to Hastrup, Mantle started thinking, “I probably am going to die young, so I might as well enjoy myself.” A 46-year-old Mantle lamented, “If I knew I was going to live this long I would have taken better care of myself.” A person with an alcohol dependency whose hedonistic behavior caused irreparable liver damage, the Hall-of-Famer died in 1995 at the relatively young age of 63. Hastrup suggests that it was Mantle’s belief and not necessarily any genetic predisposition that caused his early demise. Today, about one-third of the population shares Mantle’s narrow outlook regarding family history of disease. It is sometimes called “one-factor health reasoning.”

Morton Hunt suggests that mainstream modern psychology that includes terms such as purposive behavior, intentionality, decision making, self-control, choices, and self-efficacy leaves room for a psychology of will. Social cognitive theorist Albert Bandura proposes a psychology of agency in which he argues that we act as agents who intentionally regulate our own behavior and life circumstances. In a 2004 address to the American Psychological Society, he stated that humans are “producers of their life circumstances not just products of them.” For example, he notes that research on brain development underscores the influential role that agentic action plays in shaping the function and structure of the brain. He states, “It is not mere exposure to stimulation but agentic action in exploring, manipulating, and influencing the environment that counts. By regulating their motivation and activities, people produce the experiences that form the functional neurobiological substrate of symbolic, social, psychomotor, and other skills.”

Bandura identifies four key properties of human agency. The first is intentionality. Human intentions include action plans and strategies for carrying them out to reach a goal. A second property of agency is forethought, which involves the temporal extension of agency. Through cognitive representation, visualized futures are brought into the present to guide and motivate our behavior. Self-reactiveness is a third agentic property. Not only do we have the capacity to make choices and action plans, we also have the ability to execute them, that is, to link our thoughts with actions. The fourth property of agency, argues Bandura, is self-reflectiveness. We are self-examiners of our own functioning. We reflect on our personal efficacy, the soundness of our thoughts and actions, and the meaning of our pursuits. We make adjustments, if necessary.

Bandura also argues that people do not simply react to changes in evolution. Rather, “they are prime movers in the coevolution process . . . the uniqueness of humans resides in these self-directing and self-transforming capacities.” As agents of their own development, people have “devised ways of adapting flexibly to remarkably diverse geographic, climatic, and social environments.” Many psychologists would agree. We are both creators and creatures of our personal and social worlds.


Lecture/Discussion Topic: Social Cognitive Neuroscience

The emergence of the interdisciplinary field of social cognitive neuroscience demonstrates not only the complementary nature of psychology’s perspectives but also how some scientists are trying to integrate them. As Kevin Ochsner and Matthew Lieberman report, the first meeting devoted to social cognitive neuroscience, held in April 2001, was attended by social psychologists and cognitive neuroscientists as well as clinical psychologists, sociologists, anthropologists, economists, and political scientists.

Social cognitive neuroscience attempts to understand phenomena in terms of interactions among three levels of analysis: the social level, which deals with the social and environmental factors that influence behavior and experience; the cognitive level, which is concerned with the information-processing mechanisms that give rise to social-level phenomena; and the neural level,
which is concerned with the brain mechanisms that underlie cognitive-level processes. The social cognitive neuroscience approach involves conducting studies and constructing theories that make reference to all three levels. One of the field’s important assumptions is that the different questions asked at varying levels of analysis are not independent or mutually exclusive but can serve to enrich one another.

Studies of stereotyping demonstrate this approach. Stereotypes involve categorical judgments about a social group. They influence people’s beliefs and expectations about group members which in turn bias person perception processes. For example, if a White man possesses negative stereotypes toward Blacks, he is likely to automatically perceive ambiguous signals from a Black man as being more dangerous, less friendly, or less competent. Neuroimaging can provide important insights into the processes by which stereotyping occurs by revealing whether the same brain regions are involved in the affective, cognitive, and behavioral components of stereotyping. There may be as many kinds of stereotypes as there are kinds of knowledge systems in the brain.

In one of the first studies of stereotyping and the brain, researchers examined how perception of out-group members differs from perception of in-group members. The study used functional magnetic resonance imaging to compare amygdala activation in both White and Black participants exposed to unfamiliar White and Black faces. In the first block of trials, participants judged the gender of each face. The researchers found amygdala activation to both in-group and out-group faces among both White and Black participants. In the second block of trials, however, the amygdala response to in-group faces habituated, whereas the response to out-group faces did not. One interpretation is that unfamiliar faces, whatever their group relation, are ambiguous and potentially threatening when first seen. Presumably, this threat response to in-group faces habituates because of extensive prior experience with members of the in-group.

In an extension of this study, researchers found a significant correlation between amygdala activity in response to Black faces and the amount of implicit anti-Black racial bias shown on a reaction time measure administered a few days before. However, this correlation was not found for famous and therefore familiar Black faces such as that of Michael Jordan. This result fits the claim that Whites automatically perceive unfamiliar Black faces as potentially threatening and fear-relevant. Consistent with this notion was the finding that amygdala activation to famous Black faces did not correlate with an explicit measure of racial prejudice.


**Subfields**

**Student Project: Interviewing a Psychologist**

The Appendix in these resources includes a project for students to learn more about psychology’s subfields by interviewing your colleagues. If you want to use it now, see the Appendix in these resources.

**Classroom Exercise: Psychologist as Scientist**

Many students view psychologists as strictly mental health professionals. While they know that at least a few teach (after all, you’re there), most will be unaware of the large percentage who conduct research. Gene Smith suggests a simple exercise to highlight this clinical bias. Simply ask students to write on a piece of paper five adjectives that describe a typical scientist. Next, ask them to write down five adjectives that describe a typical psychologist.

When students are invited to present their adjectives to the class, it will be obvious that they perceive “psychologist” and “scientist” very differently. Smith reports that among the words students used to describe “psychologist” were accepting, caring, genuine, personable, and attentive. Among the words used to describe “scientist” were methodical, analytical, resourceful, intelligent, and thorough. The exercise awakens students to their misconception of what a psychologist is and provides you with the opportunity to introduce psychology as the science of behavior and mental processes.

Buddy Grah suggests an alternative for introducing psychology as a science. Distribute to each student a piece of paper on which you have drawn a straight horizontal line and written “Physics and Chemistry” at one endpoint and “Art and Philosophy” at the other. Suggest that the line represents a continuum along which the various disciplines can be placed and that each student should place psychology on the continuum. You can obtain a class judgment by drawing a line on the chalkboard; then, starting at one end, have students raise their hands when you reach the point where they have placed psychology. Stop at the point where approximately half the class raises their hands and mark that location. Grah reports that his students tend to place psychology closer to art and philosophy than to physics and chemistry. Ask students why they have placed it where they have.


**Classroom Exercise/Critical Thinking Break: Personalizing Psychology in Current Events**

The world is our classroom! In today’s “wired world,” we learn about every current event as it happens from the news media, social media, and from each other. Why not personalize your students’ interactions with psychology by using current events to highlight the role that our discipline can play in understanding the causes, implications, and solutions to these events?

Begin by having your class generate a list of current events. These can be local, national, or global events. Write them on the board. Then, divide your class into small groups and assign each group one of the events on the list (it is best to assign the events randomly, and to assign each group a different event). Instruct your students to imagine that they are psychologists, and give each group about 15 minutes to answer the following questions.

1. What theoretical perspectives in psychology are relevant to this current event?
2. Identify (name and define) at least five variables that psychologists would deem important or necessary to study in order to understand the current event scientifically and more fully?
3. How could you bring psychological issues related to this current event into the laboratory to study them in a more controlled environment? Give at least one example.

If you have time, randomly select one or two groups to share their responses with the rest of the class. You may want to follow this classroom activity with a homework assignment in which students work individually through the above questions about a different current event of their choice.

**Lecture/Discussion Topic: Psychology’s Important Role in Basic Scientific Research**

What is psychology’s role in answering important scientific questions? To illustrate both the broad range of psychology and its centrality as a scientific discipline, use the *New York Times* twenty-fifth anniversary celebration of its weekly section “Science Times.” When the *Times* listed “25 of the most provocative questions facing science” on November 10, 2003, psychologist Donald McBurney astutely noted that at least 9 of the 25 questions are issues on which psychology has something important to say. These include the following:

- How smart are animals?
- Can drugs make us smart?
- Does the paranormal exist?

**Lecture/Discussion Topic: Psychology’s Applied Research**

To illustrate psychology’s relevance for our everyday lives, take examples from www.PsychologyMatters.org, a web-based compendium of research that demonstrates the important role of psychological science in addressing societal and human needs. Some of these issues will be discussed in more detail later in the text, but mentioning them now will give students a preview of how psychology applies to real life.

1. Suicide is a leading cause of death for young people ages 15 to 24. Psychological research indicates that psychological, environmental, and social factors contribute to suicide risk. Warning signs include talking about dying; recent loss (through death, divorce, separation); changes in sleep patterns, eating habits, and the capacity to concentrate; fear of losing control; and no hope for the future. Programs that have proven helpful in preventing suicide include The Teen Screen Program and Stop a Suicide Today!

   The Teen Screen Program identifies youth who are suffering from psychological disorders, especially depression. Parents are notified of their children’s problems and given help in connecting them to local mental health services. There, the children can obtain further evaluation and intervention before falling behind in school and ending up in serious trouble, or worst of all, ending their lives.

   Stop a Suicide Today! is a school-based prevention program with documented success in reducing suicide attempts. The program teaches participants to recognize the signs of suicide in family members, friends, and co-workers and empowers them to make a difference in the lives of their loved ones. The program teaches the relationship between psychological disorder and suicide and supports participants in getting those who they recognize to be in need into psychotherapy.


2. Psychologists have shown how the pursuit of material wealth and the pursuit of happiness are not the same. Psychologists Edward Diener and David Myers have clearly documented that once individuals have enough money to pay for their basic needs
of food, shelter, etc., money does relatively little to improve happiness. Psychologist Tim Kasser has shown that people who buy into the messages of consumer culture actually report lower personal well-being. He found that individuals who say that money, image, and popularity are relatively important to them report less satisfaction in life as well as more depression and anxiety. A movement known as Voluntary Simplicity aims to help people live outside the consumer mainstream. Many in this movement try to maximize their “time affluence” rather than their material affluence, because they recognize that increased free time will bring them a greater sense of well-being.


3. Researchers are discovering the types of messages that shape pro-environment behaviors. Robert Cialdini and two graduate students worked with a local hotel on a program to encourage lodgers to reuse bath towels. They tried the following messages: Help the hotel save energy; Help save the environment; Partner with us to help save the environment; Help save resources for future generations; and, Join your fellow citizens in helping to save the environment.

The last message, which described a social norm, was the most successful: 41 percent of guests who got that message recycled their towels. The least successful message was the one that emphasized the benefit to the hotel (Help the hotel save energy): Only 20 percent of the guests reused their towels. The findings are consistent with social psychological theory suggesting that people in a new situation take their cues from others. Descriptive norms that say, “Everybody’s doing it!” seem to promote conservation-minded behaviors.

In related research on situations requiring people not to do something, investigators have found that injunctive-proscriptive messages (Don’t go off the trail or Don’t take the petrified wood) may be the most effective, direct route to gaining compliance. Still other research finds that the typical “save the planet” awareness campaigns are ineffective due to their lack of specificity. Specific messages are much more likely than abstract messages to shape behavior.


4. Writing about difficult, even traumatic, experiences appears to be good for health. In one study, 50 healthy undergraduates were assigned to write about either traumatic experiences or superficial topics for four days in a row. Six weeks after the writing sessions, students in the trauma group reported more positive moods and fewer illnesses than those writing about everyday experiences. In another study, researchers assigned patients with asthma and rheumatoid arthritis either to write about the most stressful events of their lives or to write about a neutral topic. Four months later, asthma patients in the experimental group showed improved lung function; arthritis patients in the experimental group showed a reduction in disease severity. Writing seems to be one important way for people to resist the mental and physical ravages of stress and disease. Therapists increasingly encourage patients to undertake writing exercises outside the clinical setting.


5. Psychological research indicates that violent video games can increase children’s aggression. Studies indicate that it is likely that violent video games may have even stronger effects on children’s aggression than television or movies because (1) the games are highly engaging and interactive, (2) the games reward violent behavior, and (3) children repeat these behaviors over and over as they play. Researchers have shown that playing a lot of violent video games is related to having more aggressive thoughts, feelings, and behaviors. When parents limit the amount of time as well as the types of games their children play, children are less likely to show aggressive behaviors. Some researchers have created school curricula to help teach children to reduce their total amount of screen time and/or the types of programs and games watched/played.


6. Most psychologists agree that polygraph tests cannot accurately detect lies. Indeed, research cannot find any pattern of physiological reactions that is unique to deception. An honest person may be nervous when answering truthfully and a dishonest person may be calm. A particular problem is that polygraph research has not separated placebo-like effects (the individual’s belief in the efficacy of the procedure) from the actual relationship between deception and a person’s physiological responses. One reason that polygraph tests may appear to be accurate is that people who believe the test works may confess or become very anxious when questioned. If this view is correct, the lie detector might be better called a “fear” detector. Courts, including the U.S. Supreme Court, have repeatedly rejected the use of polygraph evidence because of its inherent unreliability. Nevertheless, polygraph testing continues to be used in nonjudicial settings, often to screen personnel, but sometimes to try to assess the veracity of suspects and witnesses, and to monitor criminal offenders on probation.


Classroom Exercise/Lecture Break: Categorizing Professions in Psychology

Many students find it difficult to distinguish among psychology’s subfields, perspectives, and professions. They come into our courses thinking about professions and career choices (trying to answer the question of “What do I want to be when I grow up?”), but they do not always see the connection between the professions and the theoretical perspectives and psychological subfields that inform those professions. This exercise allows them to begin to disentangle these categories.

For this activity, begin by having students generate a list of all the professions they can think of that make use of psychology in some way. For each profession your students identify, have them explain how or why it is related to psychology. They can do this individually or as part of a small group, whichever works best for your class configuration. When students have created their lists, refer them to the Venn diagram on the next page. Have students generate a definition for each area in the diagram. Then have them place each profession on their list in one of the areas in the diagram. They should be prepared to defend their placement of the professions, that is, to have a good reason why they have placed each profession where it is.

You can make this activity more challenging by modifying the Venn diagram to include information about the different subdisciplines within psychology. One way to do this is to color-code the professions to indicate which theoretical perspectives or psychological subfields dominate the work in each profession (e.g., by changing the font colors, highlighting or underlining the professions in different colors, or using icons next to the professions). You can then discuss the similarities and differences in the number and type of subfields represented under each profession in the diagram. If you would prefer to do this in a matrix rather than a Venn diagram, you can easily do so.

You can make this an ongoing project that lasts the entire term. If you use concept mapping or wiki tools available through classroom management systems (e.g., Blackboard, Angel, eCollege) or on free websites, you can even chart the evolution of this document over time.

Study Tips

Classroom Exercise: Eliciting “Metaphors” for Learning and Teaching

To set the tone for active learning and critical thinking in the course, you might use a simple classroom exercise suggested by Carole Wade. Begin by asking students why they are in college or university instead of in the workplace or even at home watching TV. Precisely what do they hope to gain, aside from the ultimate goal of earning a degree? Explain to your class that they will have the opportunity to explore their ideas about learning by writing similes or providing an analogy. (You may need to explain that a simile is a figure of speech in which a concept is applied to something else to suggest a fundamental similarity, such as “My love is like a red, red rose.”) Have students write on a piece of paper a way to complete the phrase, “Learning is like . . .” or “A learner is like . . . .” After a few minutes, have them do the same thing for “teaching” and “teacher.” (Note that Carole Wade, in her presentation, refers to these as metaphors, but, in fact, they are similes.)

To ensure anonymity, collect, shuffle, and redistribute the responses. Ask for volunteers to read the similes on their sheet and then use them as the basis for classroom discussion. What do the answers suggest about students’ concepts of learning and teaching? Are they active or passive? Do not be too harsh with similes suggesting that learning is passive (for example, “A learner is like a sponge”), but do emphasize that active processing is necessary to master any subject. To borrow the David Myer’s simile: “Your mind is not like
your stomach, something to be filled passively; it is more like a muscle, which grows stronger with exercise.” Conclude by noting that teachers are also learners and that learners can also be teachers.

HANDOUT 1

Listed below are a number of statements. Each represents an opinion regarding some aspect of psychology. You will probably agree with some of these statements and disagree with others; there are no correct or incorrect answers. Read each statement carefully and indicate the extent to which you agree or disagree by circling the appropriate number below each statement. For example:

Psychology should be a required course for college students.

1 2 3 4 5 6 7
strongly disagree strongly agree

If you disagreed slightly with the above statement, you would circle the number 3. If you agreed strongly with the statement, you would circle the number 7. Be sure to give your opinion on every statement.

1. A psychology course is an important part of any person’s college education.
1 2 3 4 5 6 7
strongly disagree strongly agree

2. The different areas within psychology seem very unrelated to each other.
1 2 3 4 5 6 7
strongly disagree strongly agree

3. An undergraduate degree in psychology should be a Bachelor of Science rather than a Bachelor of Arts degree.
1 2 3 4 5 6 7
strongly disagree strongly agree

4. It’s just as important for psychology students to do experiments as it is for students in chemistry and biology.
1 2 3 4 5 6 7
strongly disagree strongly agree

5. An introductory psychology course should cover as broad a range of topics as possible.
1 2 3 4 5 6 7
strongly disagree strongly agree

6. Research conducted in controlled laboratory settings is essential for understanding everyday behavior.
1 2 3 4 5 6 7
strongly disagree strongly agree

7. Even though each person is unique, it is possible for science to find general laws explaining human behavior.
1 2 3 4 5 6 7
strongly disagree strongly agree

8. Carefully controlled research is not likely to be useful in solving psychological problems.
1 2 3 4 5 6 7
strongly disagree strongly agree

9. Our ability as humans to behave in any way we choose makes our attempts to predict behavior ineffective.
1 2 3 4 5 6 7
strongly disagree strongly agree

10. Psychological advice given in popular books and magazines is often as useful as more research-based claims.
1 2 3 4 5 6 7
strongly disagree strongly agree
HANDOUT 1 (continued)

11. Studying specific examples of how psychology is used is the most interesting part of a psychology course.
   
   1 2 3 4 5 6 7
   strongly disagree strongly agree

12. Government funding of experimentation is as necessary for expanding what we know about psychology as it is
   for gaining knowledge in areas like chemistry and physics.
   
   1 2 3 4 5 6 7
   strongly disagree strongly agree

13. The study of psychology should be seen primarily as a science.
   
   1 2 3 4 5 6 7
   strongly disagree strongly agree

14. Courses in psychology place too much emphasis on research and experimentation.
   
   1 2 3 4 5 6 7
   strongly disagree strongly agree

15. Psychology courses should spend time covering various job possibilities for people with psychology degrees.
   
   1 2 3 4 5 6 7
   strongly disagree strongly agree

16. Psychological research can enable us to anticipate people’s behavior with a high degree of accuracy.
   
   1 2 3 4 5 6 7
   strongly disagree strongly agree

17. Psychologists working as counseling professionals don’t need to be so concerned with research findings.
   
   1 2 3 4 5 6 7
   strongly disagree strongly agree

18. Psychological theories presented in the media should not be trusted unless they are supported by experiments.
   
   1 2 3 4 5 6 7
   strongly disagree strongly agree

19. Psychology will never be a true science because its predictions of individual behavior are seldom exact or
certain.
   
   1 2 3 4 5 6 7
   strongly disagree strongly agree

20. Students get little benefit from learning about procedures for conducting psychology experiments.
   
   1 2 3 4 5 6 7
   strongly disagree strongly agree

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Each of the following statements represents a commonly held opinion. You will probably agree with some and disagree with others. Read each statement carefully; then, using the scale below, please indicate the extent to which you agree or disagree with the statements by writing the number that corresponds to your opinion in the space next to each statement.

0 = disagree strongly
1 = disagree somewhat
2 = disagree slightly
3 = agree slightly
4 = agree somewhat
5 = agree strongly

1. Most people have an accurate understanding of the reasons for their own behavior.
2. Most people are consistent from situation to situation in the way they react to things.
3. Heredity plays the major role in determining IQ.
4. Great accomplishments in life, like those of great authors and painters, are usually motivated by unconscious forces.
5. A person who was shy as a child will also tend to be shy as an adult.
6. Differences in male and female behavior are more the result of socialization than biology.
7. People typically have a good sense of their own strengths and weaknesses.
8. People’s values and attitudes remain pretty much the same throughout their lives.
9. Psychological disorders are primarily the result of biological factors, such as brain abnormality or genetic predisposition.
10. Most people have an inaccurate self-concept, tending to see themselves either too favorably or too unfavorably.
11. Knowing that a person behaved honestly in one situation tells you little about whether he or she will behave honestly in a different situation.
12. Aggression is part of human nature and thus will always be part of social life.
13. Most people make major life decisions logically and rationally.
14. A troubled adolescent is likely to be a troubled adult.
15. The basic causes of people’s behavior can be traced to their past experiences.
HANDOUT 3

Using the scale below, please indicate the extent to which you agree or disagree with each of the following statements by writing the number that corresponds to your opinion in the space next to each statement.

\[\begin{align*}
1 &= \text{strongly agree} \\
2 &= \text{agree} \\
3 &= \text{mostly agree} \\
4 &= \text{mostly disagree} \\
5 &= \text{disagree} \\
6 &= \text{strongly disagree}
\end{align*}\]

1. The kind of person someone is, is something very basic and can’t be changed very much.
2. People can do things differently, but the important parts of who they are can’t really be changed.
3. Everyone, no matter who the person is, can significantly change his or her basic characteristics.
4. As much as I hate to admit it, you can’t teach an old dog new tricks. People can’t really change their deepest attributes.
5. People can substantially change who they are.
6. Everyone is a certain kind of person, and there is not much that can be done to really change that.
7. No matter what kind of person someone is, he or she can always change significantly.
8. All people can change their most basic qualities.

HANDOUT 4

Link each of the statements regarding prosocial, or helping, behavior to the appropriate psychological perspective.

_________________________ 1. By helping one another, we are more likely to survive and reproduce.

_________________________ 2. Identical twins who are separated at birth and raised in very different environments show the same degree of helpfulness toward others.

_________________________ 3. A specific brain region underlies our experience of empathy for persons in distress.

_________________________ 4. Unconscious sexual motivation prompts our willingness to help others.

_________________________ 5. We are most likely to help those we perceive as similar to ourselves and whom we believe deserve our assistance.

_________________________ 6. The willingness of people to help varies greatly across the world’s societies.

_________________________ 7. Children who have been rewarded for helpful behavior are more likely to be helpful in future interpersonal interactions.