

Psychology: Essentials

UPDATED SECOND EDITION

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Critical Controversy

Is Hypnosis a Window to Forgotten Events?

In 1977, two nurses were accused of poisoning nine patients at a Veterans Administration Hospital in Ann Arbor, Michigan. Two of the patients died. At first, no clear evidence was found to link the nurses to the crime. In an attempt to prove their case, FBI agents hypnotized the surviving victims and several staff members. Under hypnosis, one victim gradually began to remember the presence of one of the two nurses in his room. Were the memories of this witness accurate? How do we know whether events recalled under hypnosis actually happened as people recall them? Although this critical testimony resulted in a conviction, a judge ordered a new trial and the prosecution chose to not retry the case (Lofus, 1979).

Hypnosis is sometimes used to enhance people's ability to recall forgotten events (Barrat, Bryant, & Britco, 2001; Nash, 2001; Stafford & Lynn, 2002). Police departments use hypnosis occasionally to help eyewitnesses remember forgotten crime scene details. In 1976, for example, a school bus carrying 26 schoolchildren from Chowchilla, California, disappeared. It turns out that three armed men kidnapped the bus driver and the children and buried them alive in a trailer in a gravel quarry some distance away. After 16 hours underground, they were rescued. When the school bus driver was hypnotized, he recalled all but one digit of the license plate on the kidnapper's vehicle. This memory proved critical in tracking down the suspects (Lofus, 1979).

Therapists sometimes use hypnosis to age-regress patients back to an earlier stage in life in order to help them work through long-forgotten painful experiences. However, research suggests that improvements in memory due to hypnosis may often be more apparent than real. In one study, participants watched a videotape of a mock armed robbery and then were asked to recall specific crime details six times: twice immediately after seeing the videotape, twice 1 week after seeing the videotape, once during hypnosis, and once after hypnosis (Klein, Lanyon, & Perry, 1991). Highly hypnotizable participants remembered more specific crime details under hypnosis than they did just before hypnosis; less hypnotizable participants did not. At the same time, however, high-hypnotizability participants misremembered more false crime details than did low-hypnotizability participants. In other words, when people are hypnotized, they may remember more correct and more incorrect information. One researcher has concluded that hypnosis may make participants more confident about what they remember, but not necessarily more accurate (Perry, 1991).

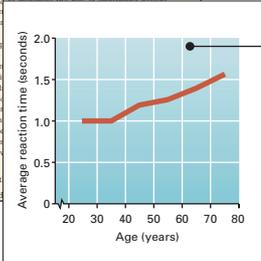
of the bus driver's hypnotic recall. In the Ann Arbor case, with no corroborating evidence, it was impossible to confirm or disconfirm the accuracy of the victim's recovered memory.

This uncertainty about the accuracy of memories recalled under hypnosis is magnified by the tendency of hypnotized participants to be influenced by leading questions. For example, after viewing a photo, hypnotized individuals might be asked, "What color was that person's mustache?" The individuals then often create an image of the person they saw and supply the person with a mustache, even though the photo did not show a mustache. Later they might recall, with confidence, the person as having a mustache. A number of studies have shown that hypnotized witnesses are more confident about the inaccurate aspects of their recall or about misidentifications than are non-hypnotized witnesses (Orne, 1959). In a court of law, hypnotized witnesses have so much confidence in their pseudo-memories—false memories that are believed to be real—that they are effectively immune from cross-examination (Orne, 1959). Jane Pyman (1999) has proposed that increased confidence in memories recovered under hypnosis is due to an illusion of familiarity that hypnosis helps to produce.

Because of its questionable reliability, hypnotic testimony is banned in some states. If hypnotic testimony is allowed in court, extreme caution must be exercised to obtain corroborating evidence and to ensure that the witness is not suggesting memories when using hypnosis. Similar to using hypnosis, accidentally implying information to a witness (Green, Lynn, & Sperry, 1991). There is not hypnosis eye-witness recall. Also sometimes non-hypnotic in non-hypnotic in the same problem accuracy of recall.

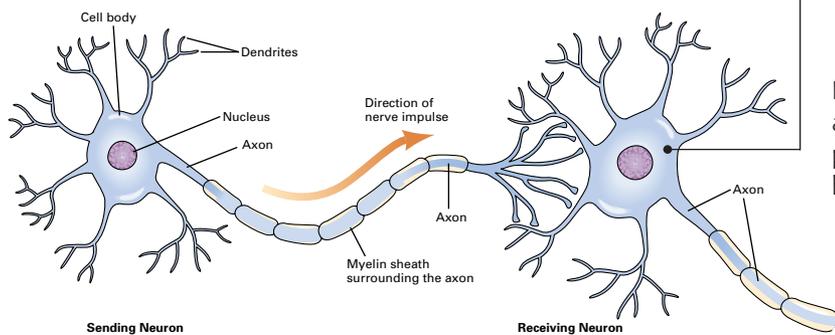
Research

Critical Controversy boxes in each chapter highlight current debates in psychology and pose thought-provoking questions to encourage students to examine the evidence on both sides of an issue.



Clearly labeled graphs and explanatory captions help students become familiar with visual data presentation.

Expanded and updated coverage of neuroscience and evolutionary psychology reflects psychology's increasing emphasis on the biological bases of behavior.



New coverage of gender and cross-cultural research, as well as positive psychology and evolutionary psychology, is indexed inside the back cover of the book.

Are You Depressed?

Following is a list of the ways that you might have felt or behaved in the past week. Indicate what you felt by putting an X in the appropriate box for each item.

	Rarely or Never in the Past Week (1 Day)	Sometimes (2-3 Days)	Often (4-5 Days)	Most or All of the Time (6-7 Days)
1. I was bothered by things that usually don't bother me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. I did not feel like eating; my appetite was poor.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I felt that I could not shake off the blues even with help from my family and friends.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I felt that I was just as good as other people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I had trouble keeping my mind on what I was doing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I felt depressed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. I felt that everything I did was an effort.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. I felt hopeful about the future.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. I talked less than usual.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. I felt lonely.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. People were unfriendly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. I was happy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. I talked less than usual.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. I felt lonely.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. People were unfriendly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. I enjoyed life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. I had crying spells.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. I felt sad.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. I felt that people disliked me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. I could not get going.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

For items 4, 8, 12, and 16, give yourself a 3 each time you checked Rarely or None, 2 each time you checked Some or a Little, 1 each time you checked Occasionally or Moderate, and 0 each time you checked Most or All of the Time, 20 items.

If your score is around 7, the male in terms of how much depressed in the past week. If your score is similar to the average female's. Scores of 16 or more and you are both depressed from professional help. Keep in mind, that's not a diagnosis.

Applications

In each chapter of the text, a **Psychology and Life** feature invites students to apply what they've learned to daily life.

Psychology and Life

In 1950, the newly born Steveland Morris was placed in an incubator in which he was given too much oxygen. The result was permanent blindness. In 1962, 12-year-old singer and musician Stevie Wonder began a performing and recording career that has included such hits as "My Cherie Amour" and "Signed, Sealed, Delivered." At the beginning of the twenty-first century, his music is still perceived by many as "wondrous."

At age 12, Andrea Bocelli lost his sight in a soccer mishap. Now in his 40s, after a career as a lawyer, Andrea has taken the music world by storm with his magnificent, classically trained voice.

An individual lacking either vision or hearing has great difficulty doing all the things that a hearing, sighted person can do, yet people who lose one channel of sensation—such as vision—often adapt and compensate for the loss by enhancing their sensory skills in another area—such as hearing or touch. For example, researchers have found that blind individuals are more accurate at locating a sound source and have greater sensitivity to touch than sighted individuals (Lesand & others, 1998; Levanen & Hamdorf, 2001). Other studies indicate that the auditory cortex of deaf individuals becomes more responsive to touch than does this area of the brain in normal, hearing individuals (Levanen & others, 1998). These changes

illustrate an important point made in chapter 2: how *adapt* the brain is.

In this chapter, I explore the way our senses work. A general introduction to basic concepts of sensation and perception leads to a detailed discussion of vision, the sense that scientists know the most about. Then I examine hearing, the skin senses, taste and smell, and the senses related to movement. Throughout, I will explain how the information taken in through our senses is processed in the brain and thus affects behavior.

Two "sensations"—Stevie Wonder and Andrea Bocelli—have adapted to life without sight.

1 HOW WE SENSE AND PERCEIVE THE WORLD

The Purpose of Sensation and Perception

Thresholds

Attention and Predisposition

Sensory Receptors

Introductory vignettes relate to each chapter's application of psychology with real-life examples.

Stay Focused and Learn!

Students need help finding the key ideas in introductory psychology. Santrock's unique **learning system** keeps students **focused** on these ideas so they learn and remember fundamental psychological concepts.

Chapter Outline and Learning Goals

Learning Goals are linked directly to the primary section headings in the text and supplementary resources to underscore key ideas.

Section Maps and Chapter Summary Map

Primary and secondary headings presented graphically provide a quick visual overview of the important topics covered in the chapter.

Learning Goal

At the beginning of each primary section, that section's learning goal reappears in the form of a question.

Chapter Outline	Learning Goals
THE NATURE OF LEARNING Types of Learning Biological Factors in Learning	1 Explain what learning is.
CLASSICAL CONDITIONING Pavlov's Studies Applications of Classical Conditioning	2 Describe classical conditioning.
OPERANT CONDITIONING Thorndike's Law of Effect Reinforcement Punishment Shaping Observational Learning	3 Discuss operant conditioning. 4 Understand observational learning. 5 Outline the role of cognition in learning.

Reach Your Learning Goals

The chapter summary restates the Learning Goals and provides a bulleted review that matches up in a one-to-one fashion with the bulleted review statements in the section reviews.

Review and Sharpen Your Thinking

Learning Goals frame the section reviews, which end with an exercise designed to hone critical thinking skills.

Connections

References to review quizzes, crossword puzzles, and additional resources remind students of the text-specific materials available for content review and enrichment.

1 Explain what learning is.

Learning is a relatively permanent change in behavior that occurs through experience. Observational learning is learning by watching what other people do. In associative learning, a connection is made between two events. Conditioning is the process by which associative learning occurs. In classical conditioning, organisms learn the association between two stimuli and, in operant conditioning, they learn the association between a behavior and a consequence. In most instances, operant conditioning is better at explaining voluntary behavior than classical conditioning.

2 Describe classical conditioning.

Classical conditioning occurs when a neutral stimulus becomes associated with a meaningful stimulus and evokes a similar response. Pavlov discovered that animals can learn the association between an unconditioned stimulus (UCS) and a conditioned stimulus (CS). The UCS automatically produces the unconditioned response (UCR). After conditioning, the CS predicts the UCS and elicits the conditioned response (CR). Shaping is the process of rewarding approximate or desired behavior in order to achieve the learning process. Principles of reinforcement include the distinction between positive reinforcement (the frequency of a behavior increases because it is followed by the removal of an aversive, or unpleasant, stimulus). Positive reinforcement can be classified as primary reinforcement using reinforcers that are innately satisfying and secondary reinforcement (using reinforcers that acquire positive value through experience). Reinforcement can also be continuous if a behavior is reinforced every time or partial if behavior is reinforced only a portion of the time. Schedules of reinforcement—fixed ratio, variable ratio, fixed interval, and variable interval—are schedules that determine when a behavior will be reinforced.

3 Discuss operant conditioning.

Operant conditioning is a form of learning in which the consequences of behavior produce changes in the probability of the behavior's occurrence. B. F. Skinner described the behavior of the organism as operant. The behavior operates on the environment, and the environment in turn operates on the organism. In operant conditioning, organisms learn the association between an organism's response to the environment, the organism's action influence on the environment, and the consequences of that action. Operant conditioning is better at explaining voluntary behavior than classical conditioning.

4 Understand observational learning.

Observational learning is learning by watching what other people do. In associative learning, a connection is made between two events. Conditioning is the process by which associative learning occurs. In classical conditioning, organisms learn the association between two stimuli and, in operant conditioning, they learn the association between a behavior and a consequence. In most instances, operant conditioning is better at explaining voluntary behavior than classical conditioning.

5 Outline the role of cognition in learning.

Biological constraints affect what an organism can learn from experience. These factors include instinctive drift (the tendency of animals to revert to instinctive behavior that interferes with learned behavior), preparedness (the species-specific biological predisposition to learn to associate with but not to others), and taste aversion (the biological predisposition to learn to avoid foods that have caused sickness in the past).

Review and Sharpen Your Thinking

1 Describe classical conditioning.

- Summarize the classical conditioning process—including unconditioned stimulus (UCS), conditioned stimulus (CS), unconditioned response (UCR), and conditioned response (CR), as well as acquisition, generalization, discrimination, and spontaneous recovery.
- Discuss the role of classical conditioning in human phobias and other types of behavior.

Think about an advertisement that you or someone you know has for a certain object or environment. Explain how classical conditioning might account for the pleasant associations.

Apply Your Knowledge

1. Many people have a taste aversion, a conditioned association between eating or drinking something and feeling sick. A taste aversion is likelier to occur when the food or drink is something that is relatively unpalatable. Suppose that you have acquired a taste aversion to spaghetti. Identify what the unconditioned stimulus, unconditioned response, conditioned stimulus, and conditioned response are in this example.

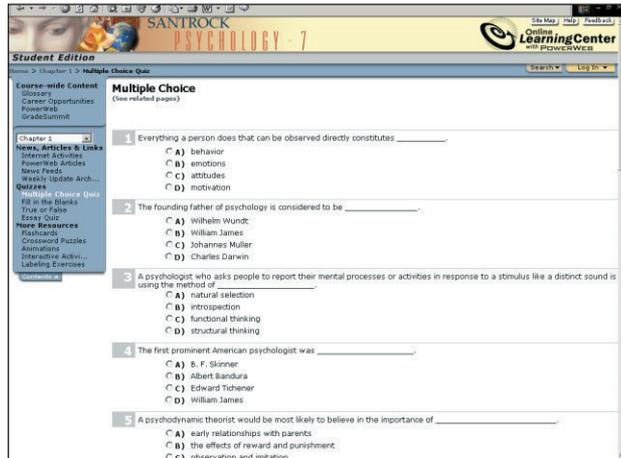
2. Positive and negative reinforcement are often difficult concepts to understand. On the following website, examples and a practice exercise may help you figure out the distinction more easily.
<http://openstax.org/r/behavioral-terminology>

Connections

To see your mastery of the material in this chapter, go to the Study Guide and the BioPsych Quiz CD-ROM, as well as the Online Learning Center. There you will find a chapter summary practice tests, flashcards, lecture slides, web links, and other study tools, with an interactive exercises and reviews as well as current chapter-related news articles.

Make Connections and Succeed!

Supplementary print and media resources include a variety of review and assessment tools that carry through the text's emphasis on key ideas, reinforcing learning and enhancing student **success**.



Online Learning Center

www.mhhe.com/santrocke2u

Student Resources Chapter outlines and practice quizzes are keyed to the text Learning Goals. The student section of the website also contains flashcards, interactive review exercises, and access, via **PowerWeb**, to current news about psychology, research tools, and many other valuable study tools.

Instructor Resources Teaching resources on this password-protected site include the Instructor's Course Planner, Image Bank, PowerPoint files, and Web links to additional resources.

Student Study Guide

A guided review of the chapter is organized by text section and Learning Goals, as are the three practice tests provided for each chapter. As in the text, **Connections** direct students to other text-correlated resources for additional help in mastering key ideas and concepts.

Instructor's Course Planner

The same Learning Goals that reinforce the key ideas in the text and Study Guide frame the teaching suggestions in this valuable manual. Chapter overviews, lecture/discussion suggestions, and goal reinforcement activities are a few of the resources provided in the Instructor's Course Planner.

New! In-Psych Plus CD-ROM

In-Psych Plus features video clips and interactivities that are referenced within the main text. The video clips, chosen for interest and relevance, expand on significant concepts and theories discussed in the text and are accompanied by summaries and quizzes. The CD-ROMs also include practice self-tests with feedback and a learning styles assessment, as well as other valuable features.



Chapter 1—What Is Psychology?

Learning Goals

1. Explain what psychology is and how it developed.
2. Describe six contemporary approaches to psychology.
3. Describe two movements that reflect a positive approach to psychology.
4. Evaluate careers and areas of specialization in psychology.
5. Apply some strategies that will help you succeed in psychology.

The Big Picture: Chapter Overview

Psychology is a science dedicated to the study of behavior and mental processes. In this chapter you are introduced to the history of this science, a variety of contemporary perspectives in psychology, the positive psychology movement, and an overview of psychology-related careers. At the end of the chapter, the reader learns about the most effective methods of studying and learning.

There are three concepts important to the definition of psychology: science, behavior and mental processes. Psychologists use scientific methods to observe, describe, predict, and explain behaviors and mental processes. Behaviors are actions that can be directly observed, while mental processes are experiences that cannot be observed directly, such as thoughts and feelings.

The history of psychology is rooted in philosophy, biology, and physiology. Rene Descartes and Charles Darwin strongly influenced the origins of psychology. Descartes contributed with his view of a separate mind and body, thus opening the door for studies focusing exclusively on the mind. Darwin proposed that humans are part of an evolutionary process he termed *natural selection*. This view led psychologists to consider the role of the environment and adaptation in psychology.

In 1879, Wilhelm Wundt developed the first psychology laboratory. Wundt's approach, which emphasized the importance of conscious thought and classification of the mind's structures, was called *structuralism*. While structuralism focused inside the mind, William James emphasized the functions of the mind in adapting to the environment. James's approach was called *functionalism*.

Structuralism and functionalism were the first two schools of thought in psychology; however, behaviors and piece of the

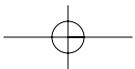
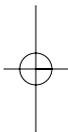
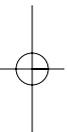
Chapter One: What Is Psychology?

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Chapter Overview

Study: Tiger Woods: By opening the chapter with this feature, Santrock illustrates one of psychology's most important constructs: The psychology of any human being is a complex system of thoughts and behaviors constructed from and influenced by multiple determinants. Because multiple determinants require multiple approaches, psychology studies the complexity of human nature from a multitude of perspectives—each designed to address very different aspects of what makes us human. The Tiger Woods theme is revisited for each psychological approach.

Defining Psychology: Psychology is defined as the scientific study of behavior and the mind. The science seeks to observe, describe, and explain behaviors and mental processes.



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Preface

Since I started teaching introductory psychology in 1967, my motivation and love for introducing students to this relevant science have not wavered. This commitment to relevance and to science has been not only a foundation of my teaching but also the heart of this book. This second edition of *Psychology: Essentials* still uses the theme of psychology as a relevant science and, in line with current trends in the discipline, has increased the emphasis on the biological aspects of psychology and on the positive changes psychology can help us achieve in our lives. These themes, together with a stronger focus on the key ideas in psychology, are the main features of this update of *Psychology: Essentials*.

New! Media Integration

References to video clips and interactivities, all drawn from various McGraw-Hill media resources and chosen for their interest and relevancy to the main content, appear within the main text. The *In-Psych Plus* CD-ROM marginal icon provides an additional, visual reference to the media. Each video and interactivity that is mentioned in the text appears on the *In-Psych Plus* CD-ROM, which is packaged free with the text. In addition, pedagogy, activities, test questions, and other features have been created to complement these video clips and reinforce students' grasp of the key concepts they illustrate. These materials are found on the *In-Psych Plus* CD-ROM, in the *Study Guide*, in the *Instructor's Course Planner*, and in the *Test Item Files*.

Psychology: The Relevant Science

Many students go into an introductory psychology class asking why they should study psychology when their major is physics, computer science, or French. To a psychologist, the answer is obvious: It will help you to understand yourself and others better. Psychology is relevant to almost every aspect of daily life. What psychologists have learned from memory research, for example, can be used to study more effectively, no matter what the subject is. Principles of learning can be applied to change undesirable behavior in children. Knowledge of sensation and perception can be used to design computers more effectively. Psychology teaches us about the roots of aggression and the influence of groups on individual behavior, highly relevant topics in light of recent terrorist activities. Research on stress, coping, and health

can help people to live fuller, happier lives, regardless of their circumstances.

In addition to relevance, this edition continues to stress the scientific nature of the discipline. A hallmark of the book has always been its focus on research, the foundation of all sciences. Here the latest research findings are discussed, along with the classic studies that established psychology as an objective science. There are more than 900 citations from the twenty-first century, including many from 2002 through 2004. Also, numerous new graphs show students how scientific data can be presented visually.

To make the second edition an up-to-date reflection of the discipline of psychology, I have interwoven a couple of new themes into the chapters:

- **Biological influences on behavior.** Psychologists are increasingly relying on neuroscience and genetics research to understand the effects of biology on behavior. Evolutionary psychology, which examines the survival value of human behaviors, is another area of increasing interest. Knowing that students often have difficulty understanding why it is important to learn biology in a course on psychology, I've taken particular care to present these topics in a psychological context and to underscore the complex relationship among biology, environment, and behavior wherever appropriate. Neuroscientist Lawrence Cauller provided outstanding guidance for incorporating stronger biological neuroscience in this edition.
- **Positive psychology.** Currently, there is a movement in psychology to focus attention on the positive contributions psychology can make to everyday life. Proponents of positive psychology, notably Mihaly Csikszentmihalyi, share the belief that, for much of the twentieth century, psychology concentrated on the negative aspects of life and that it's time to emphasize the positive aspects. Positive psychology offers us the opportunity to take control of and find balance in our lives. With Csikszentmihalyi's expert guidance, I have incorporated material on positive psychology throughout the book.

Focus on Key Ideas

Mastering the core content of the introductory psychology course is a significant challenge. Students today are often overwhelmed by information from lectures, textbooks, the

Internet, and other media and have more trouble than ever finding the main ideas in their courses. To address these challenges and help students achieve the best possible outcome, I have developed a learning system for this edition that emphasizes basic concepts and ideas, encourages review, and promotes critical thinking. This system frames the presentation in the textbook and the supplements, providing a truly integrated package that facilitates and reinforces learning.

The learning system has several components, all centered on three to six key ideas per chapter. These ideas are encapsulated in learning goals, which correspond with the chapter's main headings, as shown at the opening of each chapter. The learning goals reappear at several places in the chapter: as a question at the beginning of the main section, in a guided review at the end of the section (titled Review and Sharpen Your Thinking), and again in a summary at the end of the chapter. Each main section also begins with a content map of the section and subsection headings. A complete chapter map at the end of the chapter shows how all the sections work together to illuminate the topic. Thus the content maps provide a visual guide to the core concepts that support the learning goals.

To encourage application of the core concepts and increase the likelihood that they will be remembered, the learning system includes critical thinking questions keyed to the learning goals in the Review and Sharpen Your Thinking sections. Additionally, What do you think? exercises accompany the Critical Controversy boxes, and three or more critical thinking exercises follow the review section at the end of each chapter in the Apply Your Knowledge section. For students who have access to the Web, the end-of-chapter exercises include at least one Web-based activity.

To help students make the best use of the student supplements, an additional reminder appears in the Connections section at the very end of each chapter. Repeating the learning goals and maps in the student supplements reinforces the lessons from the book and eliminates the confusion many students have about how to use the supplements to boost performance in a course.

Changes in Coverage

In addition to increased emphasis on neuroscience, evolutionary psychology, and positive psychology, the second edition of this book contains increased coverage of human diversity and controversies in psychology. This material is presented where appropriate throughout the book.

The second edition of *Psychology: Essentials* has much the same table of contents and chapter sequence as the first edition, with two major exceptions. First, the chapter on human development now falls closer to the beginning of the book (chapter 3). Second, a chapter on health and well-being has been added (chapter 13).

The substance and presentation in each chapter have been thoroughly revised. Some of the detail that is less relevant today than it once was has been pruned to make room for cutting-edge research, and some of the presentation was reconceptualized to focus on the key ideas reflected in the learning goals. Although there isn't enough space here to list all of the changes in this edition, here are the highlights:

CHAPTER 1 The Science of Psychology

- New discussion of attitudes central to the scientific approach
- Reorganized section on research methods, focusing on descriptive, correlational, and experimental research and including new coverage of positive and negative correlations and their interpretation
- Expanded, updated coverage of the evolutionary psychology approach and a new section on positive approaches to psychology, including the humanistic movement and the positive psychology movement
- New section on how to get the most out of psychology, focusing on study habits and skills

CHAPTER 2 The Brain and Behavior

- New opening discussion of the characteristics of the nervous system, focusing on complexity, integration, adaptability, and electrochemical transmission
- Revised presentation of neuron structure and function, including new material on neurotransmitters and neural networks
- Updated coverage of functioning in the left and right hemispheres of the brain and many new drawings of the brain
- Separate section on the endocrine system
- New section on genetics and evolution

CHAPTER 3 Human Development

- Added coverage on the brain and how it changes from infancy to adulthood
- Revised discussion of socioemotional development in childhood, including the effects of parenting style and gender development
- New sections on positive psychology and development in childhood, adolescence, and adulthood
- Expanded discussion of biological aspects of aging, including updated information on Alzheimer's disease
- Updated coverage of cognitive changes and aging, including new figures on age-related changes in intellectual abilities and reaction time
- Discussion of research on what makes a successful marriage and research on emotion, social networks, and aging

CHAPTER 4 Sensation and Perception

- Completely revised discussion of how we sense and perceive the world
- New coverage on parallel processing in the visual cortex
- New information on sound localization in the discussion of the auditory system
- Expanded coverage of pain, including new discussions of the “fast” and “slow” pain pathways and pain control and treatment

CHAPTER 5 States of Consciousness

- Neuroscience coverage incorporated in sections on consciousness, stages of sleep, dreams, and psychoactive drugs
- Greater coverage of circadian rhythms
- New coverage of the role of sleep in the storage and maintenance of long-term memory
- Addition of recent research on sleep deprivation in adolescents and older adults
- Inclusion of new research on dream content across cultures
- Most recent data on trends in adolescent drug use

CHAPTER 6 Learning

- Expanded and clarified discussion of classical conditioning, including the role of classical conditioning in health problems and applications to consumer psychology
- Easier-to-understand examples of positive and negative reinforcement
- Improved comparison of punishment and negative reinforcement
- Expanded discussion of applications of operant conditioning, including the use of shaping and behavior modification in the classroom

CHAPTER 7 Memory

- Revised coverage of memory encoding, including the effects of divided attention
- Revised coverage of memory storage with a new section on connectionist networks
- Revised discussion of forgetting, including the forgetting curve, decay and transience, and motivated forgetting
- Complete reorganization of memory and study strategy section to correspond to the organization of the preceding discussion of memory

CHAPTER 8 Thinking, Language, and Intelligence

- Earlier discussion of the link between cognition and language
- Revised section on language acquisition and development, including material on the effects of maternal

speech on vocabulary development in infants and a new figure showing language milestones

- Added sections on theories of multiple intelligences and emotional intelligence
- New section on the influence of heredity and environment on intelligence, including gender and cultural comparisons

CHAPTER 9 Motivation and Emotion

- Improved section on motivation theory, including additional information on the evolutionary approach to motivation, arousal and sensation seeking, and intrinsic and extrinsic motivation
- Expanded and updated discussion of blood chemistry and obesity, neurotransmitters and hunger, obesity in the U.S., and anorexia nervosa and bulimia nervosa
- New discussion of the importance of self-generated goals in achievement, along with a cross-cultural comparison of math achievement in the United States, Japan, and Taiwan
- New discussion of the roles of neural circuits and neurotransmitters, including the links between emotion and the brain’s hemispheres
- New focus on positive emotions and how they might enhance people’s well-being

CHAPTER 10 Personality

- Revision of social cognitive theory section to include discussions of personal control, perceptions of control, and optimism
- Expansion of section on personality assessment to include assessment of the big five factors and locus of control

CHAPTER 11 Psychological Disorders

- Greater coverage of the multiaxial system in *DSM-IV*, including a new figure on the major categories of psychological disorders, organized according to Axis I and Axis II
- Introduction of the concept of etiology, new discussion of the etiology of anxiety disorders, and expanded discussion of post-traumatic stress disorder
- Updated discussion of mood disorders, including new coverage on neurobiological abnormalities and new material on the depressive realism view of depression
- New section on suicide, including comparison of suicide rates across cultures
- Expanded discussion of schizophrenia, including recent information about heredity and neurobiological factors

CHAPTER 12 Therapies

- Substantial reorganization to place biological therapies at the beginning of the chapter
- Updated discussion on the effects of drug therapies, including Prozac and Risperdal
- New sections on cognitive-behavior therapy and the use of cognitive therapy to treat psychological disorders
- New section on sociocultural approaches, including coverage of the community mental health movement
- New discussion of the relationship between the effectiveness of psychotherapy and ethnicity and gender

CHAPTER 13 Health and Well-Being

- Discussion of stress that focuses on sources—including the workplace—and physical, sociocultural, and cognitive responses
- Section on stress and illness that covers the link between positive emotions and health
- Section on coping strategies that covers problem-focused and emotion-focused coping, optimism and positive thinking, and the role of religion in helping people cope with stress
- Section on healthful living, with coverage of the effectiveness of the antidepressant Zyban, nicotine patches, and other methods in helping people to quit smoking

CHAPTER 14 Social Psychology

- Expanded discussion of the symptoms of groupthink and strategies for avoiding groupthink
- Discussion of leadership styles in women and men
- Expanded, updated discussion of prejudice, focusing on the reasons people develop prejudice
- Updated section on social interaction, including discussion of neurotransmitters and recent information on children's TV viewing habits and possible links to aggression
- Addition of recent research on gender and relationships

Print and Media Supplements

For the Student

Online Learning Center for Students The official website for *Psychology: Essentials* contains chapter outlines, practice quizzes that can be emailed to the professor, key term flashcards, interactive exercises, Internet activities, Web links to relevant psychology sites, drag-and-drop labeling exercises, Internet primer, career appendix, and a statistics primer. New and exclusive to this edition of the Online Learning Center is a collection of brief “FYI” enrichment articles about selected topics tied to each chapter at www.mhhe.com/santrockp2u.

PowerWeb This unique online tool, accessed through the Online Learning Center, provides current articles, curriculum-based materials, weekly updates with assessment, informative and timely world news, refereed Web links, research tools, study tools, and interactive exercises. A PowerWeb access card is packaged FREE with each new copy of *Psychology: Essentials*.

New! In-Psych Plus Student CD-ROM *In-Psych Plus* sets a new standard for introductory psychology multimedia. Packaged FREE with the book, *In-Psych Plus* is organized according to the textbook's chapter outlines and features video clips, audio clips, and interactivities chosen to illustrate especially difficult core concepts in introductory psychology. *In-Psych Plus* also includes a pre-test, follow-up assignments, Web resources, chapter quizzes, a student research guide, and an interactive timeline that puts events, key figures, and research in psychology in historical perspective.

GradeSummit This Internet service is a diagnostic self-assessment and exam-preparation tool designed to focus student attention on the key material and to make study time more efficient. *GradeSummit* reveals student strengths and weaknesses in comprehension and provides feedback and direction for increasing understanding. *GradeSummit* contains thousands of unique examlike questions written by professors and peer-reviewed for quality and accuracy. For more information, visit www.gradesummit.com.

Study Guide

Ruth Hallongren, Triton College

Designed to reinforce the key ideas in *Psychology: Essentials*, the *Study Guide* contains the following features for each chapter: content overview, learning objectives, guided review for each section, three practice tests, essay questions, crossword puzzle, learning goal checklist, and diagram labeling exercises.

Psych On-Line This supplement points the way to the Internet for psychology research and provides general resource locations. Psychology sites are grouped by topic with a brief explanation of each site.

For the Instructor

Instructor's Course Planner

Susan Weldon, Eastern Michigan University

This manual provides many useful tools to enhance teaching. For each chapter, the manual provides teaching objectives, chapter overviews, key terms, Teaching the Chapter, lecture/discussion suggestions, goal reinforcement classroom activities, an Experiencing Psychology boxed feature, critical thinking questions, video/media suggestions, and references and sources of bibliographical information.

Test Item Files

Test Item File I: Ron Mulson, Hudson Valley Community College

Test Item File II: Susan E. Swithers, Purdue University

Two sets of test items provide a wide variety of questions, enough to last the life of this edition. The questions in the *Test Item Files* are available in computerized format, as well as in Word and Rich Text formats, on the *Instructor's Resource CD-ROM*. With the computerized version, instructors can easily select questions and print tests and answer keys. Instructors can also customize questions, headings, and instructions; add or import their own questions; and print tests in a choice of printer-supported fonts.

PowerPoint Lectures Available on the Internet and on the *Instructor's Resource CD-ROM*, these presentations cover the key points of the chapter and include charts and graphs from the text. Helpful lecture guidelines are provided in the Notes section for each slide. They can be used as they are or modified to meet instructional needs.

Overhead Transparencies More than 70 key images from the text are available to the instructor upon adoption. A separate package, the *Introductory Psychology Transparency Set*, provides more than 100 additional images illustrating key concepts in general psychology.

Online Learning Center for Instructors The password-protected instructor side of the text website contains the *Instructor's Course Planner*, a sample chapter from the textbook, PowerPoint presentations, Web links, and other teaching resources at www.mhhe.com/Santrocek2u.

PageOut™ This exclusive McGraw-Hill product allows even the most inexperienced computer user to quickly and easily create a professional-looking course website. The instructor simply fills in templates with course-specific information and with content provided by McGraw-Hill and then chooses a design. Best of all, it's FREE! www.pageout.net

Instructor's Resource CD-ROM This comprehensive CD-ROM includes the contents of the *Instructor's Course Planner*; *Test Item Files* in computerized, Word, and Rich Text Versions; an image gallery; and PowerPoint slides. The Presentation Manager provides an easy-to-use interface for the design and delivery of multimedia classroom presentations.

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