

Psychology

EIGHTH EDITION

David G. Myers



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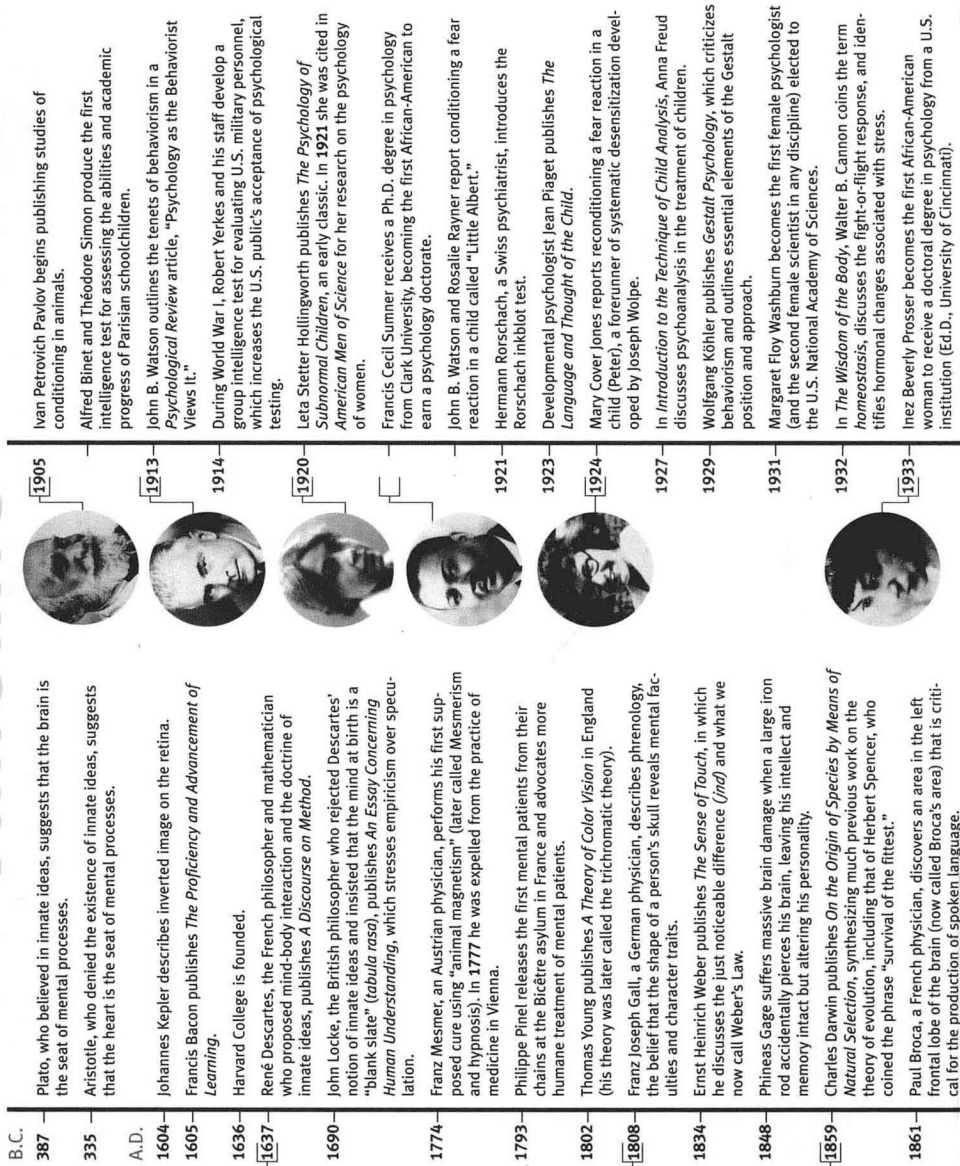
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1869

Francis Galton, Charles Darwin's cousin, publishes *Hereditary Genius*, in which he claims that intelligence is inherited. In 1876 he coined the expression "nature and nurture" to correspond with "heredity and environment."

1874

Carl Wernicke, a German neurologist and psychiatrist, shows that damage to a specific area in the left temporal lobe (now called Wernicke's area) disrupts ability to comprehend or produce spoken or written language.

1878

G. Stanley Hall receives from Harvard University the first Ph.D. degree in psychology awarded in the United States.

1879

Wilhelm Wundt establishes at the University of Leipzig, Germany, the first psychology laboratory, which becomes a Mecca for psychology students from all over the world.

1883

G. Stanley Hall, student of Wilhelm Wundt, establishes the first formal U.S. psychology laboratory at Johns Hopkins University. Hermann Ebbinghaus publishes *On Memory*, summarizing his extensive research on learning and memory, including the "forgetting curve."

1889

Alfred Binet and Henri Beaunis establish the first psychology laboratory in France at the Sorbonne, and the first International Congress of Psychology meets in Paris.

1890

William James, Harvard University philosopher and psychologist, publishes *The Principles of Psychology*, describing psychology as "the science of mental life."

1891

James Mark Baldwin establishes the first psychology laboratory in the British Commonwealth at the University of Toronto.

1892

G. Stanley Hall spearheads the founding of the American Psychological Association (APA) and becomes its first president.

1893

Mary Whiton Calkins (pictured) and Christine Ladd-Franklin are the first women elected to membership in the APA.

1894

Margaret Floy Washburn is the first woman to receive a Ph.D. degree in psychology (Cornell University).

1896

Harvard University denies Mary Whiton Calkins admission to doctoral candidacy because of her gender, despite Hugo Münsterberg's claim that she was the best student he had ever had there.

1898

John Dewey publishes "The Reflex Arc Concept in Psychology," helping to formalize the school of psychology called functionalism.

1900

In "Animal Intelligence," Edward L. Thorndike, Columbia University, describes his learning experiments with cats in "puzzle boxes." In 1905, he proposed the "law of effect."

1901

Sigmund Freud publishes *The Interpretation of Dreams*, his major theoretical work on psychoanalysis.

1905

Ten founders establish the British Psychological Society. Mary Whiton Calkins becomes the first woman president of the APA.

1935

Christiana Morgan and Henry Murray introduce the Thematic Apperception Test to elicit fantasies from people undergoing psychoanalysis.

1936

Egas Moniz, Portuguese physician, publishes work on the frontal lobotomies performed on humans.

1938

B. F. Skinner publishes *The Behavior of Organisms*, which describes operant conditioning of animals.

In *Primary Mental Abilities*, Louis L. Thurstone proposes seven such abilities.

Ugo Ceretelli and Lucio Bini use electroshock treatment with a human patient.

1939

David Wechsler publishes the Wechsler-Bellevue Intelligence Test, forerunner of the Wechsler Intelligence Scale for Children (WISC) and the Wechsler Adult Intelligence Scale (WAIS).

Mamie Phillips Clark receives a master's degree from Howard University. In collaboration with Kenneth B. Clark, she later extended her thesis, "The Development of Consciousness of Self in Negro Preschool Children," providing joint research cited in the U.S. Supreme Court's 1954 decision to end racial segregation in public schools.

Edward Alexander Bott helps found the Canadian Psychological Association. He becomes its first president in 1940.

World War II provides many opportunities for psychologists to enhance the popularity and influence of psychology, especially in applied areas.

1943

Psychologist Starke Hathaway and physician J. Chanley McKinley publish the Minnesota Multiphasic Personality Inventory (MMPI).

1945

Karen Horney, who criticized Freud's theory of female sexual development, publishes *Our Inner Conflicts*.

1946

Benjamin Spock's first edition of *The Common Sense Book of Baby and Child Care* appears; the book will influence child rearing in North America for several decades.

1948

Alfred Kinsey and his colleagues publish *Sexual Behavior in the Human Male*.

B. F. Skinner's novel, *Walden Two*, describes a Utopian community based on positive reinforcement, which becomes a clarion call for applying psychological principles in everyday living, especially communal living.

Ernest R. Hilgard publishes *Theories of Learning*, which was required reading for several generations of psychology students in North America.

1949

Raymond B. Cattell publishes the Sixteen Personality Factor Questionnaire (16PF).

Psychology

In memory of
Phyllis J. Vandervelde (1939-2005)

Beloved friend of four decades and manuscript developer for all eight editions of this book, with deep gratitude for her extraordinary commitment to excellence.

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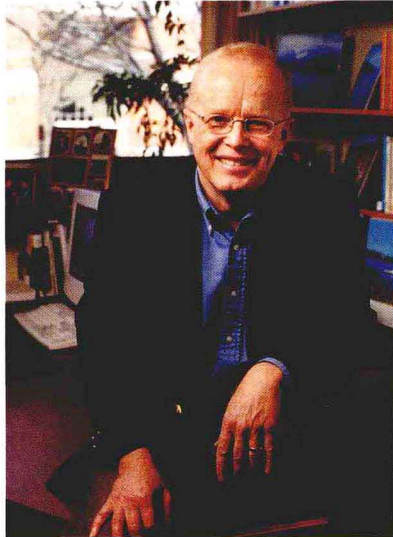
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About the Author

David Myers received his psychology Ph.D. from the University of Iowa. He has spent his career at Hope College, Michigan, where he is the John Dirk Werkman Professor of Psychology and has taught dozens of introductory psychology sections. Hope College students have invited him to be their commencement speaker and voted him "outstanding professor."

Myers' scientific articles have, with support from National Science Foundation grants, appeared in more than two dozen scientific periodicals, including *Science*, *American Scientist*, *Psychological Science*, and the *American Psychologist*. In addition to his scholarly writing and his textbooks for introductory and social psychology, he also digests psychological science for the general public. His writings have appeared in three dozen magazines, from *Today's Education* to *Scientific American*. He also has authored five general audience books, including *The Pursuit of Happiness* and *Intuition: Its Powers and Perils*.

David Myers has chaired his city's Human Relations Commission, helped found a thriving assistance center for families in poverty, and spoken to hundreds of college and community groups. He bikes to work year-round and plays daily pick-up basketball. David and Carol Myers have raised two sons and a daughter.



| Preface |

Two decades of time's ever rolling stream have flowed swiftly by since publication of this book's first edition. And what an amazing two decades it has been. Hardly a day goes by without my feeling gratitude for the privilege of assisting with the teaching of psychology to so many students, in so many countries, through so many different languages. To be entrusted with discerning and communicating the wisdom of this humanly significant discipline is both an exciting honor and a great responsibility.

What sustains my motivation is, first, my continuing appreciation for psychological science and its ever-expanding understandings, and, second, my commitment to the students and teaching colleagues with whom this book enables me to have conversation. I love the mind-expanding learning that comes from my day-to-day reading of psychological science, and I love connecting with so many people (many hundreds of whom have written to share their experiences and gentle words of advice).

Although each new edition of this text appears every three years, it is a rare day in between those editions when I do not harvest new information about the field I love and its application to everyday life. Week by week, new information surprises us with discoveries about, for example, the neuroscience of our moods and memories, the reach of our adaptive unconscious, and the shaping power of our social and cultural context. No wonder this book has changed dramatically since I set to work on the first edition 23 years ago. Today's psychological science is more attuned to the relative effects of nature and nurture, to gender and cultural diversity, to our conscious and unconscious information processing, and to the biology that underlies our behavior (see **TABLES 1 and 2**, page xx). We today can also harness new ways to present information, both in books and via electronic media. These changes are exhilarating! Keeping up with new discoveries fills each day and connects me with many colleagues and friends.

The thousands of instructors and millions of students across the globe who have studied this book have contributed immensely to its development. Much of this has occurred spontaneously, through correspondence and conversations. For this edition, we also formally involved over 800 researchers and teaching psychologists, along with many students, in our efforts to gather accurate and up-to-date information about the field of psychology and the content, pedagogy, and supplements needs of instructors and students in the introductory course. Moreover, we look forward to continuing feedback as we strive, over future editions, to create an ever better book.

What Continues?

Throughout its eight editions, however, my vision for *Psychology* has not wavered: *to merge rigorous science with a broad human perspective in a book that engages both mind and heart*. My aim has been to create a state of the art introduction to psychology, written with sensitivity to students' needs and interests. I aspire to help students understand and appreciate the wonder of important phenomena of their lives. I also want to convey the inquisitive spirit in which psychologists *do* psychology. The study of psychology, I believe, enhances our abilities to restrain intuition with critical thinking, judgmentalism with compassion, and illusion with understanding.

Believing with Thoreau that "Anything living is easily and naturally expressed in popular language," I seek to communicate psychology's scholarship with crisp narrative and vivid storytelling. Writing as a solo author, I hope to tell psychology's story in

Table 1: Evolutionary Psychology and Behavioral Genetics

In addition to the coverage found in Chapter 3, the **evolutionary perspective** is covered on the following pages:

Aging, p. 178	Intelligence, pp. 459–461
Anxiety disorders, pp. 654–655	Language, pp. 410, 414–415
Attraction, pp. 111–112, 758–759	Love, p. 187
Biological predispositions in learning, pp. 321–323, 335–336	Need to belong, p. 495
Brainstem, p. 71	Obesity, pp. 581–582
Charles Darwin, p. 9	Overconfidence, p. 403
Electromagnetic spectrum, sensitivity to, p. 204	Puberty, onset of, pp. 173–174
Emotion, pp. 404–405, 529, 530, 534	Risk taking, p. 111
Emotion-detecting ability, p. 464	Sensation, pp. 198, 224
Evolutionary perspective, defined, p. 11	Sensory adaptation, pp. 202–203, 256
Exercise, p. 569	Sexual attraction, pp. 111–112
Fear, pp. 404–405, 533–534	Sexual orientation, pp. 490–491
Hearing, p. 215	Sexuality, p. 481
Hunger and taste preference, pp. 477–478	Signal detection theory, p. 199
Instincts, pp. 470–471	Sleep, pp. 276, 282
	Smell, pp. 231–233
	Stress and the immune system, pp. 557–558

In addition to the coverage found in Chapter 3, **behavior genetics** is covered on the following pages:

Abuse, intergenerational transmission of, p. 343	Perception, pp. 254–261
Aggression, p. 749	Personality traits, pp. 619–621
Biomedical therapies, pp. 711–718	Psychological disorders:
Depth perception, p. 245	anxiety disorders, pp. 649–650
Drives and incentives, p. 471	biopsychosocial approach, p. 643
Drug use, pp. 305–307	mood disorders, pp. 658–668
Emotion and cognition, pp. 521–523	personality disorders, pp. 656–657, 677–679
Fear, pp. 534–535	schizophrenia, pp. 669–676
Happiness, pp. 542–544	Romantic love, p. 187
Hunger, taste preference, pp. 477–478	Sexuality, p. 481
Intelligence, pp. 423, 440, 452–464	Sexual orientation, p. 490–491
Learning, pp. 321–323, 335–336	Smell, pp. 231–233
Motor development, p. 145	Stress, personality, and illness, pp. 555–556, 559–561, 570–571
Obesity and weight control, pp. 585–587	Traits, p. 460

Table 2: Neuroscience

In addition to coverage found in Chapter 2, **neuroscience** can be found on the following pages:

Antisocial personality disorder, pp. 677–678	Fetal alcohol syndrome and brain abnormalities, p. 142	Mirror neurons, pp. 341–342	Perception:
Autism, p. 152	Hallucinations and:	Neuroscience perspective, defined, p. 11	brain damage and, pp. 198, 210–211
Biofeedback, pp. 561–572	sleep, p. 288	Neurotransmitters and:	color vision, pp. 212–214
Brain activity and	hallucinogens, pp. 302–303	biomedical therapy:	feature detection, pp. 209–210
aging, pp. 179–180, 183–185, 376	near-death experiences, p. 309	depression, pp. 664–665, 713–715	transduction, p. 115
aggression, p. 522	Hormones and:	ECT, pp. 715–717	visual information processing, pp. 208–211
dementia and Alzheimer's, pp. 180–181, 365	abuse, p. 159	obsessive-compulsive disorder, p. 697	Schizophrenia and brain abnormalities, pp. 672–673
disease, p. 220	development, pp. 129–130, 165–167	psychosurgery, pp. 717–718	Sensation:
dreams, pp. 287–288	emotion, pp. 516–517	schizophrenia, pp. 672–673, 711–712	body position and movement, pp. 233–234
emotion, pp. 166, 233, 366, 517–520, 522	memory, pp. 365–367	child abuse, p. 159	deafness, pp. 220–221
sleep, pp. 275–278	sex, pp. 129–130, 165–166, 176, 463, 482–483, 516	depression, pp. 643, 664–665	hearing, pp. 219–221
Brain development:	stress, pp. 516–517, 533, 551–553, 555, 557, 566	drugs, pp. 298–299, 300–303	sensory adaptation, p. 203
adolescence, p. 166–167	weight control, pp. 475–476	exercise, p. 568	smell, pp. 231–233
experience and, pp. 114–116	Hunger, pp. 475–476	narcolepsy, p. 284	taste, pp. 229–231
infancy and childhood, pp. 144–145	Insight, p. 398	obsessive-compulsive disorder, p. 697	Sexual orientation, pp. 489–492
sexual differentiation in utero, p. 130	Intelligence, pp. 440–441, 455	schizophrenia, pp. 672–673	Sleep,
Consciousness, p. 273	Language, statistical learning, pp. 415–417	smoking, p. 578	memory and, p. 283
Drug dependence, p. 306	Memory,	Pain, pp. 226–229	recuperation during, pp. 282–283
Emotion and cognition, pp. 521–522	physical storage of, pp. 364–366, 368, 369	phantom limb pain, pp. 226–227	
Fear-learning, p. 654	sleep, pp. 283, 287–288	Parallel vs. serial processing, p. 210	

a way that is warmly personal as well as rigorously scientific. I love to reflect on connections between psychology and other realms, such as literature, philosophy, history, sports, religion, politics, and popular culture. And I love to provoke thought, to play with words, and to laugh.

Although supplemented by added story telling, this new edition retains its predecessors' voice and much of its content and organization. It also retains the goals—the guiding principles—that have animated the previous seven editions:

1. **To exemplify the process of inquiry** I strive to show students not just the outcome of research, but how the research process works. Throughout, the book tries to excite the reader's curiosity. It invites readers to imagine themselves as participants in classic experiments. Several chapters introduce research stories as mysteries that progressively unravel as one clue after another falls into place. (See, for example, the historical story of research on the brain's processing of language on pages 413–417.)
2. **To teach critical thinking** By presenting research as intellectual detective work, I exemplify an inquiring, analytical mind-set. Whether students are studying development, cognition, or statistics, they will become involved in, and see the rewards of, critical reasoning. Moreover, they will discover how an empirical approach can help them evaluate competing ideas and claims for highly publicized phenomena—ranging from subliminal persuasion, ESP, and alternative therapies to astrology, hypnotic regression, and repressed and recovered memories.
3. **To put facts in the service of concepts** My intention is not to fill students' intellectual file drawers with facts, but to reveal psychology's major concepts—to teach students how to think, and to offer psychological ideas worth thinking about. In each chapter I place emphasis on those concepts I hope students will carry with them long after they complete the course. Always, I try to follow Albert Einstein's dictum that “Everything should be made as simple as possible, but not simpler.”
4. **To be as up-to-date as possible** Few things dampen students' interest as quickly as the sense that they are reading stale news. While retaining psychology's classic studies and concepts, I also present the discipline's most important recent developments. Nearly 500 references in this edition are dated 2004 or 2005.
5. **To integrate principles and applications** Throughout—by means of anecdotes, case histories, and the posing of hypothetical situations—I relate the findings of basic research to their applications and implications. Where psychology can illuminate pressing human issues—be they racism and sexism, health and happiness, or violence and war—I have not hesitated to shine its light.
6. **To enhance comprehension by providing continuity** Many chapters have a significant issue or theme that links subtopics, forming a thread that ties the chapter together. The Learning chapter conveys the idea that bold thinkers can serve as intellectual pioneers. The Thinking and Language chapter raises the issue of human rationality and irrationality. The Psychological Disorders chapter conveys empathy for, and understanding of, troubled lives. “The uniformity of a work,” observed Edward Gibbon, “denotes the hand of a single artist.” Because the book has a single author, other threads, such as behavior genetics and cultural diversity, weave throughout the whole book, and students hear a consistent voice.
7. **To reinforce learning at every step** Everyday examples and rhetorical questions encourage students to process the material actively. Concepts presented earlier are frequently applied, and thereby reinforced, in later chapters. For instance, in Chapter 5 students learn that much of our information processing occurs *outside* of our conscious awareness. Ensuing chapters reinforce this concept. Learning Objectives, Learning Outcomes, self-tests, a marginal glossary, and end-of-chapter key terms lists help students master important concepts and terminology.

8. To convey respect for human unity and diversity Especially in newly revised Chapter 3, *Nature, Nurture, and Human Diversity*, but also throughout the book, readers will see evidence of our human kinship—our shared biological heritage, our common mechanisms of seeing and learning, hungering and feeling, loving and hating. They will also better understand the dimensions of our diversity—our *individual* diversity in development and aptitudes, temperament and personality, and disorder and health; and our *cultural* diversity in attitudes and expressive styles, childrearing and care for the elderly, and life priorities.

What's New?

Despite the overarching continuity, there is change on every page. In addition to updates everywhere and 900 new references—comprising 24 percent of the bibliography—I have introduced the following major changes to *Psychology*, eighth edition:

Increased Coverage of Cultural and Gender Diversity

This edition presents an even more thoroughly cross-cultural perspective on psychology (TABLE 3)—reflected in research findings, and text and photo examples. Coverage of the psychology of women and men is thoroughly integrated (see TABLE 4). In addition, I am working to offer a world-based psychology for our worldwide student readership.

Table 3: Cultural and Multicultural Experience

From the Prologue to Chapter 18, coverage of **culture and multicultural experience** can be found on the following pages:

Aging population, pp. 177–178	Dieting, p. 582	Life-expectancy, pp. 177–178	rates of, pp. 680–681
Aggression, pp. 749, 752, 753	Drugs, psychological effects of, p. 300	Life satisfaction, pp. 538–541	schizophrenia, p. 643
AIDS, pp. 190, 406, 558–559	Emotion:	Management styles, p. 509	susto, p. 643
Alcoholism, pp. 299–300	emotion-detecting ability, pp. 524–525	Marijuana use, p. 307	taijin-kyofusho, p. 643
Anger, pp. 535–537	expressing, pp. 526, 528–531, 536, 537	Marriage, p. 187	Psychotherapy:
Animal research ethics, p. 47	experiencing, pp. 535–536, 537, 540–541	Medical risk, p. 460	EMDR training, p. 706
Attractiveness, pp. 110–111, 759–762	Enemy perceptions, p. 758	Meditation, pp. 571–572	Psychoanalysis, p. 687
Behavioral effects of culture, pp. 47–48, 103–104	Flynn effect, pp. 447–448	Memory, encoding, pp. 360, 559	Psychotherapists and values, pp. 708–710
Categorization, p. 397	Gender:	Mental illness rate, p. 680	Puberty and adult independence, pp. 173–174
Conformity, pp. 731, 733, 734	roles, pp. 131–132	Need to belong, pp. 495–496	Self-esteem, pp. 543–544, 633
Corporal punishment practices, pp. 332–333	social connectedness, p. 170	Obesity, pp. 586–587	Self-serving bias, p. 634
Cultural norms, pp. 120, 131–132	Grief, expressing, p. 191	Observational learning:	Sexual attraction, p. 111
Culture and the self, pp. 121–123	Happiness, pp. 539–541, 543–544	television viewing, p. 160	Sexual orientation, pp. 487–488
Culture context effects, p. 260	Hindsight bias, p. 21	television and aggression, pp. 344–345	Size-distance relationship, pp. 251–252
Culture shock, pp. 120–121, 553	History of psychology, pp. 3–7	Pace of life, pp. 30, 120–121	Smoking, pp. 575–581
Deaf culture, pp. 83, 86, 88, 220–223, 411, 412, 413–414, 417, 420	Homosexuality, views on, p. 27	Parapsychology, pp. 264, 268	Social-cultural perspective, pp. 10–13
Depression, p. 662	Human diversity/kinship, pp. 47–48, 120–124	Participative management, p. 509	Social clock, p. 186
Development:	Hunger, p. 477	People with disabilities, p. 539	Stress:
adolescence, p. 165	Individualism/collectivism, pp. 121–124	Perception, pp. 237, 252	adjusting to a new culture, pp. 553–554
attachment, pp. 157–161	Intelligence, pp. 446–448, 459–461	Personal space, p. 120	poverty and inequality/life-expectancy, pp. 563, 564, 565
child-rearing, p. 124	bias, pp. 464–466	Poverty and inequality, p. 31	Suicide, p. 662
cognitive development, p. 154	Language, pp. 119, 411, 414–415, 418–420	Prejudice, pp. 743–748	Teen sexuality, pp. 485–487
developmental similarities, p. 125	Leaving the nest, pp. 173–174	Prejudice prototypes, p. 397	Testing bias, pp. 464–466
moral development, p. 168		Psychological disorders:	See also Chapter 18, Social Psychology, pp. 722–772
motor development, p. 142		antisocial personality disorder, p. 679	
social development, p. 157		dissociative personality disorder, p. 657	
		eating disorders, pp. 478–480, 643	

Table 4: The Psychology of Men and Women

Coverage of the **psychology of men and women** can be found in the following pages:

ADHD, p. 641	Fear, p. 534	Life expectancy, p. 178	Sexual attraction, pp. 111–112
Aggression, pp. 749, 750	Freud's views, pp. 598–599, 604	Marriage, p. 566	Sexual disorders, p. 482
Alcohol use, pp. 298–300	Gender and child-rearing, pp. 132–133, 479, 486	Maturation, pp. 165–167	Sexual fantasies, pp. 484, 485
Autism, p. 152	Gender roles, pp. 131–132	Menarche, p. 166	Sexual orientation, pp. 487–493
Behavioral effects of gender, p. 46	Gender prejudice, p. 745	Menopause, pp. 176–177	Sexuality, pp. 110–111, 481–485
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Body image, p. 479	Generic pronoun “he,” p. 419	Obesity, pp. 582–584	Smoking, pp. 111, 141, 579–580
Changes in physical development, pp. 176–177	Happiness, p. 544	Pornography, pp. 484, 752–754	Social connectedness, pp. 565–566
Depression, pp. 659, 667	Heart disease, pp. 555–556	Prejudice, pp. 397, 745–746	Stereotyping, p. 261
Dieting, pp. 582–583, 587	Help-receiving, p. 766	Psychological disorders, rates of, pp. 680–681	Stress, pp. 555–556
Dream content, pp. 286–288	Hormones and:	Rape, pp. 325, 753–754	response, p. 553
Drugs and addiction, pp. 299, 300	aggression, pp. 750	REM sleep, arousal in, p. 278	in marriage, pp. 565–566
Eating disorders, pp. 478–480	sexual behavior, pp. 482–483	Risk taking, p. 111	sexual abuse, p. 566
Emotion-detecting ability, pp. 464, 526–527	sexual development, pp. 129–130, 165–167	Savant syndrome, pp. 433–434	Suicide, pp. 662–663
Emotional expression, pp. 190, 524–526	Immune system, p. 557	Schizophrenia, pp. 669, 671	Weight discrimination, pp. 583–584
Empty nest, p. 188	Intelligence, pp. 461–464	Sense of smell, p. 232	Women and work, p. 189
Father care, pp. 157, 486	bias, p. 465	Sexual abuse, pp. 109, 158–159, 299, 567	Women in psychology, p. 6
			See also Chapter 18, Social Psychology, pp. 722–771

Thus, I continually search the world for research findings and text and photo examples, conscious that readers may be in Melbourne, Sheffield, Vancouver, or Nairobi. North American and European examples come easily, given that I reside in the United States, maintain contact with friends and colleagues in Canada, subscribe to several European periodicals, and live periodically in the U.K. This edition, for example, offers 82 explicit Canadian and 142 British examples, and 82 mentions of Australia and New Zealand. We are all citizens of a shrinking world, thanks to increased migration and the growing global economy. Thus, American students, too, benefit from information and examples that internationalize their world-consciousness. And if psychology seeks to explain *human* behavior (not just American or Canadian or Australian behavior), the broader the scope of studies presented, the more accurate is our picture of this world's people. My aim is to expose all students to the world beyond their own culture. Thus, I continue to welcome input and suggestions from all readers. Our **revised Chapter 3, retitled *Nature, Nurture, and Human Diversity***, encourages students to appreciate cultural and gender differences and commonalities, and to consider the interplay of nature and nurture.

Each chapter opening art page now includes a **brief literary excerpt from varied cultural perspectives**. These excerpts, from Maya Angelou, Judith Ortiz Cofer, Jhumpa Lahiri, Faiz Ahmed Faiz, Gwendolyn Brooks, and others offer “Another Voice” on the chapter's topic. In addition, **many new photos** showcase the diversity of cultures within North America, as well as across the globe. In addition to significant cross-cultural examples and research presented within the narrative, these new photos with informative captions freshen each chapter and broaden students' perspectives in applying psychological science to their own world and to the worlds across the globe.

A Revised and Thoroughly Considered Pedagogical Program

In addition to the new chapter-opening literary excerpts, this edition includes the following new study aids.

- **New numbered Learning Objectives** introduce significant sections of text (around 15–30 per chapter) and direct student reading. These Learning Objectives organize the Study Guide and the Test Banks and are listed in the Instructor's Resources.

- **New Learning Outcomes**, found at the end of each major section of text, repeat the Learning Objectives and address them with a narrative summary.
- The Learning Outcomes sections also include at least one **Ask Yourself question**, which encourages students to apply new concepts to their own experiences.
- **Chapter-ending Review sections** contain 3-5 short-answer **Test Yourself questions** (with answers in an appendix) that assess student mastery and encourage big picture thinking, followed by page-referenced **Terms and Concepts to Remember**.

Greater Emphasis on the Biological-Psychological-Social/Cultural Levels of Analysis Approach in Psychology

This edition now systematically includes coverage of the biological, psychological, and social-cultural influences on our behavior. A significant new section in the Prologue introduces the levels-of-analysis approach, setting the stage for future chapters, and new levels-of-analysis figures in most chapters help students understand concepts in the biopsychosocial context. Richard Straub's new, accompanying interactive Visual Concept Review booklet also includes levels-of-analysis visual summary reviews.

Greater Sensitivity to the Clinical Perspective

With helpful guidance from clinical psychologist colleagues, I have been more mindful in this edition of the clinical angle on various concepts within psychology, which has sensitized and improved the Personality, Psychological Disorders, and Therapy chapters, among others. For example, I now cover problem-focused and emotion-focused coping strategies in the Stress and Health chapter, and the Intelligence chapter includes several mentions of how intelligence tests are used in clinical settings.

New Teaching and Learning Resources

Our supplements and media have been celebrated for their quality, abundance, and accuracy. The package available for *Psychology*, Eighth Edition, raises the bar even higher. New media items include the *ActivePsych* classroom activity CD-ROMs, the new Online Study Center 2.0 for students, and enhanced course management solutions. New print supplements include Martin Bolt's Instructor's Media Guide, Richard Straub's Visual Concept Reviews, and a thoroughly revised Test Bank. See page xxvi for details.

New Careers in Psychology Appendix, by Dr. Jennifer Lento, University Of San Diego

This highly applied and research-based appendix provides guidance to students considering a psychology major and/or career. Topics covered include the benefits of studying psychology and obtaining a psychology degree, psychology careers available and the job market landscape for students at all levels (bachelors, masters, doctorate), career options within the sub-fields in psychology (such as clinical, counseling, community, school, forensic, and sports psychology), and early preparation tips for those considering graduate school.

Enhanced Critical Thinking Coverage

I aim to introduce students to critical thinking in a very natural way throughout the book, with even more in the narrative that encourages active learning of psychology's key concepts. In addition to the new Learning Objectives and Learning Outcomes, which encourage critical reading to glean an understanding of important concepts, the eighth edition includes the following opportunities for students to learn or practice their critical thinking skills.

- **Chapter 1 takes a unique, critical thinking approach to introducing students to psychology's research methods**, emphasizing the fallacies of our everyday intuition and common sense and, thus, the need for psychological science. Critical thinking is introduced as a key term in this chapter (p. 24). The discussions of Statistical Reasoning encourages students to "focus on thinking smarter by applying simple statistical principles to everyday reasoning" (pp. 39–40).
- **"Thinking Critically About . . ." boxes** are found throughout the book, modeling for students a critical approach to some key issues in psychology. For example, see the new box "Thinking Critically About: ADHD—Pathologizing Rambunctiousness or Genuine Disorder?" on p. 641.
- **Detective-style stories** throughout the narrative get students thinking critically about psychology's key research questions.
- **"Apply this"** and **"Think about it"** style discussions keep students active in their study of each chapter.
- **Critical examinations of pop psychology** spark interest and provide important lessons in thinking critically about everyday topics.

See **TABLE 5** for a complete list of this text's coverage of critical thinking topics and Thinking Critically About boxes.

Table 5: Critical Thinking and Research Emphasis

Critical thinking coverage, and in-depth stories of psychology's scientific research process, can be found on the following pages:

Thinking Critically About . . . boxes:	Critiquing the evolutionary perspective, pp. 112–113	Thinking Critically with Psychological Science:	Why do we sleep?, pp. 279–283
Desegregation and the Death Penalty—When Beliefs Collide With Psychological Science, p. 50	How great is the power of parenting?, pp. 116–117	The limits of intuition and common sense, pp. 19–22	Why do we dream?, pp. 287–289
Left Brain/Right Brain, p. 87	Sensory restriction, pp. 255–256	"Critical thinking" introduced as a key term, p. 24	Is hypnosis an altered state of consciousness?, pp. 294–295
The Fear Factor—Do We Fear the Right Things?, pp. 404–405	Is there extrasensory perception?, pp. 264–268	The scientific attitude, pp. 23–24	How do we store memories in our brains?, pp. 364–369
Lie Detection, pp. 520–521	Can hypnosis enhance recall? Coerce action? Be therapeutic? Alleviate pain?, pp. 292–293	The scientific method, pp. 24–26	Memory construction, pp. 382–390
Alternative Medicine: New Ways to Health or Old Snake Oil?, pp. 570–571	Has the concept of "addiction" been stretched too far?, pp. 297–298	Correlation and causation, pp. 32–33	Do animals exhibit language?, pp. 425–428
How to Be a "Successful" Astrologer or Palm Reader, pp. 616–617	Near-death experiences, pp. 309–310	Illusory correlation, pp. 33–34	Why do we feel hunger?, pp. 474–477
ADHD—Pathologizing Rambunctiousness or Genuine Disorder?, p. 641	Do animals exhibit language?, pp. 425–428	Exploring cause and effect, pp. 36–37	What determines sexual orientation?, pp. 488–493
Insanity and Responsibility, p. 648	Is aerobic exercise therapeutic?, pp. 567–569	Evaluating therapies, pp. 37–38	The pursuit of happiness: Who is happy, and why?, pp. 537–545
Dissociation and Multiple Personalities, pp. 656–657	Spirituality and faith communities, pp. 572–575	Statistical reasoning, pp. 39–40	Why—and in whom—does stress contribute to heart disease?, pp. 555–556
"Regressing" from Unusual to Usual, p. 701	How valid is the Rorschach test?, pp. 602–603	Making inferences, pp. 42–44	How and why is social support linked with health?, pp. 564–567
Critical Examinations of Pop Psychology:	Is repression a myth?, pp. 604–605	Scientific Detective Stories:	Self-esteem versus self-serving bias, pp. 633–636
Do Video Games Teach or Release Violence?, pp. 754–756	Is Freud credible?, pp. 604–607	Is breast milk better than formula?, pp. 36–37	What causes mood disorders?, pp. 658–668
Perceiving order in random events, pp. 34–35	Post-traumatic stress disorder, pp. 652–653	Language in the brain, pp. 80–82	Do prenatal viral infections increase risk of schizophrenia?, pp. 673–674
Do we use only 10 percent of our brains?, pp. 79–80	Is psychotherapy effective?, pp. 700–705	Our divided brains, pp. 83–88	Is psychotherapy effective?, pp. 700–705
	Evaluating alternative therapies, pp. 705–707	The twin and adoption studies, pp. 97–101	Why do people fail to help in emergencies?, pp. 765–766
		How a child's mind develops, pp. 147–154	
		Aging and intelligence, pp. 183–185	
		Parallel processing, pp. 210–211	
		How do we see in color?, pp. 212–214	

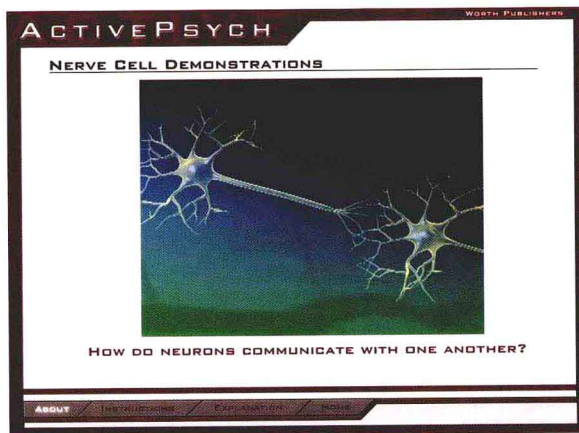
Innovative Multimedia Supplements Package

Psychology, Eighth Edition, boasts a host of new electronic and print supplements titles.

Media Supplements

New! ActivePsych Instructor's Classroom Exercise CD-ROMs include interactive activities designed for in-class presentation and group participation, as well as a robust library of new clips and animations. These activities require very little instructor preparation (just load the CD and launch the activity) and are designed to foster class discussion and critical thinking. The ActivePsych suite of instructor presentation CD-ROMs includes the following:

- *More than 30 interactive activities*, including animations, video clips, illustrations, photographs, and critical thinking questions. A number of activities have been adapted from Martin Bolt's *Instructor's Resources* and Thomas Ludwig's *Psych-Sim 5.0* (and are now classroom presentation-friendly). ActivePsych also includes a significant number of completely original, creative activities, all authored (and class-tested) by veteran introductory psychology teachers.
- *Approximately 30 completely new short video clips*, drawn from a variety of sources, and numerous new animations.
- *New! Scientific American Frontiers Teaching Modules, Third Edition*, which have been housed in ActivePsych and edited by Martin Bolt. The Third Edition offers you 15 edited clips from *Scientific American Frontiers* segments produced between 2003-2005.



New! Instructor's Media Guide (based on trusted *Instructor's Resources* author Martin Bolt's work) expands the Lecture Guides and offers instructors a simple way to incorporate instructor media, presentation, and video resources into their course.

New! Online Study Center 2.0 for *Psychology*, Eighth Edition The customized Online Study Center (OSC) offers students a variety of tools to help them master the course: