CHAPTER 1 WHAT IS PSYCHOLOGY?  1

DEFINING PSYCHOLOGY  2
APPLICATIONS: Careers in Psychology  3

PSYCHOLOGY’S ROOTS  5
   History of Psychology—A Brief Overview  5
   Pre-Psychology Philosophers and Scientists  5
       Ancient Greece—Aristotle  6
       René Descartes, John Locke, Gottfried Leibnitz—Philosophers discuss the Mind  6
       Ernst Weber, Gustav Fechner, and Hermann von Helmholtz—Sensation and Psychophysics  8
   SCIENCE OF PSYCHOLOGY JOURNAL: Helmholtz’ Classic Experiment on the Speed of Nerve Impulses  9
   Wilhelm Wundt—The First Psychologist  10
       The Birth of Psychology—1879  10
       Looking into the Mind—Introspection  10
       Wundt’s Downfall—The Failure of Introspection  11
   Structuralism and Functionalism in American Psychology  11
       E. B. Titchener—Structuralism  11
       Charles Darwin—The Theory of Evolution  12
       William James—Functionalism  13
   Animal Intelligence—Anecdotal Versus Empirical Evidence  14
   Behaviorism—Focusing on the Observable  15
       Ivan Pavlov—The Conditioned Reflex  15
       E. L. Thorndike—The Law of Effect  16
       John B. Watson—American Behaviorism  16
       E. C. Tolman—Rats and Mazes  17
       B. F. Skinner—The Rise of Behaviorism  18
   Gestalt Psychology  19
       The Psychodynamic View—A Medical Perspective  20
       Sigmund Freud—The Birth of Psychoanalysis  20
       The Psychodynamic School of Thought  21
       The Neo-Freudians  21
   Humanism—Abraham Maslow and Carl Rogers  21
       The Return of Consciousness—The Cognitive Revolution  23
   Biological, Evolutionary, and Genetic Approaches  23
       Neuroscience  23
       Evolutionary Psychology  24
       Behavior Genetics  24
       Molecular Genetics  24
   GOING BEYOND THE DATA: Four Views of Human Nature  25

ACADEMIC PSYCHOLOGY TODAY  26
KEY ISSUES IN PSYCHOLOGY—A REVIEW  27
   Free Will Versus Determinism  28
   Nature Versus Nurture  28
   Dualism Versus Monism  28
   Empirical Versus Anecdotal Evidence  28

CHAPTER 2 METHODS PSYCHOLOGISTS USE  33

THE GOALS OF PSYCHOLOGY  34
   Description  34
   Explanation  34
   Prediction  35
   Control  35

REACHING OUR GOALS—SCIENTIFIC THINKING  36
   What Makes it Science?  37
   Defining Our Terms  37
   Careful Measurement  37
   Knowledge of History  38
   Skepticism  38
   Openness—Publishing Our Results  39
   Repetability—Replication  39
   Simplicity—The Principle of Parsimony  40
   Making Clear Predictions—Hypothesis Testing and Falsifiability  40
   Summing Up  41
   Rejecting Pseudoscience  41
   Astrology  42
   Graphology  43
   The Dangers of Pseudoscience  43
   How Science Really Works  44
   The Official Story  44
   What Really Happens?  44

DESCRIBING THE WORLD—DESCRIPTIVE APPROACHES  46
   Naturalistic Observation  46
   Case Studies  48
   SCIENCE OF PSYCHOLOGY JOURNAL: The Man Who Leaned  48

ACADEMIC PSYCHOLOGY TODAY  49
KEY ISSUES IN PSYCHOLOGY—A REVIEW  50
   Psychologists and the Courts
   Psychological Tests  50
   Measuring Achievement and Aptitude  50
   Reliability and Validity  50
   Standardized Tests  50
   Surveys and Interviews  51
   The Accuracy of Survey Results—Telling the Truth  51
   Interviews—“Tell Me About Yourself”  51
   Designing Effective Surveys—“Have You Stopped Beating Your Children?”  51
   Sampling  52

LOOKING FOR CAUSES—DOING EXPERIMENTS  54
   Variables—Things That Vary  54
   Independent Variables  55
   Dependent Variables  55
   Extraneous Variables  55
A Poorly Designed Experiment 56
Keeping the Variables Under Control—The Well-designed Experiment 56
Random Assignment 57
Subject Bias 57
Experimenter Bias 57
Single- and Double-blind Experiments 58
The Placebo Effect 58
Revisiting our Drug and IQ Study 59
Field Experiments 59
Research Ethics 60
Informed Consent 60
Students as Subjects 61
Protection from Harm and Discomfort 61
Confidentiality 61
Deception 61
Debriefing 62
Going Beyond the Data: The Ethics of Research With Animals 62
The Limits of Research 63
Looking for Relationships—Examining Correlations 64
Positive and Negative Correlations 64
False Correlations—The “Full Moon” Effect 66
Correlation and Causation 66
Applications: Evaluating Research in the Popular Media 67
Chapter Summary 68
Important Terms and Concepts 70
Important Names 70

Chapter 3 Biology and the Nervous System 71

Biology and Behavior 72
Genes and Chromosomes 72

The Neuron 73
Parts of a Neuron 73
How Neurons Carry Information 74
The Action Potential 74
The Myelin Sheath 75
The All-Or-None Law 75
The Sodium—Potassium Pump 76
Synaptic Transmission 76
Drugs That Act on the Neuron or Synapse 77

The Organization of the Nervous System 79
A Quick Tour of the Central Nervous System 79
The Peripheral Nervous System 79
The Endocrine System 81

Looking at the Brain 83
Case Studies 83
Lesions 84
Stimulation 84
Electrical Recording 84
Imaging 85

The Subcortex 87
The Spinal Cord 88
The Hindbrain 88
The Midbrain 89
The Forebrain 90

The Cerebral Cortex 92
The Four Lobes 93
The Occipital Lobe 93
The Parietal Lobe 94
The Frontal Lobe 94

Going Beyond the Data: The Evolution of Consciousness 95
The Temporal Lobe 96
The “Silent” Cortex 96
The Two Halves of the Cerebral Cortex 96

Science of Psychology Journal: Harlow’s Motherless Monkeys 117

Chapter 4 Human Development 105

Issues in Developmental Psychology 106
Stages Versus Continuous Development 106
Heredity Versus Environment 107
The Myth of the Normal Child 107
Stability Versus Change 107

Early Development 108
Prenatal Development 108
Conception and the Germinal Stage 108
The Embryonic and Fetal Stages 108
Babies at Risk—Prenatal Period Hazards 109
The Neonatal Reflexes 110
Physical Growth and Motor Development 111
Cephalocaudal and Proximodistal Physical Development 111
Motor Development 112
Cultural Differences in Motor Development 112
Early Talents and Preferences 113
The Looking Chamber 113
Taste, Smell, and Emotion 113
Hearing and Vision 114
Temperament 115
Attachment—Imprinting and Bonding 116
Imprinting 116
Critical Periods, Sensitive Periods 116

Science of Psychology Journal: Harlow’s Motherless Monkeys 117

Going Beyond the Data: Parental Influence 119
Day Care 120
Childhood Problems 121
Applications: Choosing a Day Care Center 121
Normal Childhood Events 122
Taste 178
The Taste Buds 178
Sweet, Salty, Sour, and Bitter—Localization of Tastes on the Tongue 178
Sensitivity to Taste Stimuli 179

THE SOMESTHETIC SENSES—OUR BODY SENSE 180
The Skin Senses 180
Mapping the Skin Senses 180
Temperature 181
Pain 181
Hair Movement 182
Kinesthesia—Inside the Body 183
The Vestibular System—Which Way is Up? 183

GOING BEYOND THE DATA: Phantom Limbs—Sensing Beyond the Body 184

ESP—EXTRA SENSORY PERCEPTION AND PSYCHIC ABILITIES 185
Classifying Psychic Abilities 186
Reasons for Skepticism 186
Lack of Results 186
Fake Psychics 186
Poor Research Methods 187
Statistics, Chance, and Coincidence 187
The Future of ESP 187

CHAPTER SUMMARY 188
IMPORTANT TERMS AND CONCEPTS 190
IMPORTANT NAMES 191

CHAPTER 6 Body Rhythms and Altered States of Consciousness 193

STATES OF CONSCIOUSNESS 194
BODY RHYTHMS 194
Biorhythm Theory—Another Pseudo-Science 194
Circadian Rhythms—The Body's Daily Cycles 195
Jet Lag 196
Shift Work 197
Ultradian and Infradian Rhythms 198

SLEEP AND DREAMING 198
The Evolution of Sleep 198
Restorative Theory 199
Protective Theory 199
Self-Protection—The Safety Hypothesis 199
Energy Conservation Theory 200
The Stages of Sleep 200
Stage 1—The Lightest Sleep 201
Stage 2—Sleep Spindles and K-complexes 201
Stage 3—Delta Waves 201
Stage 4—The Deepest Sleep 202
The Rest of the Night—Cycling Through the Stages 202

REM Sleep—Perchance to Dream 202
Dream Time—The Patterns of REM Sleep 202
The Nature of Dreams—A Difficult Subject 203
Is REM Sleep Another “Stage” of Sleep? —Paradoxical Sleep 203
The Purpose of REM Sleep—What Do Dreams Mean? 204
Dream Theories in Other Cultures 204
Freud's Theory of Dreams 204
Hobson and McCarley’s Activation-Synthesis Model 205
Dreams as Information Processing 206
Dreams and the Arts 206
Dreaming as Problem Solving 206
Sleep Deprivation—Going Without Sleep 207
Randy Gardner, World Record Holder 207
The Effects of Sleep Deprivation 208
National Sleep Debt 208
Sleep Problems 209
Sleepwalking, Sleepwalking 209
Nightmares and Night Terrors 210
Narcolepsy 211
Sleep Apnea 211
Insomnia and Hypersomnia 211
Snoring 212

APPLICATIONS: Dealing With Insomnia 213

HYPNOSIS 214
From Mesmer to Freud—Hypnotism's Checkered History 214
Mesmer’s “Animal Magnetism” 214
James Braid’s “Nervous Sleep” 215
Charcot, Breuer, and Freud 215
Stage Hypnotists—Carrying on the Tradition of Mesmer 215
Research on Hypnosis 216
Stanford Hypnotic Susceptibility Scale (SHSS) 216
Memory Enhancement 217
GOING BEYOND THE DATA: Hypnosis in the Courtroom 217
Pain Relief 218
Feats of Strength, Learning, and Perceptual Ability 218
Posthypnotic Suggestion 218
Age Regression 219

SCIENCE OF PSYCHOLOGY JOURNAL: Obeying Commands Under Hypnosis 219
Hypnosis: Dissociation or Social Phenomenon? 220

DRUGS 221
Psychoactive Drugs—Dependence, Withdrawal, and Tolerance 222
Central Nervous System Stimulants 222
Amphetamines 222
Caffeine 223
Cocaine 223
Nicotine 225

Central Nervous System Depressants 225
Alcohol 225
Barbiturates and Benzodiazepine Tranquilizers 226
Opiates 226
Hallucinogens 227
Marijuana (THC) 227

Modern History of Marijuana 227
Negative Effects of Marijuana 228
Medical Uses of Marijuana 229
How Should Society Treat Drug Use? 229
CHAPTER 7 Learning 235

HOW DO PSYCHOLOGISTS DEFINE LEARNING? 236
“Learning” as a technical term 236
Two important terms—Stimulus and Response 236
Habituation—A simple form of learning 237

PAVLOV AND CLASSICAL CONDITIONING 238
Little Albert and the Rat 239
Classical Extinction 241
Spontaneous Recovery 241
Generalization 241
Discrimination 242
Conditioned Responses in Everyday Life 243
A New Look at Classical Conditioning—Rescorla, Kamin and Garcia 245
Rescorla’s Work 246
Kamin’s Experiments—Blocking 246
Garcia’s Research on Taste Aversion 247
Does This Mean That the Animal Is Thinking? 247

APPLICATIONS: Problem Solving With Classical Conditioning 248
Operant Conditioning 249
Thorndike’s Puzzle Box—The Law of Effect 249
B. F. Skinner 250
Reinforcement and Punishment 251
Comparing Classical and Operant Conditioning 252
Negative Reinforcement—It’s Not Punishment 253
Shaping Behavior 254
Operant Extinction 256
Kinds of Reinforcers 257
Superstitious Behavior 260
Operant Generalization and Discrimination 260
Schedules of Reinforcement 261
Continuous and Intermittent Reinforcement 261
Ratio Schedules 262
Interval Schedules 262
Making Punishment Effective 264
Side Effects and Problems with Punishment 265

CONTROVERSY: Punishment and Self-Esteem 266
Punishment Can Cause Anxiety and Emotional Behavior 267
and Can Lower Self-esteem 267
Punishment Suppresses Behaviors but Doesn’t Eliminate 267
Them 267
Punishment Leads to Escape and Avoidance 267
Behaviors 267
Punishment Provides Poor Feedback 268
Punishment Can Lead to Aggressive Responses 268
Punishment Can Model Violent Behavior 268

GOING BEYOND THE DATA: Can Prisons Work? 267
The Evolution of Conditioning—Biological 268
Predispositions 268

COGNITIVE LEARNING 269
Vicarious Conditioning 269
Cognitive Maps and Latent Learning 270
Modeling—Imitating the Behavior of Others 271

SCIENCE OF PSYCHOLOGY JOURNAL: Modeling Violent Behavior and 272
its Consequences

CHAPTER 8 Memory 277

MEMORY PROCESSES 278
Encoding 278
Storage 278
Physical Storage—Changing the Pattern of Neural 279
Connections
Chemical Storage—Changing the Structure of Specific 279
Molecules
Electrical Storage—Changing the Pattern of Electrical 279
Activity
Retrieval 280
Recall 280
Recognition 280
Relearning 281

A TRADITIONAL MEMORY MODEL 282
Sensory Memory—The Gateway to Memory 283
Short-term Memory—Memory’s Temporary 284
Workspace
Extending Short-term Memory’s Time Limit— 285
Maintenance Rehearsal
Extending Short-term Memory’s Space Limit— 286
Chunking
A new look at Short-Term Memory—Working 286
Memory
Long-term Memory—The Permanent Record 287
Herman Ebbinghaus and the Curve of Forgetting 287
Sir Frederick Bartlett—Reconstructing Memories 287
Marigold Linton—Forgetting Real-Life Personal 288
Events
Moving Information from Short-term memory to Long- 288
term memory

CONTEMPORARY MEMORY MODELS 289
SCIENCE OF PSYCHOLOGY JOURNAL: Bransford and Franks Memory 290
Experiment
Categorizing Long-term memory—Implicit and Explicit 291
Memory

INTERESTING MEMORY PHENOMENA 292
People with Phenomenal Memories 292
Eidetic Imagery 293
The TOT State—Almost Available Memories 294
Flashbulb Memories 294
State-Dependent Learning 295
Memory and Emotion 296
Good Mood—Happy Memories; Bad Mood—Sad 296
Memories
Hormones and Memory 296

WHEN MEMORY FAILS—THEORIES OF FORGETTING 297
Decay Through Disuse 298
Displacement 298
Interference 298
Cue-dependent Forgetting—Loss of Access 299
Some Special Cases 300
Encoding Failure 300
Repression—Motivated Forgetting 301
Retrograde Amnesia—Blocking Consolidation 301
Anterograde Amnesia 302
APPLICATIONS: Memory Improvement 302

THE BRAIN AND MEMORY 305
Engrams 305
Neural Nets 305
The Hippocampus 306
Experimental Evidence—The Hippocampus as a Temporary Processing Site 307
Lateralization—Damage to the Left and Right Hippocampus 307
Infantile amnesia—Do You Remember Your First Birthday? 307
Specific Memory Systems in the Brain 308
Spatial Memory—Remembering Where 308
Temporal Memory—Remembering When 308
Sensory-Perceptual Memory—Remembering What 309
Response Memory—Remembering What to Do 309
Affect Memory—Remembering What We Like and Dislike 310
Language Memory—Remembering Words and Sentences 310

EYEWITNESS TESTIMONY 311
The Fallible Eyewitness 311
Misinformation Effect 311
Confidence—“I’m 100% Percent Sure.” 312
The Nature of the Witness—Victims, Bystanders, and Police Officers 312
Prejudice 312
Misattribution and Creation—Source Amnesia and Imagination 313
Hypnosis as a Memory Aid 313
Children as Eyewitnesses 314
GOING BEYOND THE DATA: The “False Memory” Controversy 315

CHAPTER SUMMARY 317
IMPORTANT TERMS AND CONCEPTS 320
IMPORTANT NAMES 320

CHAPTER 9 Language, Intelligence, and Creativity 321

THE MIRACLE OF LANGUAGE 322
Is It English? —Grammar 322
Watch out For That Symbol—Semantics 324
Please Fry My Nose—Generativity 324
Where Is My Car? —Displacement 325
Ambiguity—What Does That Mean? 325
Phonemes, Morphemes, Words, and Sentences 326
Stages of Language Development 326
Crying 327
Cooing 327
Babbling 327
One-Word Stage 327
Two-Word Grammar 328
More Complex Language 328
Theories of Language Development 328
The Behaviorist view—Language is learned 328
The Nativist View—Chomsky’s LAD 329
Evidence on the Innateness of Language Learning 329
The Cognitive Approach—Interaction and Cognitive Learning 330
WHAT DO WE MEAN BY INTELLIGENCE? 335
Some Traditional Definitions 335
Multiple Intelligences 336
Artificial Intelligence 337
MEASURING INTELLIGENCE 338
Francis Galton—Hereditary Genius 338
Binet and Simon—Intelligence as Success in School 339
The Concept of Mental Age 339
The IQ Formula 340
Lewis Terman’s Work—More Than Translation 340
David Wechsler’s Tests—Verbal and Performance Scores 341
What Intelligence Test Scores Mean 341
Cultural Differences in Intelligence 341
IQ Changes Over Time 343
Misleading Results—Longitudinal vs. Cross-sectional Designs 343
A More Intelligent Generation—Recent Increases in Average IQ 344
EXTREMES OF INTELLIGENCE—INTELLECTUAL GIFTS 345
Gods and Talents 345
Myths About Geniuses—Terman’s Termites 346
EXTREMES OF INTELLIGENCE—INTELLECTUAL HANDICAPS 346
Labeling the Intellectually Handicapped—Scientific Terms and Playground Insults 346
Causes of Retardation 347
THE HERITABILITY OF IQ 348
Adopted Children 349
Thomas Bouchard—The Minnesota Twins 349
SCIENCE OF PSYCHOLOGY JOURNAL: Twin Studies—Looking at how Heredity and Environment Influence IQ 350
Race and IQ—The Bell Curve 351
Environmental Influences 352
THE USES AND ABUSES OF IQ TESTS 352
GOING BEYOND THE DATA: What Should We Do With Intelligence Test Scores? 353
Exhaustion 416
Eustress and Distress 416
Richard Lazarus’ Stress-Appraisal Process 416
Shelley Taylor—The “Tend and Befriend” Response 417

SOURCES OF STRESS—STRESSORS 419
Frustration and Conflict 419
External Frustration 419
Internal Frustration 419
Conflict 419
Life Events 420
Disaster 420
Control and Predictability 420
Change 421
Pressure 421
Boredom 421
Stressful Jobs 421
Acculturative Stress—Immigrants Under Pressure 421
Assimilation 422
Integration 422
Separation 422
Marginalization 422

MEASURING STRESS—THE SOCIAL READJUSTMENT RATING SCALE 422

STRESS REACTIONS 423
The Frustration-aggression Hypothesis 424
Learned Helplessness 424
The Defense Mechanisms 425
Repression 425
Denial 425
Displacement 426
Regression 426
Reaction Formation 426
Rationalization 426
Intellectualization 426
Projection 426
Posttraumatic Stress Disorder (PTSD) 426

STRESS AND HEALTH 428
Psychosomatic Disorders 428
Personality and Heart Disease 429

SCIENCE OF PSYCHOLOGY JOURNAL: Stressed Mice and Flu Virus 429
Stress and Cancer 431
Psychological Responses to Stress 431

GOING BEYOND THE DATA: Control, Health Care, and Aging 432

COPIING WITH STRESS 433
Optimism Versus Pessimism 433
Problem- Versus Emotion-Focused Coping 434
Stress Management Techniques 435
Exercise 435
Anger Management 435
Social Support and Disclosure 436
Biofeedback 436
Meditation 436
Guided Imagery 437

APPLICATIONS: Progressive Muscle Relaxation 437

CULTURE AND STRESS 438

CHAPTER SUMMARY 438
IMPORTANT TERMS AND CONCEPTS 440
IMPORTANT NAMES 441

CHAPTER 12 Personality 443

CHAPTER PREVIEW QUESTIONS 443
WHAT DO PSYCHOLOGISTS MEAN BY “PERSONALITY?” 444
PERSONALITY TYPES 444
Early Type Theories 444
Myers-Briggs Theory—The MBTI 445
Evaluation of Type Theories 446

PERSONALITY TRAITS 446
Gordon Allport’s Trait Theory 447
Raymond B. Cattell’s Trait Profiles 447
Hans Eysenck—Extraverts, Neurotics, and Psychotics 448
The “Big Five” 448
Evaluating the Trait Approach 450
Proving That Traits Exist 450

GOING BEYOND THE DATA: The Evolution of Traits 450

CAN PERSONALITY CHARACTERISTICS BE INHERITED? 451
Thomas, Chess, and Birch—The Temperament of Babies 451
Cross-cultural Variations in Temperament 452
The Minnesota Twins 452

SCIENCE OF PSYCHOLOGY JOURNAL: The Physiology of Shyness 453
Marvin Zuckerman—More Research on the Biology of Temperament 454

APPLICATIONS: Overcoming Shyness 455

PSYCHODYNAMIC THEORIES OF PERSONALITY 457
Freud’s Theory of the Mind 457
The Id—I Want It NOW 458
The Ego—Keeping Things Under Control 459
The Superego—Do This, Don’t Do That 459
Freud’s Psychosexual Stages 460
Neo-Freudian Theories 461
Carl Jung 461
Karen Horney 462
Alfred Adler 462

Evaluation of Psychodynamic Theories 463

BEHAVIORIST/LEARNING THEORIES OF PERSONALITY 464
Early Behaviorist Theories of Personality—Watson and Skinner 465
Social Learning Theory—Rotter, Mischel, and Bandura 466
Julian Rotter—Locus of Control 466
Walter Mischel—Interactionist 467
Albert Bandura—Reciprocal Determinism 468
Evaluation of Behaviorist/Learning Theories 468

HUMANISTIC PERSONALITY THEORIES 469
Self-Actualization—Reaching Your Full Potential 469
Abraham Maslow’s Hierarchy of Needs 469
Carl Rogers—The Self and Self-Concept 470
Evaluation of Humanistic Theories 471
PSEUDOSCIENTIFIC PERSONALITY THEORIES 472
Astrology—What’s Your Sign? 472
Other Pseudoscientific Theories of Personality 472
The Barnum Effect 472

PERSONALITY ASSESSMENT—MEASURING PERSONALITY CHARACTERISTICS 474
Direct Observation 474
Behavioral Assessment—Counting Behaviors 474
Situational Testing 475
Interviews 475
Rating Scales 475
Personality Questionnaires—Objective Tests of Personality 476
Cattell’s 16PF Test 476
The MMPI and MMPI-2 477
The NEO-PI-R—Measuring the Big Five 479
Measuring the Unconscious—Projective Tests of Personality 480
Hermann Rorschach’s Inkblots 480
Henry Murray’s TAT 481
Problems with Projective Tests 481

CHAPTER SUMMARY 481
IMPORTANT TERMS AND CONCEPTS 483
IMPORTANT NAMES 484

CHAPTER 13 Gender and Sexuality 485
MALE, FEMALE, NONE-OF-THE-ABOVE—ASPECTS OF SEX AND GENDER 486
Defining Sex and Gender 486
Chromosomal and Genetic Sex 486
Gonadal Sex 487
Prenatal Hormones and Sex 487
Reproductive Sex 487
External Genitalia and Sex 487
Pubertal Hormones and Sex 488
Assigned Gender 488
Gender Identity 488
Gender Development 489
Gender Roles as Learned 489
Gender Roles as Biologically Determined 490
Evaluation of Gender Development Theories 491

SCIENCE OF PSYCHOLOGY JOURNAL: Sandra Bem’s BSRI 491
Alternative Sex Roles and Sexual Orientation 493
Transsexualism 493
Transvestism 493
Homosexuality and Bisexuality 494
The Search for Biological and Environmental Causes 495
Heterosexism and Homophobia 495
Sex Roles and Culture 497

MEASURING GENDER DIFFERENCES 497
Gender Differences in Sexual Motivation and Behavior 498
GOING BEYOND THE DATA: Gender Differences in Mating Strategy 499
Gender Differences in Ability 500
IQ Scores 500

Emotional Intelligence 500
Emotional Behavior 500
Conclusions About Gender Differences 501

PIONEERS IN HUMAN SEXUALITY RESEARCH 502
Early Research and Speculation 502
Alfred Kinsey 503
Masters and Johnson—The Physiology of Sex 505
The Sexual Response Cycle 505
Sexual Problems 506
Sexual Desire Disorders 506
Sexual Arousal Disorders 507
Orgasmic Disorders 507
Sexual Pain Disorders 508

SEX IN A DANGEROUS WORLD—SEXUALLY TRANSMITTED DISEASES 508
HIV/AIDS 509
Transmission of HIV/AIDS 509
Risk Factors for Contracting HIV/AIDS 509
Treatment for HIV/AIDS 510
Other Sexually Transmitted Diseases 510
APPLICATIONS: Safer Sex 510
Chlamydia 511
HPV 511
Genital Herpes 511
Gonorrhea 511
Syphilis 512
Hepatitis B 512
Pubic Lice 512

CHAPTER SUMMARY 513
IMPORTANT TERMS AND CONCEPTS 514
IMPORTANT NAMES 515

CHAPTER 14 Social Psychology 517
SOCIAL PERCEPTION—EXPLAINING BEHAVIOR 518
Attribution Theory 518
Personal Vs Situational Attributions 518
The Fundamental Attribution Error 519
ATTITUDES AND PERSUASION 519
Attitudes and Behavior 519
SCIENCE OF PSYCHOLOGY JOURNAL: LaPiere’s Research on Attitudes and Behavior 520
Persuasion—Changing Attitudes 521
Communicator Variables 522
Message Variables 522
Audience Variables 523
Cognitive Dissonance Theory 524
Would You Lie for a Dollar? 524
Mrs. Keech and the Guardians 525
Cultural Differences 525

LIKING AND LOVING OTHERS 526
Interpersonal Attraction—Who Do We Like? 526
Familiarity and Proximity 527
Physical Attractiveness 527
Similarity 530
CHAPTER 16 Therapy 601

THE HISTORY OF THERAPY 602

Early Treatment for Pathological Behavior 602
Demonology 602
Hippocrates and Other Ancient Healers 602

GOING BEYOND THE DATA: Trephining 603
Withn Hunts and The Christian Tradition of Punishment for Sin 604
Bedlam—The Birth of the Asylum 604

Modern Therapy 604
Pussin and Pinel—Moral Treatment 605
Pinel’s Legacy—Widespread Reform 605
Kraepelin’s Biogenic Theory—Physical Treatments for Mental Disorders 606
Charcot’s Psychogenic Theory 606
Sigmund Freud and Josef Breuer—The Birth of Psychoanalysis 607

Current Trends in Psychotherapy 607

SOMATIC THERAPIES—FOCUSING ON THE BODY 608

Drug Therapy 608
Antidepressant Drugs—MAOIs, TCAs, and SSRIs 609
Antianxiety Drugs 609
Lithium 610
The Antipsychotics 610
Evaluating Drug Therapy 612
Electroconvulsive Therapy—ECT 614
Psychosurgery 615

THE MEDICAL MODEL, HOSPITALIZATION AND COMMITMENT 616

History of the Medical Model 616
Medical Model Detractors 617
Evaluation of the Medical Model 618
Hospitalization 618
Deinstitutionalization 619
Crime or Illness—The Ethics of Involuntary Commitment 620
Justifying Commitment 620
The Safety Argument 621
Summing Up 622

PSYCHOTHERAPY 623

Psychoanalysis 623
The Primary Goal—Insight 623
Techniques and Terms 623
Evaluating Psychoanalysis 624
Psychoanalysis Today—Brief Psychoanalysis 624

Humanistic Therapy 624
Carl Rogers’—Client-Centered Therapy 625
Fritz Perls’ Gestalt Therapy—Be Here Now 626

Behavior Therapy—Applying Learning Principles 626
Classical Conditioning 627
Operant Conditioning 628
Evaluating Behavior Therapy 629

Cognitive Therapy 630
Albert Ellis—Rational-Emotive Behavior Therapy (REBT) 631
Aaron Beck—Treating Depression With Cognitive Therapy 631

Group and Family Therapy 632
Peer Self-help Groups 632
Family Therapy 632
Couples Therapy 633

Is Psychotherapy Effective? 633

SCIENCE OF PSYCHOLOGY JOURNAL: The Effectiveness of Therapy 634

Why Therapy Helps 635
Culture And Therapy—The Clash of Values 635
Remote Therapy—Seeking Help Without Meeting Your Therapist 636
Self-help Books 636
Computer Therapy 637
Media Therapy 637
Online Therapy 637

APPLICATIONS: Seeking Help—What You Should Know About Seeing A Therapist 638

CHAPTER SUMMARY 639

IMPORTANT TERMS AND CONCEPTS 641

IMPORTANT NAMES 642

References R-1

Index I-1
ROBIN RAYGOR holds a B.A. in English literature and a Ph.D. in experimental psychology from the University of Minnesota. As a graduate student, he received a fellowship in the Center for Research in Human Learning and, after receiving his Ph.D., was granted a National Institutes of Health postdoctoral research fellowship to study eye movements in fluent reading. He is the author or co-author of six books, two of which are in the area of reading and study skills. He is a co-creator, with Garrison Keillor and Gregory W. Bitz, of the original Prairie Home show and is the unacknowledged inventor of the skateboard. He is a teaching professor of psychology at Anoka-Ramsey Community College in Minneapolis, Minnesota and has been recognized a number of times for outstanding teaching. His hobbies include playing jazz saxophone, sailing, gardening, skiing, windsurfing, and canoeing.
It would be impossible to list all of the people who contributed to the creation of this book but I’d like to mention a few who were particularly helpful. I’d especially like to thank Jim Biederman. Jim’s tireless research and excellent suggestions were indispensable. My editorial assistant, Sharon Raygor, kept track of a sea of filed documents and did much of the preliminary editing of the book. I could not have finished it without her. My cat Cosmo also contributed to the development of the book by curling up on a table next to my keyboard and keeping me company during many all-night writing sessions.

Steve Norder, Brad Potthoff, and Carol Wada at Harcourt Brace played an important role in the early development of the manuscript. Editors at other publishing houses, including Catherine Woods, Kerry Baruth, Eric Stano, and Bill Webber, provided vital insights into the textbook publishing business. Sean Wakely and Eve Howard at Wadsworth helped make it possible for the book to be published in its present form.

I’d also like to thank my editor, Judy Wetherington; desktopper/designer, Ronni Burnett; editor, John Wannemacher; sales representative, Jerry Holcomb; and the production team at McGraw-Hill for their help and support in the creation of the book.

I am also indebted to the authors of all the psychology textbooks I’ve used over the years. I gained invaluable information from each of them about how introductory psychology books should be written.

Finally, I’d like to thank the countless students who, with their reactions and comments, taught me how to make the presentation of topics in psychology more interesting and easier to understand.

Robin Raygor, July 2004
After observing students in introductory psychology classes for more years than I’d like to admit, I’m convinced that one of the biggest barriers to success is a lack of information about how to study. Far too many students think that reading is the same as studying and that most of their study time should be spent reading and re-reading the assigned chapters.

Too many students skip the study aids in their textbooks. They say, “I don’t have time for this; I have to study.” They don’t realize that using the study aids is studying. In fact, it is a more efficient method of studying than reading is. Using the study aids will save you time. If you are like most students, your goal for each test is to learn the material well enough to get your desired grade on the test. If you study efficiently, you are guaranteed to reach that goal in less time. You have my promise that if you use the study aids throughout the book, you will get better test scores in less time. In addition, you will have a better understanding of psychology—something that will come in handy both in later classes and in real life. Here is a preview of the book’s study aids and how to use them. Remember that the more active you are in using them, the more they will help you. For example, writing down the answers to the Locking It In quizzes will help you more than just thinking of them.

There is a great deal of scientific research on how to study for a test. The researchers are all in agreement on one point: Simply reading and re-reading the material is one of the worst ways to study (Raygor, Wark, & Raygor, 1982). We remember things best when we study actively. For most students, reading is far too passive an activity to be very effective. Most study skills experts agree that you should spend at least two-thirds of your study time doing something other than reading. With this principle in mind, I’ve tried to put features in this book that encourage you to use effective study techniques. The technique I encourage you to use is called the PAT system (P. Wheeler-Andrews, personal communication, June 24, 2004). The letters stand for the three steps of the process:

- Preview
- Actively Read
- Test yourself.

**PREVIEW**

The first step is to preview the material in each chapter. Studies show that you will get much more out of a chapter if you look it over before reading it. Read the chapter preview questions. Think about them. Can you guess the answers to any of them? Which are most likely to be covered on a test? Which ones are you most interested in? Once these preview questions give you an idea of what the chapter is about, take a quick look through the pages. Look at the headings to see how the chapter is organized. When you get to the end of the chapter, look over the important terms and concepts so they will be more familiar to you when you see them in the chapter.
Feel free to adapt the preview process so that it works best for you. Some students like to start with the important terms and concepts at the end of the chapter. Others like to page through the chapter looking at the headings before looking at the chapter preview questions. Find out what works best for you.

**ACTIVELY READ**

Now that you know what the chapter is about and are familiar with some of the ideas in it, you are ready to read. There are four study aids built into the book to help make your reading more active: the important terms and names, the questions, the Locking It In quizzes, and the chapter summaries.

**Important Terms and Names** In each chapter, the most important terms and names are in *boldface* type. When you see them, you should realize that these are prime candidates for test questions. It is a good bet that most of the questions on a test will have something to do with one of these important terms or names. The important terms are also defined in the margins of the text near where they first appear. Some students like to make flashcards for each important term or name as they go through the chapter with the term or name on one side and the definition or a description on the other. For review purposes, the terms and names are also listed at the end of each chapter.

**Questions**

*Q: What is the second active reading aid?*

The questions in *italics* (like the one above this paragraph) that are spread throughout each chapter are another important active reading aid. Stop and think about each question just as you did with the chapter preview questions. Can you guess the answer? What are the odds that the topic will appear on a test? As you read the section following a question, keep the question in mind and watch for the answer. When you get the answer, stop again. Was it the answer you expected? Do you agree with the answer? What would a test question on this idea look like?

**Locking It In Quizzes** Be sure you stop to take the Locking It In quizzes in every chapter. They not only let you see if you understood the ideas in that section, they also help lock them into your memory system so that they will be there when you take the test. Taking the quizzes is a particularly efficient form of studying. It will save you time in the long run. Be sure not to cheat by looking at the answers printed below the test. Cheating may seem like it will save you time but it won’t. Cheating will slow down the process of learning and will actually lengthen your study time. If you don’t know the answer to a quiz question, go back and find it. Think about how you can remember this idea so you will be ready if it appears on a test.

**Chapter Summary** When you finish the chapter, be sure to read the chapter summary. Everything in it should be familiar to you now. The chapter preview questions are repeated here. Before reading the summary material following each question, test yourself to see if you know the answer to the question. Remember that the chapter summary leaves out a lot of details. Don’t be tempted to read the summary instead of the chapter! If anything in the chapter summary seems unfamiliar to you, go back and re-read that section of the chapter.
**Test Yourself**

You’ve already done part of this step as you took the Locking It In quizzes. Now, it’s time to test yourself again by going through the important terms and names. Make sure you know what there is to know about each one. If any of them seem unfamiliar, go back in the chapter and refresh your memory. If you have made flashcards, use them to test yourself. Use them both ways. Go through them one time with the terms and names showing and see if you know the definitions and descriptions. The next time through, turn them around and see if you can give the term or name based on the definition or description. Don’t stop when you can get them all correct. Doing them over and over helps organize your memories so that they will be available when you take the test. Try testing yourself right now with the following quiz.

<table>
<thead>
<tr>
<th>Quiz</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAT stands for</td>
<td>Preview, Actively read, Test yourself</td>
</tr>
<tr>
<td>Skipping the Locking It In quizzes can save you time</td>
<td>F</td>
</tr>
<tr>
<td>When you know all the important terms and names, you can stop studying</td>
<td>F</td>
</tr>
<tr>
<td>You can often do well on a test just by reading the chapter summaries</td>
<td>F</td>
</tr>
</tbody>
</table>

Answers: 1) Preview, Actively read, Test yourself, 2) F, 3) F, 4) F

---

**Some Final Tips**

Be sure to set aside enough time to study. If you are used to high school tests, you may not be aware of how much more time it takes to study for a test in college. If you are very good at studying, you can expect to spend at least three hours studying each chapter. If your study skills are not that strong, it will take a lot longer—possibly two or three times as long. As your skills improve, (and if you use the techniques described above), you will find that you can spend less time and still get the grades you want.

Find a good place to study. Most people study best in a quiet spot where they do nothing but study. People who study in bed, in front of the television, or with others who are not always serious about studying generally don’t do well on tests.

Don’t be tempted to skip the Applications, Going Beyond the Data, and Science of Psychology Journal sections of each chapter. Many test questions are taken from these sections.

Remember, above all, that studying is a skill like tennis or golf. Anyone can improve his or her study skills. To do so, however, you need to think of it as a skill. Don’t just study the way you always have. Try out the suggestions presented in this section. At the end of each study session, pause a moment and think about how well you were able to concentrate and how much you got out of the session. Try to identify the conditions that help or hinder your studying. Can you study where it’s noisy? Do you study best on a full stomach, and empty stomach, or something in between? Can you study well with others? Does it matter if there is music playing and what kind of music it is? Do you study best at a particular time of day or after a particular activity? Once you find out what works best for you, try to stick to it. Remember that using effective study techniques will not only improve your test scores, it will save you time in the long run.