Contents

PREFACE xii

CHAPTER 1

What Is Psychology? 2

Exploring Psychology 4

Studying the Mind and Behaviour 4 A Quest for Answers to Ancient Questions 5 Early Scientific Approaches to Psychology 7

Contemporary Approaches to Psychology 8

The Behavioural Approach 9
The Psychodynamic Approach 11
The Cognitive Approach 11
The Behavioural Neuroscience Approach 12
The Evolutionary Psychology Approach 13
The Sociocultural Approach 14

CRITICAL REFLECTIONS: Can Humans Really Be Altruistic? 16

A Positive Approach to Psychology 17

The Humanistic Movement 17
The Positive Psychology Movement 17

Psychology's Careers and Areas of Specialization 18

Careers in Psychology 18
Areas of Specialization in Psychology 19

PERSONAL REFLECTIONS: Is Psychology in Your Future? 24

How to Get the Most Out of Psychology 24

Thinking Critically 25 Good Study Habits 27

This Textbook's Pedagogical Tools 30

Review Your Learning Goals 34

Chapter Reflections 35
Chapter Review 35
Connections 37
Core Terms 37

CHAPTER 2

Psychology's Scientific Methods 38

Exploring Psychology as a Science 40

A Scientific Approach 40 Collaboration 41 The Scientific Method 42

PERSONAL REFLECTIONS: Writing Might Improve

Your Health 47

Types of Research 47

Descriptive Research 48 Correlational Research 52 Experimental Research 55

Analyzing and Interpreting Data 58

Descriptive Statistics 58 Inferential Statistics 60

Facing Up to Research Challenges 62

Conducting Ethical Research 62

CRITICAL REFLECTIONS: Is Psychology Value-Free? 65

Minimizing Bias 66

Being a Wise Consumer of Information About Psychology 67

Review Your Learning Goals 70

Chapter Reflections 71
Chapter Review 71
Connections 73
Core Terms 73

CHAPTER 3

Biological Foundations of Behaviour 74

The Nervous System 76

Characteristics 76
How the Brain and Nervous Systems Are Studied 77
Divisions of the Nervous System 80
Pathways in the Nervous System 81

Neurons and Synapses 82

Specialized Cell Structure 82

The Neural Impulse 83 Synapses and Neurotransmitters 85 Neural Networks 88

CRITICAL REFLECTIONS: Studying Neural

Networks with Hybrots 89

Functional Specialization of the Brain 90

Levels of Organization in the Brain 90

The Cerebral Cortex 94
The Cerebral Hemispheres 97
Integration of Function in the Brain 99
Are There "His" and "Hers" Brains? 100

Adaptability of the Brain 102

The Brain's Plasticity 102
The Brain's Capacity for Repair 102
Brain Tissue Implants 103

The Endocrine System 104

Genetic and Evolutionary Blueprints of Behaviour 105

Chromosomes, Genes, and DNA 105 The Study of Genetics 106

PERSONAL REFLECTIONS: The Human Genome

Project and Your Genetic Future 108

Genetics and Evolution 110

Review Your Learning Goals 112

Chapter Reflections 113 Chapter Review 113 Connections 115 Core Terms 115

CHAPTER 4

Human Development 116

Exploring Human Development 118

What Is Development? 118

How Do Nature and Nurture Influence Development? 119

Do Early Experiences Rule Us for Life? 120

Positive Psychology and Optimal Experiences 121

Child Development 122

Prenatal Development 122
Physical Development in Childhood 124
Cognitive Development in Childhood 127
Socioemotional Development in Childhood 134

CRITICAL REFLECTIONS: Are We Spoiling Our Children? 140

Positive Psychology and Children's Development 147

Adolescence 148

Physical Development in Adolescence 149 Cognitive Development in Adolescence 149 Socioemotional Development in Adolescence 151

At-Risk Youth 153

Positive Psychology and Adolescents 154

PERSONAL REFLECTIONS: Developing a Positive Identity 155

Adult Development and Aging 155

Physical Development in Adulthood 156 Cognitive Development in Adulthood 160 Socioemotional Development in Adulthood 163 Positive Psychology and Aging 168 Death and Dying 169

Review Your Learning Goals 170

Chapter Reflections 171 Chapter Review 171 Connections 173 Core Terms 173

CHAPTER 5

Sensation and Perception 174

How We Sense and Perceive the World 176

Detecting, Processing, and Interpreting Experiences 176
Sensory Receptors and the Brain 177
Thresholds 179
Signal Detection Theory 182
Perceiving Sensory Stimuli 183
Sensory Adaptation 185

The Visual System 186

The Visual Stimulus and the Eye 187 Visual Processing in the Brain 191 Colour Vision 193 Perceiving Shape, Depth, Motion, and Constancy 196 Illusions 201

The Auditory System 203

The Nature of Sound and How We Experience It 203 Structures and Functions of the Ear 203 Theories of Hearing 206 Auditory Processing in the Brain 206

Localizing Sound 207 Noise Pollution 207

PERSONAL REFLECTIONS: Love Your Ears 209

Other Senses 209

CRITICAL REFLECTIONS: Should We Believe the Claims of Psychics? 210

The Skin Senses 211
The Chemical Senses 215

The Kinesthetic and Vestibular Senses 217

Perception and Human Factors Psychology 220

Review Your Learning Goals 222

Chapter Reflections 223 Chapter Review 223 Connections 225 Core Terms 225

CHAPTER 6

States of Consciousness 226

The Nature of Consciousness 228

Levels of Awareness 228 Consciousness and the Brain 232

Sleep and Dreams 233

Biological Rhythms and Sleep 233 Why Do We Need Sleep? 236 Sleep Stages 239 Sleep and Disease 242 Sleep Disorders 242

PERSONAL REFLECTIONS: Do You Get Enough Sleep? 243

Dreams 244

Hypnosis 247

The Nature of Hypnosis 248

Explaining Hypnosis 248
Applications of Hypnosis 249

CRITICAL REFLECTIONS: Can We Trust Forensic Hypnosis? 250

Psychoactive Drugs 251

Uses of Psychoactive Drugs 251 Types of Psychoactive Drugs 252 Addiction 259

Review Your Learning Goals 262

Chapter Reflections 263
Chapter Review 263
Connections 265
Core Terms 265

CHAPTER 7

Learning 266

Types of Learning 268

Classical Conditioning 269

Definition of Classical Conditioning 269 Applications of Classical Conditioning 273

Operant Conditioning 276

Definition of Operant Conditioning 276
Skinner's Approach to Operant Conditioning 277
Shaping 278
Generalization, Discrimination, and Extinction 279
Principles of Reinforcement and Punishment 280

CRITICAL REFLECTIONS: Will Sparing the Rod Spoil the Child? 285

Applications of Operant Conditioning 287

Observational Learning 290

PERSONAL REFLECTIONS: Mentors and Mentees 292

Cognitive Factors in Learning 292

Purposive Behaviour 293 Insight Learning 294

Biological and Cultural Factors in Learning 295

Biological Constraints 295 Cultural Constraints 296

Review Your Learning Goals 298

Chapter Reflections 299
Chapter Review 299
Connections 301
Core Terms 301

CHAPTER 8

Memory 302

The Nature of Memory 304

Memory Encoding 305

Attention 305 Levels of Processing 306 Elaboration 307 Imagery 308

Memory Storage 309

Sensory Memory 310 Short-Term Memory 311 Long-Term Memory 313

Memory Retrieval 324

Serial Position Effect 325
Retrieval Cues and the Retrieval Task 325
Retrieval of Autobiographical Memories 328
Retrieval of Emotional Memories 328

CRITICAL REFLECTIONS: Recovered Memories or

False Memories? 331

Eyewitness Testimony 332

Forgetting from Long-Term Memory 334

Encoding Failure 335 Storage Failure 335 Retrieval Failure 336

Memory and Study Strategies 338

Encoding Strategies 338 Storage Strategies 340 Retrieval Strategies 340

PERSONAL REFLECTIONS: Memory and Study Strategies 341

Review Your Learning Goals 342

Chapter Reflections 343
Chapter Review 343
Connections 345
Core Terms 345

CHAPTER 9

Thinking and Language 346

The Cognitive Revolution in Psychology 348

Concept Formation 350

Functions of Concepts 350 Structure of Concepts 352

Problem Solving 353

Steps in Problem Solving 354
Obstacles to Solving Problems 356
Expertise 357

Critical Thinking, Reasoning, and Decision Making 359

Critical Thinking 359

CRITICAL REFLECTIONS: Is Mindful the Opposite of

Intuitive? 361

PERSONAL REFLECTIONS: Sharpening the Saw 362

Reasoning 362

Decision Making 363

Language and Thought 366

The Structure of Language 367
The Link Between Language and Cognition 368
Animal Language? 369

Language Acquisition and Development 370

Biological Influences 371
Environmental Influences 372
Early Development of Language 373
Language and Education 376

Review Your Learning Goals 380

Chapter Reflections 381 Chapter Review 381 Connections 383 Core Terms 383

CHAPTER 10

Intelligence 384

The Nature of Intelligence 386

Intelligence Testing 386

Approaches to Testing 387 Criteria of a Good Test of Intelligence 390 Cultural Bias in Testing 392 The Use and Misuse of Intelligence Tests 392

Neuroscience and Intelligence 394

Head and Brain Size 394
Information Processing Speed 394
Electrical Activity in the Brain 395
Energy Consumption in the Brain 395

Theories of Multiple Intelligences 396

Factor Analysis, Two-Factor Theory, and Multiple-Factor
Theory 396
Gardner's Theory of Eight Intelligences 397
Sternberg's Triarchic Theory 399
Emotional Intelligence 400
Evaluating the Multiple-Intelligences Approach 400

The Extremes of Intelligence and Creativity 402

Mental Retardation 402 Giftedness 403 Creativity 405

PERSONAL REFLECTIONS: How Creative Is Your Thinking? 408

The Influence of Heredity and Environment 408

Genetic Influences 409 Environmental Influences 409

CRITICAL REFLECTIONS: Are Television and Computer Games

Making Us Smarter? 411

Genetics–Environment Interactions 412 Group Influences 412

Review Your Learning Goals 416

Chapter Reflections 417 Chapter Review 417 Connections 419 Core Terms 419

CHAPTER 11

Motivation and Emotion 420

Approaches to Motivation 422

The Evolutionary Approach 422 Drive Reduction Theory 422 Optimum Arousal Theory 423 The Cognitive Approach 424 Issues in Motivation 427

Hunger 427

The Biology of Hunger 427 Obesity and Eating Behaviour 430 Dieting 432 Eating Disorders 433

Sexuality 434

The Biology of Sex 434 Cognitive and Sensory/Perceptual Factors 436 Cultural Factors 437

Psychosexual Dysfunctions 437 Sexual Behaviour and Orientation 438

Social Cognitive Motives 442

Achievement 442

PERSONAL REFLECTIONS: How Goal Directed Are You? 445

Affiliation 448 Well-Being 449

Emotion 450

The Biology of Emotion 451 Cognitive Factors 455

CRITICAL REFLECTIONS: What Difference Does It Make If

You Can't Name Your Emotions? 457

Behavioural Factors 457 Sociocultural Factors 458 Classifying Emotions 460

Review Your Learning Goals 466

Chapter Reflection 467
Chapter Review 467
Connections 469
Core Terms 469

CHAPTER 12

Personality 470

Theories of Personality 472

Psychodynamic Perspectives 473

Freud's Psychoanalytic Theory 473 Psychodynamic Dissenters and Revisionists 477 Evaluating Psychodynamic Perspectives 479

Behavioural and Social Cognitive Perspectives 480

Skinner's Behaviourism 481 Bandura's Social Cognitive Theory 481 Evaluating the Behavioural and Social Cognitive Perspectives 485

Humanistic Perspectives 485

Rogers's Approach 486 Maslow's Approach 487 Self-Esteem 488 Evaluating Humanistic Perspectives 490

Trait Perspectives 490

Trait Theories 491

The Big Five Personality Factors 492

PERSONAL REFLECTIONS: Are You Extraverted or

Introverted? 493

Trait-Situation Interaction 494 Evaluating Trait Perspectives 494

Personality Assessment 495

Projective Tests 496

CRITICAL REFLECTIONS: Is the Rorschach Clinically Useful? 497

Self-Report Tests 498
Behavioural and Cognitive Assessment 501
Assessment in the Selection of Employees 502

Review Your Learning Goals 504

Chapter Reflections 505 Chapter Review 505 Connections 507 Core Terms 507

CHAPTER 13

Psychological Disorders 508

Understanding Psychological Disorders 510

Defining Abnormal Behaviour 510 Theoretical Approaches to Psychological Disorders 512 Classifying Abnormal Behaviour 514

CRITICAL REFLECTIONS: Are Psychological Disorders a Myth? 517

Anxiety Disorders 518

Generalized Anxiety Disorder 518
Panic Disorder 519
Phobic Disorders 520
Obsessive-Compulsive Disorder 522
Post-Traumatic Stress Disorder 522

Dissociative Disorders 526

Dissociative Amnesia and Fugue 526 Dissociative Identity Disorder 527

Mood Disorders 528

Depressive Disorders 529

PERSONAL REFLECTIONS: Are You Depressed? 530

Bipolar Disorder 531 Causes of Mood Disorders 531 Suicide 537

Schizophrenia 539

Types of Schizophrenia 540 Causes of Schizophrenia 542

Personality Disorders 544

Odd/Eccentric Cluster 545
Dramatic/Emotionally Problematic Cluster 545
Chronic-Fearfulness/Avoidant Cluster 546

Review Your Learning Goals 548

Chapter Reflections 549
Chapter Review 549
Connections 551
Core Terms 551

CHAPTER 14

Therapies 552

Biological Therapies 554

Drug Therapy 554 Electroconvulsive Therapy 558 Psychosurgery 559 **Psychotherapies 559**

Psychodynamic Therapies 560 Humanistic Therapies 563 Behaviour Therapies 565 Cognitive Therapies 570

Sociocultural Approaches and Issues in Treatment 575

Group Therapy 576
Family and Couples Therapy 576
Self-Help Support Groups 578
Community Mental Health 578
Cultural Perspectives 580

The Effectiveness of Psychotherapy 581

Research on the Effectiveness of Psychotherapy 581 Common Themes in Psychotherapy 583 Integrative Therapies 583
Funding and Finding Therapy 584
Mental Health Professionals 585

Guidelines for Seeking Professional Help 586

PERSONAL REFLECTIONS: Evaluating Whether You

Need a Therapist 587

Review Your Learning Goals 588

Chapter Reflections 589 Chapter Review 589 Connections 591 Core Terms 591

CHAPTER 15

Stress, Coping, and Health 592

Health Psychology and Behavioural Medicine 594

Stress and Its Sources 595

Personality Factors 596 Environmental Factors 598 Sociocultural Factors 601

Stress Responses 603

General Adaptation Syndrome 603 Fight or Flight, Tend and Befriend 605 Cognitive Appraisal 605

Stress and Illness 607

Stress and the Immune System 607 Stress and Cardiovascular Disease 608 Stress and Cancer 609 Positive Emotions, Illness, and Health 610

CRITICAL REFLECTIONS: Positive Emotions and Health:

Placebo Effect or Meaning Response? 611

Coping Strategies 612

Problem-Focused and Emotion-Focused Coping 612 Optimism and Positive Thinking 613 Social Support 615 Assertive Behaviour 616

PERSONAL REFLECTIONS: Dealing with Conflict 617

Religion 618 Stress Management Programs 619

Healthful Living 621

Exercising Regularly 621
Eating Healthily 623
Quitting Smoking 625
Making Sound Sexual Decisions 626

Review Your Learning Goals 630

Chapter Reflections 631 Chapter Review 631 Connections 633 Core Terms 633

CHAPTER 16

Social Psychology 634

Social Thinking 636

Attribution 636 Social Perception 638 Attitudes 642

Social Influence 646

Conformity and Obedience 647 Group Influence 651 Leadership 655

Intergroup Relations 656

Group Identity: Us Versus Them 656 Prejudice 659 Ways to Improve Interethnic Relations 662

Social Interaction 664

Aggression 664

GLOSSARY G1–G11 REFERENCES R1–R52 CREDITS C1–C5 NAME INDEX I1–I14 SUBJECT INDEX I15–I25 **CRITICAL REFLECTIONS:** Does Pornography Lead to

Violence Against Women? 669

Altruism 671

Relationships 674

Attraction 674 Love 676

PERSONAL REFLECTIONS: What Is Your Love Like? 678

Relationships and Gender 678 Loneliness 679

Review Your Learning Goals 682

Chapter Reflections 683 Chapter Review 683 Connections 685 Core Terms 685