



Contents

A Personal Note to Students *xiv*

Preface for Instructors *xv*

PART I

THEORY AND RESEARCH IN HUMAN DEVELOPMENT



chapter 1 History, Theory, and Research Strategies 2

A Scientific, Applied, and Interdisciplinary Field 5

Basic Issues 5

- Continuous or Discontinuous Development? 6
- One Course of Development or Many? 6
- Relative Influence of Nature and Nurture? 7

The Lifespan Perspective: A Balanced Point of View 7

- Development Is Lifelong 8
- Development Is Multidimensional and Multidirectional 8
- Development Is Plastic 9
- Development Is Influenced by Multiple, Interacting Forces 9

■ **BIOLOGY AND ENVIRONMENT** *Resilience* 10

■ **CULTURAL INFLUENCES** *The Baby Boomers Reshape the Life Course* 12

Scientific Beginnings 12

- Darwin: Forefather of Scientific Child Study 12
- The Normative Period 14
- The Mental Testing Movement 14

Mid-Twentieth-Century Theories 14

- The Psychoanalytic Perspective 14
- Behaviorism and Social Learning Theory 16
- Piaget's Cognitive-Developmental Theory 17

Recent Theoretical Perspectives 19

- Information Processing 19
- Developmental Neuroscience 20
- Ethology and Evolutionary Developmental Psychology 21
- Vygotsky's Sociocultural Theory 22
- Ecological Systems Theory 23

■ **SOCIAL ISSUES: HEALTH** *Family Chaos Undermines Parents' and Children's Well-Being* 25

Comparing and Evaluating Theories 26

Studying Development 26

- Common Research Methods 28
- General Research Designs 31

■ **CULTURAL INFLUENCES** *Immigrant Youths: Adapting to a New Land* 32

- Designs for Studying Development 35

Ethics in Lifespan Research 37

Summary 39

Important Terms and Concepts 41

PART II

FOUNDATIONS OF DEVELOPMENT



chapter 2 Genetic and Environmental Foundations 42

Genetic Foundations 44

- The Genetic Code 44
- The Sex Cells 44
- Boy or Girl? 45
- Multiple Offspring 45
- Patterns of Gene–Gene Interactions 46
- Chromosomal Abnormalities 50

Reproductive Choices 51

- Genetic Counseling 51

■ **SOCIAL ISSUES: HEALTH** *The Pros and Cons of Reproductive Technologies* 52

- Prenatal Diagnosis and Fetal Medicine 53
- Adoption 55

Environmental Contexts for Development 56

- The Family 57
- Socioeconomic Status and Family Functioning 58
- Poverty 58
- Affluence 60
- Beyond the Family: Neighborhoods and Schools 60
- The Cultural Context 62

■ **CULTURAL INFLUENCES** *The African-American Extended Family* 63

Understanding the Relationship Between Heredity and Environment 66

- The Question, "How Much?" 67
- The Question, "How?" 68

■ **BIOLOGY AND ENVIRONMENT** *The Tutsi Genocide and Epigenetic Transmission of Maternal Stress to Children* 71

Summary 72

Important Terms and Concepts 73



chapter 3 Prenatal Development, Birth, and the Newborn Baby 74

Prenatal Development 76

- Conception 76
- Germinal Period 76
- Period of the Embryo 78
- Period of the Fetus 79

Prenatal Environmental Influences 81

- Teratogens 81
- Other Maternal Factors 88

■ **SOCIAL ISSUES: HEALTH** *The Nurse–Family Partnership: Reducing Maternal Stress and Enhancing Child Development Through Social Support* 90

The Importance of Prenatal Health Care 91

Childbirth 92

The Stages of Childbirth 93

The Baby's Adaptation to Labor and Delivery 94

The Newborn Baby's Appearance 94

Assessing the Newborn's Physical Condition: The Apgar Scale 94

Approaches to Childbirth 95

Natural, or Prepared, Childbirth 95

Home Delivery 96

Medical Interventions 96

Fetal Monitoring 96

Labor and Delivery Medication 97

Cesarean Delivery 97

Preterm and Low-Birth-Weight Infants 97

Preterm versus Small-for-Date Infants 98

Consequences for Caregiving 98

Interventions for Preterm Infants 99

The Newborn Baby's Capacities 101

Reflexes 101

■ **SOCIAL ISSUES: HEALTH** *A Cross-National Perspective on Health Care and Other Policies for Parents and Newborn Babies* 102

States of Arousal 104

■ **BIOLOGY AND ENVIRONMENT** *The Mysterious Tragedy of Sudden Infant Death Syndrome* 106

Sensory Capacities 108

Neonatal Behavioral Assessment 110

Adjusting to the New Family Unit 111

Summary 111

Important Terms and Concepts 113

PART III

INFANCY AND TODDLERHOOD: THE FIRST TWO YEARS



chapter 4

Physical Development in Infancy and Toddlerhood 114

Body Growth 116

Changes in Body Size and Muscle–Fat Makeup 116

Changes in Body Proportions 117

Individual and Group Differences 117

Brain Development 117

Development of Neurons 117

Measures of Brain Functioning 119

Development of the Cerebral Cortex 120

Sensitive Periods in Brain Development 121

■ **BIOLOGY AND ENVIRONMENT** *Brain Plasticity: Insights from Research on Brain-Damaged Children and Adults* 122

Changing States of Arousal 125

■ **CULTURAL INFLUENCES** *Cultural Variation in Infant Sleeping Arrangements* 126

Influences on Early Physical Growth 127

Heredity 127

Nutrition 127

Malnutrition 129

Learning Capacities 130

Classical Conditioning 130

Operant Conditioning 131

Habituation 131

Imitation 132

Motor Development 133

The Sequence of Motor Development 134

Motor Skills as Dynamic Systems 135

Fine-Motor Development: Reaching and Grasping 136

Perceptual Development 137

Hearing 138

■ **BIOLOGY AND ENVIRONMENT** *“Tuning In” to Familiar Speech, Faces, and Music: A Sensitive Period for Culture-Specific Learning* 139

Vision 140

Intermodal Perception 143

Understanding Perceptual Development 144

Summary 146

Important Terms and Concepts 147



chapter 5

Cognitive Development in Infancy and Toddlerhood 148

Piaget's Cognitive-Developmental Theory 150

Piaget's Ideas About Cognitive Change 150

The Sensorimotor Stage 151

Follow-Up Research on Infant Cognitive Development 153

Evaluation of the Sensorimotor Stage 156

■ **SOCIAL ISSUES: EDUCATION** *Baby Learning from TV and Video: The Video Deficit Effect* 157

Information Processing 160

A General Model of Information Processing 160

Attention 161

Memory 162

Categorization 163

■ **BIOLOGY AND ENVIRONMENT** *Infantile Amnesia* 164

Evaluation of Information-Processing Findings 166

The Social Context of Early Cognitive Development 166

Individual Differences in Early Mental Development 167

Infant and Toddler Intelligence Tests 167

■ **CULTURAL INFLUENCES** *Social Origins of Make-Believe Play* 168

Early Environment and Mental Development 169

Early Intervention for At-Risk Infants and Toddlers 172

Language Development	173
Theories of Language Development	174
Getting Ready to Talk	175
First Words	176
The Two-Word Utterance Phase	177
Individual and Cultural Differences	177
Supporting Early Language Development	178
Summary	180
Important Terms and Concepts	181



chapter 6

Emotional and Social Development in Infancy and Toddlerhood 182

Erikson's Theory of Infant and Toddler Personality	184
Basic Trust versus Mistrust	184
Autonomy versus Shame and Doubt	184
Emotional Development	184
Basic Emotions	185
BIOLOGY AND ENVIRONMENT <i>Parental Depression and Child Development</i>	187
Understanding and Responding to the Emotions of Others	188
Emergence of Self-Conscious Emotions	188
Beginnings of Emotional Self-Regulation	189
Temperament and Development	190
The Structure of Temperament	190
Measuring Temperament	191
Stability of Temperament	191
BIOLOGY AND ENVIRONMENT <i>Development of Shyness and Sociability</i>	192
Genetic and Environmental Influences	193
Temperament and Child Rearing: The Goodness-of-Fit Model	195
Development of Attachment	196
Bowlby's Ethological Theory	196
Measuring the Security of Attachment	197
Stability of Attachment	198
Cultural Variations	199
Factors That Affect Attachment Security	199
SOCIAL ISSUES: HEALTH <i>Does Child Care in Infancy Threaten Attachment Security and Later Adjustment?</i>	202
Multiple Attachments	203
CULTURAL INFLUENCES <i>The Role of Fathers' Involvement in Children's Development</i>	205
Attachment and Later Development	205
Self-Development	206
Self-Awareness	206
Categorizing the Self	208
Self-Control	208
Summary	210
Important Terms and Concepts	211
MILESTONES <i>Development in Infancy and Toddlerhood</i>	212

PART IV

EARLY CHILDHOOD: TWO TO SIX YEARS




chapter 7

Physical and Cognitive Development in Early Childhood 214

PHYSICAL DEVELOPMENT	216
A Changing Body and Brain	216
Skeletal Growth	217
Brain Development	217
Influences on Physical Growth and Health	219
Heredity and Hormones	219
Nutrition	219
Infectious Disease	220
Childhood Injuries	221
Motor Development	222
Gross-Motor Development	223
Fine-Motor Development	224
Individual Differences in Motor Skills	225
CULTURAL INFLUENCES <i>Why Are Children from Asian Cultures Advanced in Drawing Skills?</i>	226
COGNITIVE DEVELOPMENT	227
Piaget's Theory: The Preoperational Stage	227
Advances in Mental Representation	227
Make-Believe Play	227
Symbol-Real-World Relations	228
Limitations of Preoperational Thought	229
Follow-Up Research on Preoperational Thought	231
Evaluation of the Preoperational Stage	232
Piaget and Education	233
Vygotsky's Sociocultural Theory	234
Private Speech	234
Social Origins of Early Childhood Cognition	235
Vygotsky and Early Childhood Education	235
Evaluation of Vygotsky's Theory	236
Information Processing	236
Executive Function	236
CULTURAL INFLUENCES <i>Children in Village and Tribal Cultures Observe and Participate in Adult Work</i>	237
Memory	239
The Young Child's Theory of Mind	241
Early Childhood Literacy	242
BIOLOGY AND ENVIRONMENT <i>Autism and Theory of Mind</i>	243
Early Childhood Mathematical Reasoning	244
Individual Differences in Mental Development	245
Home Environment and Mental Development	245
Preschool, Kindergarten, and Child Care	246
Educational Media	248

Language Development	249
Vocabulary	250
Grammar	251
Conversation	252
Supporting Language Development in Early Childhood	252
Summary	253
Important Terms and Concepts	255



chapter 8

Emotional and Social Development in Early Childhood 256

Erikson's Theory: Initiative versus Guilt	258
Self-Understanding	258
Foundations of Self-Concept	258
■ CULTURAL INFLUENCES <i>Cultural Variations in Personal Storytelling: Implications for Early Self-Concept</i>	259
Emergence of Self-Esteem	260
Emotional Development	260
Understanding Emotion	260
Emotional Self-Regulation	261
Self-Conscious Emotions	262
Empathy and Sympathy	262
Peer Relations	263
Advances in Peer Sociability	263
First Friendships	265
Peer Relations and School Readiness	266
Parental Influences on Early Peer Relations	266
Foundations of Morality and Aggression	267
The Psychoanalytic Perspective	267
Social Learning Theory	268
■ CULTURAL INFLUENCES <i>Ethnic Differences in the Consequences of Physical Punishment</i>	270
The Cognitive-Developmental Perspective	271
The Other Side of Morality: Development of Aggression	272
Gender Typing	276
Gender-Stereotyped Beliefs and Behavior	276
Biological Influences on Gender Typing	277
Environmental Influences on Gender Typing	277
Gender Identity	279
Reducing Gender Stereotyping in Young Children	280
■ BIOLOGY AND ENVIRONMENT <i>Transgender Children</i>	281
Child Rearing and Emotional and Social Development	282
Styles of Child Rearing	282
What Makes Authoritative Child Rearing Effective?	283
Cultural Variations	284
Child Maltreatment	285
Summary	288
Important Terms and Concepts	289

MILESTONES *Development in Early Childhood* 290

PART V

MIDDLE CHILDHOOD: SIX TO ELEVEN YEARS



chapter 9

Physical and Cognitive Development in Middle Childhood 292

PHYSICAL DEVELOPMENT	294
Body Growth	294
Common Health Problems	295
Nutrition	295
Overweight and Obesity	295
■ SOCIAL ISSUES: HEALTH <i>Family Stressors and Childhood Obesity</i>	296
Vision and Hearing	298
Illnesses	298
Unintentional Injuries	298
Motor Development and Play	299
Gross-Motor Development	299
Fine-Motor Development	300
Sex Differences	301
Games with Rules	301
Adult-Organized Youth Sports	301
Shadows of Our Evolutionary Past	302
Physical Education	303
COGNITIVE DEVELOPMENT	303
Piaget's Theory: The Concrete Operational Stage	304
Concrete Operational Thought	304
Limitations of Concrete Operational Thought	306
Follow-Up Research on Concrete Operational Thought	306
Evaluation of the Concrete Operational Stage	307
Information Processing	307
Executive Function	307
■ BIOLOGY AND ENVIRONMENT <i>Children with Attention-Deficit Hyperactivity Disorder</i>	309
Memory Strategies	310
Knowledge and Memory	311
Culture, Schooling, and Memory Strategies	311
The School-Age Child's Theory of Mind	311
Cognitive Self-Regulation	312
Applications of Information Processing to Academic Learning	313
Individual Differences in Mental Development	314
Defining and Measuring Intelligence	314
Other Efforts to Define Intelligence	315
Explaining Individual and Group Differences in IQ	317
■ CULTURAL INFLUENCES <i>The Flynn Effect: Massive Generational Gains in IQ</i>	319
Language Development	321
Vocabulary and Grammar	321
Pragmatics	322
Learning Two Languages	323

- Learning in School** 324
 Educational Philosophies 324
 Teacher–Student Interaction and Grouping Practices 326
 Teaching Children with Special Needs 326
- **SOCIAL ISSUES: EDUCATION** *Magnet Schools: Equal Access to High-Quality Education* 327
 How Well Educated Are U.S. Children? 329
- Summary** 331
- Important Terms and Concepts** 333



chapter 10

Emotional and Social Development in Middle Childhood 334

- Erikson’s Theory: Industry versus Inferiority** 336
- Self-Understanding** 336
 Self-Concept 336
 Self-Esteem 337
 Influences on Self-Esteem 337
- Emotional Development** 341
 Self-Conscious Emotions 341
 Emotional Understanding 341
 Emotional Self-Regulation 342
- Moral Development** 342
 Moral and Social-Conventional Understanding 343
 Understanding Individual Rights 343
 Culture and Moral Understanding 344
 Understanding Diversity and Inequality 344
- Peer Relations** 345
 Peer Groups 346
 Friendships 346
 Peer Acceptance 347
- **BIOLOGY AND ENVIRONMENT** *Bullies and Their Victims* 349
- Gender Typing** 350
 Gender-Stereotyped Beliefs 350
 Gender Identity and Behavior 350
- Family Influences** 351
 Parent–Child Relationships 351
 Siblings 352
 Only Children 352
 Divorce 353
 Blended Families 355
 Maternal Employment and Dual-Earner Families 356
- Some Common Problems of Development** 358
 Fears and Anxieties 358
 Child Sexual Abuse 358
- **CULTURAL INFLUENCES** *Impact of Ethnic and Political Violence on Children* 359
 Fostering Resilience in Middle Childhood 360
- **SOCIAL ISSUES: HEALTH** *Children’s Eyewitness Testimony* 361
- Summary** 362
- Important Terms and Concepts** 363

MILESTONES *Development in Middle Childhood* 364

PART VI

ADOLESCENCE: THE TRANSITION TO ADULTHOOD



chapter 11

Physical and Cognitive Development in Adolescence 366


- PHYSICAL DEVELOPMENT** 368
- Conceptions of Adolescence** 368
 The Biological Perspective 368
 The Social Perspective 368
 A Balanced Point of View 368
- Puberty: The Physical Transition to Adulthood** 368
 Hormonal Changes 369
 Body Growth 369
 Motor Development and Physical Activity 370
 Sexual Maturation 371
 Individual Differences in Pubertal Growth 372
 Brain Development 373
 Changing States of Arousal 374
- The Psychological Impact of Pubertal Events** 374
 Reactions to Pubertal Changes 374
 Pubertal Change, Emotion, and Social Behavior 375
 Pubertal Timing 376
- Health Issues** 378
 Nutritional Needs 378
 Eating Disorders 378
 Sexuality 379
- **SOCIAL ISSUES: HEALTH** *Lesbian, Gay, and Bisexual Youths: Coming Out to Oneself and Others* 382
 Sexually Transmitted Infections 383
 Adolescent Pregnancy and Parenthood 384
 Substance Use and Abuse 386
- COGNITIVE DEVELOPMENT** 388
- Piaget’s Theory: The Formal Operational Stage** 388
 Hypothetico-Deductive Reasoning 388
 Propositional Thought 389
 Follow-Up Research on Formal Operational Thought 389
- An Information-Processing View of Adolescent Cognitive Development** 390
 Scientific Reasoning: Coordinating Theory with Evidence 391
 How Scientific Reasoning Develops 391
- Consequences of Adolescent Cognitive Changes** 392
 Self-Consciousness and Self-Focusing 392
 Idealism and Criticism 393
 Decision Making 393
- Sex Differences in Mental Abilities** 394
 Verbal Abilities 394
 Mathematical Abilities 395
- **BIOLOGY AND ENVIRONMENT** *Sex Differences in Spatial Abilities* 396

Learning in School 396
 School Transitions 396
 Academic Achievement 398

■ **SOCIAL ISSUES: EDUCATION** *Media Multitasking Disrupts Learning* 400
 Dropping Out 402

Summary 403

Important Terms and Concepts 405

 **chapter 12**
Emotional and Social Development in Adolescence 406

Erikson’s Theory: Identity versus Role Confusion 408

Self-Understanding 408
 Changes in Self-Concept 408
 Changes in Self-Esteem 408
 Paths to Identity 409
 Identity Status and Psychological Well-Being 410
 Influences on Identity Development 411

■ **CULTURAL INFLUENCES** *Identity Development Among Ethnic Minority Adolescents* 412

Moral Development 413
 Kohlberg’s Theory of Moral Development 413
 Are There Sex Differences in Moral Reasoning? 415
 Coordinating Moral, Social-Conventional, and Personal Concerns 416
 Influences on Moral Reasoning 416
 Moral Reasoning and Behavior 417
 Religious Involvement and Moral Development 418

■ **SOCIAL ISSUES: EDUCATION** *Development of Civic Engagement* 419
 Further Challenges to Kohlberg’s Theory 420

The Family 420
 Parent–Adolescent Relationships 420
 Family Circumstances 422
 Siblings 422

Peer Relations 422
 Friendships 422
 Cliques and Crowds 425
 Dating 426

Problems of Development 427
 Depression 427
 Suicide 428
 Delinquency 429

■ **BIOLOGY AND ENVIRONMENT** *Two Routes to Adolescent Delinquency* 431

Summary 432

Important Terms and Concepts 433

MILESTONES *Development in Adolescence* 434

PART VII
EARLY ADULTHOOD

 **chapter 13**
Physical and Cognitive Development in Early Adulthood 436

PHYSICAL DEVELOPMENT 438

Biological Aging Is Under Way in Early Adulthood 438
 Aging at the Level of DNA and Body Cells 438

■ **BIOLOGY AND ENVIRONMENT** *Telomere Length: A Marker of the Impact of Life Circumstances on Biological Aging* 439
 Aging at the Level of Tissues and Organs 440

Physical Changes 440
 Cardiovascular and Respiratory Systems 440
 Motor Performance 442
 Immune System 443
 Reproductive Capacity 443

Health and Fitness 444
 Nutrition 445
 Exercise 447
 Substance Abuse 448
 Sexuality 450
 Psychological Stress 455

COGNITIVE DEVELOPMENT 456

Changes in the Structure of Thought 456
 Epistemic Cognition 456
 Pragmatic Thought and Cognitive-Affective Complexity 458

Expertise and Creativity 458

The College Experience 460
 Psychological Impact of Attending College 460
 Dropping Out 460

■ **SOCIAL ISSUES: EDUCATION** *How Important Is Academic Engagement in College for Successful Transition to the Labor Market?* 461

Vocational Choice 462
 Selecting a Vocation 462
 Factors Influencing Vocational Choice 462

■ **CULTURAL INFLUENCES** *Masculinity at Work: Men Who Choose Nontraditional Careers* 464
 Vocational Preparation of Non-College-Bound Young Adults 465

Summary 466

Important Terms and Concepts 467

 **chapter 14**
Emotional and Social Development in Early Adulthood 468

A Gradual Transition: Emerging Adulthood 470
 Unprecedented Exploration 470
 Cultural Change, Cultural Variation, and Emerging Adulthood 473
 Risk and Resilience in Emerging Adulthood 473

■ **CULTURAL INFLUENCES** *Is Emerging Adulthood Really a Distinct Stage of Development?* 474

Erikson's Theory: Intimacy versus Isolation 476

Other Theories of Adult Psychosocial Development 477

Levinson's Seasons of Life 477

Vaillant's Adaptation to Life 477

The Social Clock 478

Close Relationships 478

Romantic Love 479

■ **SOCIAL ISSUES: HEALTH** *Childhood Attachment Patterns and Adult Romantic Relationships* 480

Friendships 482

The Family Life Cycle 484

Leaving Home 484

Joining of Families in Marriage 485

■ **SOCIAL ISSUES: HEALTH** *Partner Abuse* 488

Parenthood 489

The Diversity of Adult Lifestyles 492

Singlehood 493

Cohabitation 494

Childlessness 495

Divorce and Remarriage 495

Varied Styles of Parenthood 496

Career Development 498

Establishing a Career 498

Women and Ethnic Minorities 499

Combining Work and Family 500

Summary 502

Important Terms and Concepts 503

MILESTONES *Development in Early Adulthood* 504

PART VIII

MIDDLE ADULTHOOD



chapter 15

Physical and Cognitive Development in Middle Adulthood 506

PHYSICAL DEVELOPMENT 508

Physical Changes 508

Vision 508

Hearing 509

Skin 509

Muscle–Fat Makeup 510

Skeleton 510

Reproductive System 510

■ **BIOLOGY AND ENVIRONMENT** *Anti-Aging Effects of Dietary Calorie Restriction* 511

■ **CULTURAL INFLUENCES** *Menopause as a Biocultural Event* 514

Health and Fitness 514

Sexuality 515

Illness and Disability 515

Hostility and Anger 519

Adapting to the Physical Challenges of Midlife 520

Stress Management 520

Exercise 521

Hardiness 522

Gender and Aging: A Double Standard 523

■ **SOCIAL ISSUES: HEALTH** *The Silver Lining in Life's Adversities* 523

COGNITIVE DEVELOPMENT 524

Changes in Mental Abilities 524

Cohort Effects 524

Crystallized and Fluid Intelligence 525

Individual and Group Differences 526

Information Processing 527

Speed of Processing 527

Executive Function 528

Memory Strategies 529

Practical Problem Solving and Expertise 530

Creativity 530

Information Processing in Context 531

Vocational Life and Cognitive Development 531

Adult Learners: Becoming a Student in Midlife 532

Characteristics of Returning Students 532

Supporting Returning Students 532

Summary 534

Important Terms and Concepts 535



chapter 16

Emotional and Social Development in Middle Adulthood 536

Erikson's Theory: Generativity versus Stagnation 538

■ **SOCIAL ISSUES: HEALTH** *Generative Adults Tell Their Life Stories* 540

Other Theories of Psychosocial Development in Midlife 541

Levinson's Seasons of Life 541

Vaillant's Adaptation to Life 542

Is There a Midlife Crisis? 542

Stage or Life Events Approach 543

Stability and Change in Self-Concept and Personality 543

Possible Selves 544

Self-Acceptance, Autonomy, and Environmental Mastery 544

Coping with Daily Stressors 545

■ **BIOLOGY AND ENVIRONMENT** *What Factors Promote Psychological Well-Being in Midlife?* 546

Gender Identity 546

Individual Differences in Personality Traits 548

Relationships at Midlife 549
 Marriage and Divorce 549
 Changing Parent–Child Relationships 551
 Grandparenthood 552
 Middle-Aged Children and Their Aging Parents 554

■ **SOCIAL ISSUES: HEALTH** *Grandparents Rearing Grandchildren: The Skipped-Generation Family* 554
 Siblings 557
 Friendships 558

Vocational Life 559
 Job Satisfaction 560
 Career Development 560
 Career Change at Midlife 562
 Unemployment 562
 Planning for Retirement 562

Summary 564

Important Terms and Concepts 565

MILESTONES *Development in Middle Adulthood* 566

COGNITIVE DEVELOPMENT 594

Memory 595
 Explicit versus Implicit Memory 595
 Associative Memory 596
 Remote Memory 597
 Prospective Memory 598

Language Processing 598

Problem Solving 599

Wisdom 600

Factors Related to Cognitive Maintenance and Change 601

Cognitive Interventions 602

Lifelong Learning 602

■ **SOCIAL ISSUES: EDUCATION** *The Art of Acting Enhances Cognitive Functioning in Older Adults* 603
 Types of Programs 603
 Benefits of Continuing Education 605

Summary 605

Important Terms and Concepts 607

PART IX

LATE ADULTHOOD

 **chapter 17**
Physical and Cognitive Development in Late Adulthood 568

PHYSICAL DEVELOPMENT 570

Life Expectancy 570
 Variations in Life Expectancy 570
 Life Expectancy in Late Adulthood 571
 Maximum Lifespan 572

■ **BIOLOGY AND ENVIRONMENT** *What Can We Learn About Aging from Centenarians?* 572

Physical Changes 573
 Nervous System 573
 Sensory Systems 574
 Cardiovascular and Respiratory Systems 576
 Immune System 577
 Sleep 577
 Physical Appearance and Mobility 578
 Adapting to Physical Changes of Late Adulthood 578

Health, Fitness, and Disability 581
 Nutrition and Exercise 582
 Sexuality 583
 Physical Disabilities 585
 Mental Disabilities 587
 Health Care 591

■ **SOCIAL ISSUES: HEALTH** *Interventions for Caregivers of Older Adults with Dementia* 592

 **chapter 18**
Emotional and Social Development in Late Adulthood 608

Erikson’s Theory: Ego Integrity versus Despair 610

Other Theories of Psychosocial Development in Late Adulthood 610
 Peck’s Tasks of Ego Integrity and Joan Erikson’s Gerotranscendence 610
 The Positivity Effect 611
 Reminiscence 612

Stability and Change in Self-Concept and Personality 612
 Secure and Multifaceted Self-Concept 612

■ **CULTURAL INFLUENCES** *The New Old Age* 613
 Agreeableness, Acceptance of Change, and Openness to Experience 614
 Spirituality and Religiosity 614

Contextual Influences on Psychological Well-Being 615
 Control versus Dependency 616
 Physical Health 617
 Negative Life Changes 617
 Social Support 617

■ **SOCIAL ISSUES: HEALTH** *Elder Suicide* 618

A Changing Social World 619
 Social Theories of Aging 620
 Social Contexts of Aging: Communities, Neighborhoods, and Housing 622

Relationships in Late Adulthood 625
 Marriage 625
 Lesbian and Gay Couples 626

Divorce, Remarriage, and Cohabitation 627
 Widowhood 628
 Never-Married, Childless Older Adults 629
 Siblings 630
 Friendships 630
 Relationships with Adult Children 631
 Relationships with Adult Grandchildren 632
 Elder Maltreatment 632

Retirement 634

The Decision to Retire 635
 Adjustment to Retirement 636
 Leisure and Volunteer Activities 636

Successful Aging 637

■ **BIOLOGY AND ENVIRONMENT** *Experience Corps: Promoting Retired Adults' Physical and Mental Health and Children's Academic Success* 638

Summary 639**Important Terms and Concepts** 641

MILESTONES *Development in Late Adulthood* 642

PART X

THE END OF LIFE

**chapter 19****Death, Dying, and Bereavement** 644**How We Die** 646

Physical Changes 646
 Defining Death 646
 Death with Dignity 647

Understanding of and Attitudes Toward Death 648

Childhood 648
 Adolescence 650
 Adulthood 650
 Death Anxiety 651

Thinking and Emotions of Dying People 653

Do Stages of Dying Exist? 653
 Contextual Influences on Adaptations to Dying 654

A Place to Die 657

Home 657
 Hospital 657
 Nursing Home 658
 The Hospice Approach 658

■ **BIOLOGY AND ENVIRONMENT** *Music as Palliative Care for Dying Patients* 659

The Right to Die 660

Ending Life-Sustaining Treatment 660
 Medical Aid-in-Dying 662
 Voluntary Euthanasia 664

Bereavement: Coping with the Death of a Loved One 665

Grief Process 665
 Personal and Situational Variations 666
 Bereavement Interventions 668

■ **CULTURAL INFLUENCES** *Cultural Variations in Mourning Behavior* 669

Death Education 671**Summary** 672**Important Terms and Concepts** 673**Glossary** G-1**References** R-1**Name Index** NI-1**Subject Index** SI-1