

Contents

A Personal Note to Students xii

Preface for Instructors xiii

PART ONE

THEORY AND RESEARCH IN CHILD DEVELOPMENT

chapter 1

History, Theory, and Research Strategies 2

The Field of Child Development 4

- Domains of Development 5
- Periods of Development 6

Basic Issues 7

- Continuous or Discontinuous Development? 7
- One Course of Development or Many? 8
- Relative Influence of Nature and Nurture? 9
- A Balanced Point of View 9

BIOLOGY AND ENVIRONMENT *Resilient Children* 10

Historical Foundations 11

- Medieval Times 11
- The Reformation 12
- Philosophies of the Enlightenment 12
- Scientific Beginnings 13

Mid-Twentieth-Century Theories 14

- The Psychoanalytic Perspective 15
- Behaviorism and Social Learning Theory 17
- Piaget's Cognitive-Developmental Theory 19

Recent Theoretical Perspectives 21

- Information Processing 21
- Developmental Neuroscience 23
- Ethology and Evolutionary Developmental Psychology 24
- Vygotsky's Sociocultural Theory 25
- Ecological Systems Theory 26

SOCIAL ISSUES: HEALTH *Family Chaos Undermines Children's Well-Being* 28

- Development as a Dynamic System 29

Comparing Child Development Theories 30

Studying the Child 32

- Common Research Methods 32

CULTURAL INFLUENCES *Immigrant Youths: Adapting to a New Land* 37

- General Research Designs 38
- Designs for Studying Development 40
- Improving Developmental Designs 43
- Ethics in Research on Children 44

Summary 47

Important Terms and Concepts 49

PART TWO

FOUNDATIONS OF DEVELOPMENT

chapter 2

Genetic and Environmental Foundations 50

Genetic Foundations 51

- The Genetic Code 52
- The Sex Cells 53
- Boy or Girl? 53
- Multiple Offspring 53
- Patterns of Gene–Gene Interactions 55
- Chromosomal Abnormalities 59

Reproductive Choices 61

- Genetic Counseling 61

SOCIAL ISSUES: HEALTH *The Pros and Cons of Reproductive Technologies* 62

- Prenatal Diagnosis and Fetal Medicine 64
- Adoption 66

Environmental Contexts for Development 67

- The Family 68

SOCIAL ISSUES: EDUCATION *Worldwide Education of Girls: Transforming Current and Future Generations* 70

- Socioeconomic Status and Family Functioning 70
- Affluence 72
- Poverty 73
- Beyond the Family: Neighborhoods and Schools 75
- The Cultural Context 77

CULTURAL INFLUENCES *The African-American Extended Family* 78

Understanding the Relationship Between Heredity and Environment 81

- The Question, “How Much?” 82
- The Question, “How?” 83

BIOLOGY AND ENVIRONMENT *Smoking During Pregnancy Alters Gene Expression* 87

Summary 88

Important Terms and Concepts 89

chapter 3

Prenatal Development 90

Motivations for Parenthood 91

- Why Have Children? 91
- How Large a Family? 93
- Is There a Best Time During Adulthood to Have a Child? 94

Prenatal Development 95

- Conception 95
- Germinal Period 97

vi CONTENTS

- Period of the Embryo 98
- Period of the Fetus 99
- Prenatal Environmental Influences** 101
 - Teratogens 101
- BIOLOGY AND ENVIRONMENT** *The Prenatal Environment and Health in Later Life* 103
 - Other Maternal Factors 111
- SOCIAL ISSUES: HEALTH** *The Nurse–Family Partnership: Reducing Maternal Stress and Enhancing Child Development Through Social Support* 114
 - The Importance of Prenatal Health Care 115
- BIOLOGY AND ENVIRONMENT** *Prenatal Iron Deficiency and Memory Impairments in Infants of Diabetic Mothers* 116
- Preparing for Parenthood** 118
 - The Baby Becomes a Reality 118
 - Models of Effective Parenthood 119
 - The Parental Relationship 119
- Summary** 120
- Important Terms and Concepts** 121

chapter 4

Birth and the Newborn Baby 122

- The Stages of Childbirth** 123
 - Stage 1: Dilation and Effacement of the Cervix 125
 - Stage 2: Delivery of the Baby 125
 - Stage 3: Birth of the Placenta 125
 - The Baby's Adaptation to Labor and Delivery 125
 - The Newborn Baby's Appearance 126
 - Assessing the Newborn's Physical Condition: The Apgar Scale 126
- Approaches to Childbirth** 127
 - Natural, or Prepared, Childbirth 128
 - Home Delivery 129
- Medical Interventions** 129
 - Fetal Monitoring 130
 - Labor and Delivery Medication 130
 - Instrument Delivery 131
 - Induced Labor 131
 - Cesarean Delivery 131
- Birth Complications** 132
 - Oxygen Deprivation 133
 - Preterm and Low-Birth-Weight Infants 134
- SOCIAL ISSUES: HEALTH** *A Cross-National Perspective on Health Care and Other Policies for Parents and Newborn Babies* 138
 - Birth Complications, Parenting, and Resilience 139
- Precious Moments After Birth** 140
- The Newborn Baby's Capacities** 141
 - Reflexes 141
 - States 143
- SOCIAL ISSUES: HEALTH** *The Mysterious Tragedy of Sudden Infant Death Syndrome* 145
 - Sensory Capacities 147
 - Neonatal Behavioral Assessment 150

- The Transition to Parenthood** 152
 - Changes in the Family System 152
- BIOLOGY AND ENVIRONMENT** *Parental Depression and Child Development* 153
 - Single-Mother Families 154
 - Parent Interventions 155
- Summary** 156
- Important Terms and Concepts** 157

PART THREE

INFANCY AND TODDLERHOOD: THE FIRST TWO YEARS

chapter 5

Physical Development in Infancy and Toddlerhood 158

- Body Growth** 159
 - Changes in Body Size and Muscle–Fat Makeup 159
 - Changes in Body Proportions 161
 - Individual and Group Difference 161
- Brain Development** 161
 - Development of Neurons 161
 - Measures of Brain Functioning 163
 - Development of the Cerebral Cortex 164
- BIOLOGY AND ENVIRONMENT** *Brain Plasticity: Insights from Research on Brain-Damaged Children and Adults* 166
 - Sensitive Periods in Brain Development 167
 - Changing States of Arousal 169
- CULTURAL INFLUENCES** *Cultural Variation in Infant Sleeping Arrangements* 170
- Influences on Early Physical Growth** 171
 - Heredity 171
 - Nutrition 171
- SOCIAL ISSUES: HEALTH** *U.S. Public Policy Changes Improve Infant Feeding Practices in Low-Income Families* 174
 - Malnutrition 175
 - Emotional Well-Being 176
- Learning Capacities** 176
 - Classical Conditioning 176
 - Operant Conditioning 178
 - Habituation 178
 - Imitation 179
- Motor Development** 181
 - The Sequence of Motor Development 181
 - Motor Skills as Dynamic Systems 181
 - Dynamic Motor Systems in Action 183
 - Cultural Variations in Motor Development 184
 - Fine-Motor Development: Reaching and Grasping 185
- Perceptual Development** 187
 - Hearing 187

BIOLOGY AND ENVIRONMENT *“Tuning in” to Familiar Speech, Faces, and Music: A Sensitive Period for Culture-Specific Learning* 188

- Vision 189
- Object Perception 193
- Intermodal Perception 195
- Understanding Perceptual Development 196

Summary 198**Important Terms and Concepts** 199**chapter 6****Cognitive Development in Infancy and Toddlerhood** 200**Piaget’s Cognitive-Developmental Theory** 201

- Piaget’s Ideas About Cognitive Change 202
- The Sensorimotor Stage 203
- Follow-Up Research on Infant Cognitive Development 205

SOCIAL ISSUES: EDUCATION *Baby Learning from TV and Video: The Video Deficit Effect* 210

- Evaluation of the Sensorimotor Stage 211

Information Processing 214

- A General Model of Information-Processing 215
- Attention 216
- Memory 217
- Categorization 219

BIOLOGY AND ENVIRONMENT *Infantile Amnesia* 220

- Evaluation of Information-Processing Findings 222

The Social Context of Early Cognitive Development 222**CULTURAL INFLUENCES** *Social Origins of Make-Believe Play* 224**Individual Differences in Early Mental Development** 225

- Infant and Toddler Intelligence Tests 225
- Early Environment and Mental Development 226
- Early Intervention for At-Risk Infants and Toddlers 229

Language Development 231

- Theories of Language Development 231

BIOLOGY AND ENVIRONMENT *Deaf Children Invent Language* 232

- Getting Ready to Talk 235
- First Words 237
- The Two-Word Utterance Phase 237
- Comprehension versus Production 238
- Individual and Cultural Differences 239
- Supporting Early Language Development 240

Summary 242**Important Terms and Concepts** 243**chapter 7****Emotional and Social Development in Infancy and Toddlerhood** 244**Erikson’s Theory of Infant and Toddler Personality** 246

- Basic Trust versus Mistrust 246
- Autonomy versus Shame and Doubt 246

Emotional Development 247

- Basic Emotions 247
- Understanding and Responding to the Emotions of Others 250
- Emergence of Self-Conscious Emotions 251
- Beginnings of Emotional Self-Regulation 252

Temperament and Development 253

- The Structure of Temperament 254
- Measuring Temperament 255

BIOLOGY AND ENVIRONMENT *Development of Shyness and Sociability* 256

- Stability of Temperament 257
- Genetic and Environmental Influences 257
- Temperament and Child Rearing: The Goodness-of-Fit Model 259

Development of Attachment 261

- Bowlby’s Ethological Theory 261
- Measuring the Security of Attachment 263
- Stability of Attachment 264
- Cultural Variations 265
- Factors That Affect Attachment Security 265
- Multiple Attachments 269

SOCIAL ISSUES: HEALTH *Does Child Care in Infancy Threaten Attachment Security and Later Adjustment?* 270**CULTURAL INFLUENCES** *The Powerful Role of Paternal Warmth in Development* 272

- From Attachment to Peer Sociability 274
- Attachment and Later Development 274

Self-Development 275

- Self-Awareness 276
- Categorizing the Self 278
- Self-Control 278

Summary 280**Important Terms and Concepts** 281**MILESTONES****Development in Infancy and Toddlerhood** 282**PART FOUR****EARLY CHILDHOOD:
TWO TO SIX YEARS****chapter 8****Physical Development in Early Childhood** 284**Body Growth** 285

- Skeletal Growth 287
- Brain Development 287

Influences on Physical Growth and Health 290

- Heredity and Hormones 290

BIOLOGY AND ENVIRONMENT *Low-Level Lead Exposure and Children’s Development* 291

- Emotional Well-Being 292
- Sleep Habits and Problems 292
- Nutrition 294
- Infectious Disease 296

SOCIAL ISSUES: HEALTH *Otitis Media and Development* 298

- Childhood Injuries 298

Motor Development 301

- Gross-Motor Development 301
- Fine-Motor Development 303

CULTURAL INFLUENCES *Why Are Children from Asian Cultures Advanced in Drawing Skills?* 305

- Individual Differences in Motor Skills 307
- Enhancing Early Childhood Motor Development 307

Summary 308

Important Terms and Concepts 309

chapter 9

Cognitive Development in Early Childhood 310

Piaget's Theory: The Preoperational Stage 311

- Advances in Mental Representation 312
- Make-Believe Play 312
- Symbol–Real-World Relations 313
- Limitations of Preoperational Thought 315
- Follow-Up Research on Preoperational Thought 317
- Evaluation of the Preoperational Stage 319

SOCIAL ISSUES: EDUCATION *Children's Questions: Catalyst for Cognitive Development* 320

- Piaget and Education 321

Vygotsky's Sociocultural Theory 322

- Private Speech 322
- Social Origins of Early Childhood Cognition 323
- Vygotsky and Early Childhood Education 325
- Evaluation of Vygotsky's Theory 325

CULTURAL INFLUENCES *Children in Village and Tribal Cultures Observe and Participate in Adult Work* 326

Information Processing 327

- Attention 327
- Memory 329
- Problem Solving 331
- The Young Child's Theory of Mind 332

BIOLOGY AND ENVIRONMENT *Autism and Theory of Mind* 335

- Early Literacy and Mathematical Development 336

Individual Differences in Mental Development 339

- Early Childhood Intelligence Tests 340
- Home Environment and Mental Development 340
- Preschool, Kindergarten, and Child Care 341
- Educational Media 346

Language Development 348

- Vocabulary 348
- Grammar 350
- Conversation 352
- Supporting Language Learning in Early Childhood 353

Summary 354

Important Terms and Concepts 355

chapter 10

Emotional and Social Development in Early Childhood 356

Erikson's Theory: Initiative versus Guilt 357

Self-Understanding 358

- Foundations of Self-Concept 358
- Emergence of Self-Esteem 359

CULTURAL INFLUENCES *Cultural Variations in Personal Storytelling: Implications for Early Self-Concept* 360

Emotional Development 361

- Understanding Emotion 361
- Emotional Self-Regulation 362
- Self-Conscious Emotions 363
- Empathy and Sympathy 364

Peer Relations 365

- Advances in Peer Sociability 365
- First Friendships 368
- Peer Relations and School Readiness 368
- Social Problem Solving 369
- Parental Influences on Early Peer Relations 371

Foundations of Morality 372

- The Psychoanalytic Perspective 372
- Social Learning Theory 374

CULTURAL INFLUENCES *Ethnic Differences in the Consequences of Physical Punishment* 377

- The Cognitive-Developmental Perspective 378
- The Other Side of Morality: Development of Aggression 379

Gender Typing 384

- Gender-Stereotyped Beliefs and Behaviors 384
- Biological Influences on Gender Typing 385
- Environmental Influences on Gender Typing 386

SOCIAL ISSUES: EDUCATION *Children Learn About Gender Through Mother–Child Conversations* 388

- Gender Identity 389
- Reducing Gender Stereotyping in Young Children 391

Child Rearing and Emotional and Social Development 392

- Styles of Child Rearing 392
- What Makes Authoritative Child Rearing Effective? 394
- Cultural Variations 395
- Child Maltreatment 396

Summary 400

Important Terms and Concepts 401

MILESTONES

Development in Early Childhood 402

PART FIVE

MIDDLE CHILDHOOD:
SIX TO ELEVEN YEARS

chapter 11

Physical Development in Middle Childhood 404**Body Growth 405**

- Worldwide Variations in Body Size 406
- Secular Trends in Physical Growth 406
- Skeletal Growth 406
- Brain Development 408

Common Health Problems 409

- Nutrition 409
- Overweight and Obesity 410

SOCIAL ISSUES: HEALTH *Family Stressors and Childhood Obesity 412*

- Vision and Hearing 414
- Bedwetting 415
- Illnesses 416
- Unintentional Injuries 417

Health Education 418**Motor Development and Play 419**

- Gross-Motor Development 420
- Fine-Motor Development 421
- Individual Differences in Motor Skills 421
- Games with Rules 422
- Adult-Organized Youth Sports 423
- Shadows of Our Evolutionary Past 424

SOCIAL ISSUES: EDUCATION *School Recess—A Time to Play, a Time to Learn 425*

- Physical Education 425

Summary 426**Important Terms and Concepts 427**

chapter 12

**Cognitive Development
in Middle Childhood 428****Piaget's Theory: The Concrete Operational Stage 429**

- Attainments of the Concrete Operational Stage 429
- Limitations of Concrete Operational Thought 432
- Follow-Up Research on Concrete Operational Thought 432
- Evaluation of the Concrete Operational Stage 434

Information Processing 434

- Executive Function 434
- Working-Memory Capacity 435
- Attention 436
- Memory Strategies 437

BIOLOGY AND ENVIRONMENT *Children with Attention-Deficit Hyperactivity Disorder 438*

- Knowledge and Memory Performance 438
- Culture, Schooling, and Memory Strategies 440
- The School-Age Child's Theory of Mind 440
- Cognitive Self-Regulation 442
- Applications of Information Processing to Academic Learning 443

Individual Differences in Mental Development 446

- Defining and Measuring Intelligence 446
- Recent Efforts to Define Intelligence 447
- Explaining Individual and Group Differences in IQ 450

CULTURAL INFLUENCES *The Flynn Effect: Massive Generational Gains in IQ 452*

- Reducing Cultural Bias in Testing 454

Language Development 455

- Vocabulary 455
- Grammar 456
- Pragmatics 456
- Learning Two Languages 457

Children's Learning in School 459

- Class Size 459
- Educational Philosophies 460
- Teacher–Student Interaction 462
- Grouping Practices 463
- Educational Media 463

SOCIAL ISSUES: EDUCATION *Magnet Schools: Equal Access to High-Quality Education 464*

- Teaching Children with Special Needs 465
- How Well-Educated Are U.S. Children? 468

Summary 470**Important Terms and Concepts 471**

chapter 13

**Emotional and Social Development
in Middle Childhood 472****Erikson's Theory: Industry versus Inferiority 473****Self-Understanding 474**

- Self-Concept 474
- Cognitive, Social, and Cultural Influences on Self-Concept 475
- Self-Esteem 475
- Influences on Self-Esteem 476

Emotional Development 481

- Self-Conscious Emotions 481
- Emotional Understanding 482
- Emotional Self-Regulation 482

Moral Development 483

- Moral and Social-Conventional Understanding 484
- Understanding Individual Rights 484
- Culture and Moral Understanding 485
- Understanding Diversity and Inequality 485

Peer Relations 487

- Peer Groups 488
- Friendships 489
- Peer Acceptance 490

BIOLOGY AND ENVIRONMENT *Bullies and Their Victims* 492

Gender Typing 493

- Gender-Stereotyped Beliefs 493
- Gender Identity and Behavior 495

Family Influences 496

- Parent–Child Relationships 496
- Siblings 497
- Only Children 498
- Lesbian and Gay Families 498
- Never-Married Single-Parent Families 499
- Divorce 500
- Blended Families 503
- Maternal Employment and Dual-Earner Families 505

Some Common Problems of Development 507

- Fears and Anxieties 507
- Child Sexual Abuse 508

CULTURAL INFLUENCES *The Impact of Ethnic and Political Violence on Children* 509

- Fostering Resilience in Middle Childhood 510

SOCIAL ISSUES: HEALTH *Children’s Eyewitness Testimony* 511

Summary 513

Important Terms and Concepts 515

MILESTONES

Development in Middle Childhood 516

PART SIX

ADOLESCENCE: THE TRANSITION TO ADULTHOOD

chapter 14

Physical Development in Adolescence 518

Conceptions of Adolescence 519

- The Biological Perspective 519
- The Social Perspective 520
- A Balanced Point of View 520

Puberty: The Physical Transition to Adulthood 521

- Hormonal Changes 521
- Body Growth 522
- Motor Development and Physical Activity 524
- Sexual Maturation 525
- Individual Differences in Pubertal Growth 526
- The Secular Trend 527
- Brain Development 527
- Changing States of Arousal 529

The Psychological Impact of Pubertal Events 529

- Reactions to Pubertal Changes 529
- Pubertal Change, Emotion, and Social Behavior 530
- Pubertal Timing 531

Health Issues 533

- Nutritional Needs 533
- Eating Disorders 534
- Injuries 536
- Sexual Activity 537

SOCIAL ISSUES: EDUCATION *Parents and Teenagers (Don’t) Talk About Sex* 538

BIOLOGY AND ENVIRONMENT *Lesbian, Gay, and Bisexual Youths: Coming Out to Oneself and Others* 542

- Sexually Transmitted Infections 543
- Adolescent Pregnancy and Parenthood 545

SOCIAL ISSUES: HEALTH *Like Parent, Like Child: Intergenerational Continuity in Adolescent Parenthood* 547

- Substance Use and Abuse 549

Summary 552

Important Terms and Concepts 552

chapter 15

Cognitive Development in Adolescence 554

Piaget’s Theory: The Formal Operational Stage 556

- Hypothetico-Deductive Reasoning 556
- Propositional Thought 556
- Follow-Up Research on Formal Operational Thought 557

An Information-Processing View of Adolescent Cognitive Development 559

- Scientific Reasoning: Coordinating Theory with Evidence 559
- How Scientific Reasoning Develops 560

Consequences of Adolescent Cognitive Changes 561

- Self-Consciousness and Self-Focusing 561
- Idealism and Criticism 563
- Decision Making 563

Sex Differences in Mental Abilities 564

- Verbal Abilities 565
- Mathematical Abilities 565

BIOLOGY AND ENVIRONMENT *Sex Differences in Spatial Abilities* 566

Language Development 568

- Vocabulary and Grammar 568
- Pragmatics 569

Learning in School 569

- School Transitions 569
- Academic Achievement 571

SOCIAL ISSUES: EDUCATION *Media Multitasking Disrupts Attention and Learning* 573

SOCIAL ISSUES: EDUCATION *High-Stakes Testing* 575

- Dropping Out 576

Vocational Development 577

- Selecting a Vocation 577
- Factors Influencing Vocational Choice 577
- Vocational Preparation of Non-College-Bound Adolescents 582

Summary 584

Important Terms and Concepts 585

chapter 16**Emotional and Social Development in Adolescence 586****Erikson's Theory: Identity versus Role Confusion** 587**Self-Understanding** 588

Changes in Self-Concept 588

Changes in Self-Esteem 589

Factors That Affect Self-Esteem 590

Paths to Identity 591

Identity Status and Psychological Well-Being 592

Factors That Affect Identity Development 592

CULTURAL INFLUENCES *Identity Development Among Ethnic Minority Adolescents* 594**Moral Development** 595

Kohlberg's Theory of Moral Development 596

Are There Sex Differences in Moral Reasoning? 599

Coordinating Moral, Social-Conventional, and Personal Concerns 600

Influences on Moral Reasoning 600

Moral Reasoning and Behavior 602

SOCIAL ISSUES: EDUCATION *Development of Civic Engagement* 603

Religious Involvement and Moral Development 604

Further Challenges to Kohlberg's Theory 604

Gender Typing 605**The Family** 606

Parent–Child Relationships 606

Family Circumstances 609

Siblings 609

Peer Relations 610

Friendships 610

Cliques and Crowds 614

Dating 615

Peer Conformity 616

Problems of Development 617

Depression 617

Suicide 619

Delinquency 621

BIOLOGY AND ENVIRONMENT *Two Routes to Adolescent Delinquency* 622**At the Threshold** 625**Summary** 626**Important Terms and Concepts** 627**MILESTONES****Development in Adolescence 628****chapter 17****Emerging Adulthood 630****Unprecedented Exploration** 632**Cultural Change, Cultural Variation, and Emerging Adulthood** 633**CULTURAL INFLUENCES** *Is Emerging Adulthood Really a Distinct Stage of Development?* 635**Development in Emerging Adulthood** 636

Cognitive Changes 636

Emotional and Social Changes 637

Risk and Resilience in Emerging Adulthood 645**Summary** 647**Important Terms and Concepts** 647**Glossary G-1****References R-1****Name Index NI-1****Subject Index SI-1**