Child Development

A Topical Approach

ROBERT S. FELDMAN

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Brief Contents

CHAPTER 1 An Introduction to Child Development 2

CHAPTER 2 Theoretical Perspectives and Research 20

CHAPTER 3 The Start of Life: Genetics and Prenatal Development 56

CHAPTER 4 Birth and the Newborn Infant 94

CHAPTER 5 Physical Growth and Health 124

CHAPTER 6 Cognitive Development: Piaget and Vygotsky 160

CHAPTER 7 Cognitive Development: Information Processing 190

CHAPTER 8 Language Development 218

CHAPTER 9 Intelligence 244

CHAPTER 10 Social and Emotional Development 272

CHAPTER 11 Development of the Self 304

CHAPTER 12 Gender and Sexuality 326

CHAPTER 13 Moral Development and Aggression 350

CHAPTER 14 Friends and Family 380

CHAPTER 15 Schooling, Culture, and Society: Living in a Multicultural World 418

Contents

Preface xii
About the Author xix

1 An Introduction to Child Development 2

PROLOGUE: Conceptions, Old and New 3

MODULE 1.1: An Orientation to Child Development 4

Characterizing Child Development: The Scope of the Field 5
Topical Areas in Child Development 5
Age Ranges and Individual Differences 6
The Links between Topics and Ages 7
Cohort Influences on Development: Developing with Others in a Social World 9
Review, Check, and Apply 10

MODULE 1.2: Children: Past, Present, and Future 10

Early Views of Children 11
Philosophers' Perspectives on Children 11
Baby Biographies 11
Focus on Childhood 11
The 20th Century: Child Development as a Discipline 11
Contributions of Women 12
Today's Key Issues and Questions: Child Development's Underlying Themes 12
Continuous Change versus Discontinuous Change 12
Critical and Sensitive Periods: Gauging the Impact of Environmental Events 13
Life Span Approaches versus a Focus on Particular Periods 14
The Relative Influence of Nature and Nurture on Development 14
Implications for Child Rearing and Social Policy 14
The Future of Child Development 15
Review, Check, and Apply 17
The Case of . . . Too Many Choices 18
Looking Back 18
Key Terms and Concepts 19
Epilogue 19

2 Theoretical Perspectives and Research 20

PROLOGUE: The Unasked Questions 21

MODULE 2.1: Perspectives on Children 22

The Psychodynamic Perspective: Focusing on Internal Forces 23
Freud's Psychoanalytic Theory 23
Erikson's Psychosocial Theory 24
Assessing the Psychodynamic Perspective 25
The Behavioral Perspective: Focusing on External Forces 25
Classical Conditioning: Stimulus Substitution 26
Operant Conditioning 26
Social-Cognitive Learning Theory: Learning through Imitation 27
Assessing the Behavioral Perspective 27
The Cognitive Perspective: Examining the Roots of Understanding 27
Piaget's Theory of Cognitive Development 28
Assessing Piaget's Theory 29
Information Processing Approaches 29
Assessing Information Processing Approaches 30
Cognitive Neuroscience Approaches 30
Assessing Cognitive Neuroscience Approaches 30
The Contextual Perspective: Taking a Broad Approach to Development 31
The Bioecological Approach to Development 31
The Influence of Culture 32
Assessing the Bioecological Approach 32
Vygotsky's Sociocultural Theory 32
Assessing Vygotsky's Theory 33
Evolutionary Perspectives: Our Ancestors' Contributions to Behavior 34
Assessing the Evolutionary Perspective 34
Why "Which Perspective Is Right?" Is the Wrong Question 35
Review, Check, and Apply 36

MODULE 2.2: The Scientific Method and Research 37

Theories and Hypotheses: Posing Developmental Questions 37
Theories: Framing Broad Explanations 38
Hypotheses: Specifying Testable Predictions 38
Choosing a Research Strategy: Answering Questions 38

Correlational Studies 39
The Correlation Coefficient 40
Types of Correlational Studies 41
Experiments: Determining Cause and Effect 42
Designing an Experiment 43
Random Assignment 43
Choosing a Research Setting 44
Review, Check, and Apply 46

MODULE 2.3: Research Strategies and Challenges 47

Theoretical and Applied Research: Complementary Approaches 47
Measuring Developmental Change 47
Longitudinal Studies: Measuring Individual Change 48
Cross-Sectional Studies 49
Sequential Studies 50
Ethics and Research 50
Review, Check, and Apply 52
The Case of . . . a Study in Violence 53
Looking Back 53
Key Terms and Concepts 54
Epilogue 54

3 The Start of Life: Genetics and Prenatal Development 56

PROLOGUE: An Agonizing Choice 57

MODULE 3.1 Earliest Development 58

Genes and Chromosomes: The Code of Life 58
Multiple Births: Two—or More—for the Genetic Price of One 59
Boy or Girl? Establishing the Sex of the Child 59
The Basics of Genetics: The Mixing and Matching of Traits 60
Transmission of Genetic Information 61
Polygenic Traits 62
The Human Genome and Behavioral Genetics: Cracking the Genetic Code 63
Inherited and Genetic Disorders: When Development Goes Awry 63
Genetic Counseling: Predicting the Future from the Genes of the Present 66
Prenatal Testing 66
Screening for Future Problems 67
Review, Check, and Apply 69

MODULE 3.2: The Interaction of Heredity and Environment 70

The Role of the Environment in Determining the Expression of Genes: From Genotypes to Phenotypes 70
Interaction of Factors 70
Studying Development: How Much Is Nature? How Much Is Nurture? 71
Nonhuman Animal Studies: Controlling Both Genetics and Environment 72
Contrasting Relatedness and Behavior: Adoption, Twin, and Family Studies 72
Physical Traits: Family Resemblances 73
Intelligence: More Research, More Controversy 73
Genetic and Environmental Influences on Personality: Born to Be Outgoing? 74
Psychological Disorders: The Role of Genetics and Environment 77
Can Genes Influence the Environment? 78
Review, Check, and Apply 78

MODULE 3.3: Prenatal Growth and Change 79

Fertilization: The Moment of Conception 80
The Stages of the Prenatal Period: The Onset of Development 80
The Germinal Stage: Fertilization to 2 Weeks 80
The Embryonic Stage: 2 Weeks to 8 Weeks 81
The Fetal Stage: 8 Weeks to Birth 82
Pregnancy Problems 83
Infertility 83
Ethical Issues 84
Miscarriage and Abortion 84
The Prenatal Environment: Threats to Development 84
Mother's Diet 86
Mother's Age 86
Mother's Prenatal Support 86
Mother's Health 87
Mothers' Drug Use 88
Mothers' Use of Alcohol and Tobacco 88
Do Fathers Affect the Prenatal Environment? 89
Review, Check, and Apply 90
The Case of . . . The Genetic Finger of Fate 91
Looking Back 92
Key Terms and Concepts 93
Epilogue 93

4 Birth and the Newborn Infant 94

PROLOGUE: Smaller than a Soda Can 95

MODULE 4.1: Birth 96

Labor: The Process of Birth Begins 96
Birth: From Fetus to Neonate 98
The Apgar Scale 98
Physical Appearance and Initial Encounters 99
Approaches to Childbirth: Where Medicine and Attitudes Meet 99
Alternative Birthing Procedures 100
Childbirth attendants: Who delivers? 101

Pain and Childbirth 102
Use of Anesthesia and Pain-Reducing Drugs 102
Postdelivery Hospital Stay: Deliver, Then Depart? 102
Newborn Medical Screening 103
Review, Check, and Apply 105

MODULE 4.2: Birth Complications 106

Preterm Infants: Too Soon, Too Small 106
Very-Low-Birthweight Infants: The Smallest of the Small 107
What Causes Preterm and Low-Birthweight Deliveries? 108
Postmature Babies: Too Late, Too Large 109
Cesarean Delivery: Intervening in the Process of Birth 110
Infant Mortality and Stillbirth: The Tragedy of Premature Death 111
Postpartum Depression: Moving from the Heights of Joy to the Depths of Despair 114
Review, Check, and Apply 114

MODULE 4.3: The Competent Newborn 115

Physical Competence: Meeting the Demands of a New Environment 116
Sensory Capabilities: Experiencing the World 117
Early Learning Capabilities 117
Classical Conditioning 118
Operant Conditioning 118
Habituation 119
Social Competence: Responding to Others 119
Review, Check, and Apply 121
The Case of . . . No Place Like Home? 121
Looking Back 122
Key Terms and Concepts 123
Epilogue 123

5 Physical Growth and Health 124

PROLOGUE: Waiting for Allan's First Steps 125

MODULE 5.1: Physical Growth and Change 126

The Growing Body 126
Height and Weight 126
Four Principles of Growth 127
Individual Differences in Height and Weight 128
Changes in Body Shape and Structure 128
Cultural Patterns of Growth 129
The Growing Brain 130
Brain Growth during Childhood and Adolescence 130
Lateralization 131
Gross Motor Development 133
Development of Gross Motor Skills 133
The Preschool Years 134
Middle Childhood 135
Fine Motor Development 136
Infancy 136
The Preschool Years 136
Middle Childhood 137
Handedness: Separating Righties from Lefties 137
Art: The Picture of Development 138
Puberty: The Start of Sexual Maturation 138
Review, Check, and Apply 140

MODULE 5.2: The Development of the Senses 141

First Looks: Visual Perception in Infancy 142
First Sounds: Auditory Perception in Infancy 143
Smell and Taste in Infancy 145
Infants' Sensitivity to Pain and Touch 145
Contemporary Views on Infant Pain 145
Responding to Touch 146
Multimodal Perception: Combining Individual Sensory Inputs 146
Sensory Development beyond Infancy 148
Review, Check, and Apply 148

MODULE 5.3: Nutrition and Health 149

Nutrition: Links to Overall Functioning 149
Malnutrition 150
Childhood Obesity: Genetic and Social Factors 151
Dealing with Obesity 153
Health and Wellness 153
Serious Childhood Illnesses 154
Asthma 154
Injury 155
Sleep 156
Review, Check, and Apply 156
The Case of . . . Girls Don't 157
Looking Back 157
Key Terms and Concepts 158
Epilogue 159

6 Cognitive Development: Piaget and Vygotsky 160

PROLOGUE: Jared 161

MODULE 6.1: Piaget's Approach to Cognitive Development 162

Piaget: The Master Observer of Children 162
Key Elements of Piaget's Theory 163
Cognitive Development in Infancy 164
The Sensorimotor Period: The Earliest Stage of Cognitive Growth (Birth to 2 Years) 164
Cognitive Development in the Preschool Years 168
Piaget's Stage of Preoperational Thinking (Ages 2 to 7) 169
The Relation between Language and Thought 169
Centration: What You See Is What You Think 169
Conservation: Learning That Appearances Are Deceiving 170

Incomplete Understanding of Transformation 171
Egocentrism: The Inability to Take Others' Perspectives 172
The Emergence of Intuitive Thought 172
Cognitive Development in the School Years and Adolescence 174
The Rise of Concrete Operational Thought (Ages 7 to 12) 174
Piaget's Formal Operational Stage (Ages 12 to 15) 175
Using Formal Operations to Solve Problems 175
The Consequences of Adolescents' Use of Formal Operations 177
Review, Check, and Apply 177

MODULE 6.2: Appraising Piaget: Support and Challenges 178

Piaget's Contributions to Developmental Science 179
The Critics Weigh In 179
A Final Summation 181
Review, Check, and Apply 182

MODULE 6.3: Vygotsky's View of Cognitive Development: Taking Culture into Account 182

The Importance of Culture 183
The Zone of Proximal Development 183
Cultural Tools 185
Evaluating Vygotsky's Contributions 185
Review, Check, and Apply 187
The Case of . . . the Risky Bet 187
Looking Back 188
Key Terms and Concepts 189
Epilogue 189

7 Cognitive Development: Information Processing 190

PROLOGUE: Forgotten Memories 191

MODULE 7.1: The Basics of Information Processing 192

Encoding, Storage, and Retrieval: The Foundations of Information Processing 192
Automatization 193
Early Abilities 193
Information-Processing Perspectives: Gradual Transformations in Abilities 194
Cognitive Growth during the School Years 194
Explaining the Teenage (Mental) Growth Spurt 194
Egocentrism in Thinking: Adolescents' Self-Absorption 195
Academic Performance and Stereotype Threat 197
Review, Check, and Apply 198

MODULE 7.2: Memory and Attention 199

The Three-System Approach to Memory 199
Memory During Infancy: They Must Remember This . . . 199
The Duration of Memories 200
Memory in Early Childhood 201
Preschoolers' Understanding of Numbers 201
Memory: Recalling the Past 201
Memory Development in the School Years 202
Improving Memory 203
The Cognitive Neuroscience of Memory 203
Attention 204
Attention: The First Step in Information Processing 204
Review, Check, and Apply 208

MODULE 7.3: Applying Information Processing Approaches 209

Forensic Developmental Psychology: Bringing Child Development to the Courtroom 209
Information Processing Contributions to the Classroom 211
How Should We Teach Reading? 211
Teaching Critical Thinking 212
Information Processing Approaches in Perspective 213
Review, Check, and Apply 214
The Case of . . . the Frustrated Fantasy 215
Looking Back 215
Key Terms and Concepts 217
Epilogue 217

8 Language Development 218

PROLOGUE: The First Word Spoken 219

MODULE 8.1 The Course of Language Development 220

The Fundamentals of Language: From Sounds to Symbols 220
Early Sounds and Communication 220
First Words 222
First Sentences 223
Language Advances During the Preschool Years 225
Private Speech and Social Speech 226
Language Development during Middle Childhood: Mastering Language 226
Mastering the Mechanics of Language 226
Metalinguistic Awareness 227
How Language Promotes Self-Control 227
Review, Check, and Apply 228

MODULE 8.2: The Origins of Language Development 229

Language Acquisition 230
Learning Theory Approaches: Language as a Learned Skill 230
Nativist Approaches: Language as an Innate Skill 230
The Interactionist Approaches 231
How Are Language and Thought Related? 231
Review, Check, and Apply 233

MODULE 8.3: Children's Conversations: Speaking to and With Children 234

The Language of Infant-Directed Speech 234
Gender Differences in Speech Directed toward Children 236
The Links between Language Development and Poverty 236
Bilingualism: Speaking in Many Tongues 237
Review, Check, and Apply 239
The Case of . . . the Deedio Mystery 240
Looking Back 241
Key Terms and Concepts 242
Epilogue 242

9 Intelligence 244

PROLOGUE: The Exceptional Daniel Skandera 245

MODULE 9.1 Intelligence: Determining Individual Strengths 246

Intelligence Benchmarks: Differentiating the Intelligent from the Unintelligent 247
Binet's Test 247
Measuring IQ: Present-Day Approaches to Intelligence 248
Fairness in IQ Testing 249
Reliability and Validity 249
The Meaning of IQ Scores 251
What IQ Tests Don't Tell: Alternative Conceptions of Intelligence 252
Smart Thinking: The Triarchic Theory of Intelligence 253
Emotional Intelligence 254
Review, Check, and Apply 255

MODULE 9.2: Controversies Involving Intelligence 256

Individual Differences in Intelligence: Is One Infant Smarter Than Another? 256
What Is Infant Intelligence? 257
Developmental Scales 257
Information-Processing Approaches to Infant Intelligence 258
Group Differences in IQ 259
Explaining Racial Differences in IQ 260
The Bell Curve Controversy 260
Review, Check, and Apply 262

MODULE 9.3: Intellectual Deficits and the Intellectually Gifted 263

The Least Restrictive Environment 263
Below the Norm: Intellectual Disability 265
Degrees of Intellectual Disability 265
Above the Norm: The Gifted and Talented 266
Educating the Gifted and Talented 266
Review, Check, and Apply 268
The Case of . . . the Worried Eighth-Grade Teacher 269
Looking Back 269
Key Terms and Concepts 270
Epilogue 270

10 Social and Emotional Development 272

PROLOGUE: The Child-Proof Bin 273

MODULE 10.1 Forming the Roots of Sociability 274

Attachment: Forming Social Bonds 274
The Ainsworth Strange Situation and Patterns of Attachment 275
Producing Attachment: The Roles of the Mother and Father 277
Mothers and Attachment 277
Fathers and Attachment 278
Are There Differences in Attachment to Mothers and Fathers? 278
Infant Interactions: Developing a Working Relationship 279
Infants' Sociability with Their Peers: Infant–Infant Interaction 281
Review, Check, and Apply 282

MODULE 10.2: Emotional Development 283

Emotions in Infancy: Do Infants Experience Emotional Highs and Lows? 283
Experiencing Emotions 284
Stranger Anxiety and Separation Anxiety 285
Smiling 286
Decoding Others' Facial and Vocal Expressions 286
Social Referencing: Feeling What Others Feel 287
Two Explanations of Social Referencing 288
Theory of Mind: Infants' Perspectives on the Mental Lives of Others—and Themselves 288
Understanding What Others Are Thinking 289
Emotional Development in Middle Childhood 289
Emotional Development in Adolescence 290
The Instability of Emotions in Adolescence 290
The Neurological Basis of Emotion 291
Emotional Self-Regulation 291
Emotional Difficulties in Adolescence: Depression and Suicide 292
Adolescent Depression 292
Adolescent Suicide 293
Review, Check, and Apply 295

MODULE 10.3: Personality Development 296

Temperament: Stabilities in Infant Behavior 296
Categorizing Temperament: Easy, Difficult, and Slow-to-Warm Babies 297
The Consequences of Temperament: Does Temperament Matter? 298
The Biological Basis of Temperament 298
Erikson's Theory of Psychosocial Development 299
Psychosocial Development During Middle Childhood and Adolescence 300

Review, Check, and Apply 300
The Case of . . . the Long Good-bye 301
Looking Back 301
Key Terms and Concepts 302
Epilogue 303

11 Development of the Self 304

PROLOGUE: Who Is Karl Haglund? 305

MODULE 11.1 The Development of the Self 306

The Roots of Self-Awareness: Do Infants Know Who They Are? 306
Self-Concept in the Preschool Years: Thinking about the Self 307
Culture and Self-Concept 307
Understanding One's Self in Middle Childhood 308
The Shift in Self-Understanding from the Physical to the Psychological 309
Review, Check, and Apply 309

MODULE 11.2: Adolescence: The Search for Identity 311

Self-Concept: What Am I Like? 311
Identity Formation: Change or Crisis? 312
Societal Pressures and Reliance on Friends and Peers 312
Psychological Moratorium 313
Limitations of Erikson's Theory 313
Marcia's Approach to Identity Development: Updating Erikson 313
Identity, Race, and Ethnicity 314
Review, Check, and Apply 316

MODULE 11.3: Evaluating the Self 317

Self-Esteem: Developing a Positive—or Negative—View of Oneself 317
Change and Stability in Self-Esteem 318
Parenting Styles and Self-Esteem 319
Self-Esteem in Adolescence: How Do I Like Myself? 320
Socioeconomic Status and Race Differences in Self-Esteem 320
Social Identity Theory 321
Social Comparison 322
Downward Social Comparison 322
Social Comparison in Adolescence: The Importance of Peer Groups 322
Reference Groups 322
Review, Check, and Apply 323
The Case of . . . the Failed Star 323
Looking Back 324
Key Terms and Concepts 325
Epilogue 325

12 Gender and Sexuality 326

PROLOGUE: Rules of the Game 327

MODULE 12.1 Gender: Why Do Boys Wear Blue and Girls Wear Pink? 328

Gender Differences 328
Gender Roles 329
Gender Identity: Developing Femaleness and Maleness 329
Explaining Gender Differences 331
Biological Perspectives on Gender 331
Psychoanalytic Perspectives 332
Social Learning Approaches 332
Cognitive Approaches 333
Review, Check, and Apply 334

MODULE 12.2: Gender and Social Relationships 335

Gender and Friendships: The Sex Segregation of Middle Childhood 335
Gender Relations in Adolescence 336
Gender Expectations and Self-Esteem in Adolescence 337
Dating: Close Relationships in the 21st Century 338
The Functions of Dating 338
Dating, Race, and Ethnicity 339
Review, Check, and Apply 339

MODULE 12.3: Sexual Behavior and Teenage Pregnancy 340

Becoming Sexual 340
Masturbation 340
Sexual Intercourse 341
Sexual Orientation: Heterosexuality, Homosexuality, and Bisexuality 342
Teenage Pregnancies 344
The Challenges of Teenage Pregnancy 344
Virginity Pledges 345
Review, Check, and Apply 346
The Case of . . . the Wrong Role Models? 347
Looking Back 347
Key Terms and Concepts 348
Epilogue 349

13 Moral Development and Aggression 350

PROLOGUE: Jesse's Dilemma 351

MODULE 13.1 Developing Morality: Following Society's Rights and Wrongs 352

Piaget's View of Moral Development 352
Evaluating Piaget's Approach to Moral Development 353

Social Learning Approaches to Morality 354
Empathy and Moral Behavior 354
Effective Parenting: Teaching Desired Behavior 355
Cultural Differences in Childrearing Practices 357
Review, Check, and Apply 358

MODULE 13.2: Moral Reasoning and Prosocial Behavior 359

Kohlberg's Approach to Moral Development 360
Gilligan's Approach to Moral Development: Gender and Morality 362
Moral Behavior and Moral Reasoning: Why the Disconnect? 363
Prosocial Reasoning and Prosocial Behavior: The Other Side of the Coin 364
Gender and Cultural Differences in Prosocial Behavior 365
Review, Check, and Apply 365

MODULE 13.3: Aggression and Violence 366

Aggression and Violence in Preschoolers: Sources and Consequences 366
Roots of Aggression 367
Social Learning Approaches to Aggression 368
Viewing Violence on TV: Does It Matter? 368
Cognitive Approaches to Aggression: The Thoughts Behind Violence 370
School Violence 371
Schoolyard—and Cyber-Yard—Bullies 373
Bullies and Their Victims 374
The Lingering Stress of Being Bullied 374
Juvenile Delinquency: The Crimes of Adolescence 375
Review, Check, and Apply 376
The Case of . . . the Turncoat Friend 376
Looking Back 377
Key Terms and Concepts 378
Epilogue 378

14 Friends and Family 380

PROLOGUE: Rewriting the Rules 381

MODULE 14.1 Friendships in Preschool and Middle Childhood 382

Preschoolers' Friendships 382
Playing by the Rules: The Work of Play 382
Categorizing Play 383
The Social Aspects of Play 383
How Preschoolers' Theory of Mind Affects Play 385
Building Friendships In Middle Childhood 385
Stages of Friendship: Changing Views of Friends 386
Individual Differences in Friendship: What Makes a Child Popular? 387
What Makes Children Popular? 387
The Social Benefits of Physical Competence 388
Social Problem-Solving Abilities 388
Teaching Social Competence 389
Review, Check, and Apply 390

MODULE 14.2: The Role of Peers in Adolescence 391

Peer Relationships in Adolescence: The Importance of Belonging 391
Cliques and Crowds 392
Online Social Networks: Cyberspace Peers 392
Popularity: Who's In, Who's Out? 394
Personal Qualities and Popularity 394
Popularity and Rejection 394
Conformity: Peer Pressure in Adolescence 396
Review, Check, and Apply 397

MODULE 14.3: Family Relationships 397

Family Life 397
Preschoolers' Family Lives 398
Family Life in Middle Childhood 398
Changing Family Relations and the Quest for Autonomy in Adolescence 398
Culture and Autonomy 399
The Myth of the Generation Gap 400
Conflicts with Parents 401
Cultural Differences in Parent–Child Conflicts During Adolescence 402
Family Constellations: The Array of Possibilities 402
The Changing Home Environment 403
When Both Parents Work Outside the Home: How Do Children Fare? 403
Home and Alone: What Do Children Do? 404
The Impact of Divorce on Children 404
Blended Families 405
Single-Parent Families 406
Multigenerational Families 406
Families with Gay and Lesbian Parents 407
Race and Family Life 407
Poverty and Family Life 407
Group Care: Orphanages in the 21st Century 408
Child Abuse and Psychological Maltreatment: The Grim Side of Family Life 410
Physical Abuse 410
Psychological Maltreatment 412
Review, Check, and Apply 413
The Case of . . . Too Much of a Good Thing 414
Looking Back 415
Key Terms and Concepts 416
Epilogue 416

15 Schooling, Culture, and Society: Living in a Multicultural World 418

PROLOGUE: First Day 419

MODULE 15.1 Getting a Start on Schooling 420

Early Childhood Education: Taking the Pre- Out of Preschool 420
The Varieties of Early Education 421
The Effectiveness of Child Care 422
The Quality of Child Care 422
Does Head Start Truly Provide a Head Start? 424
Are We Pushing Children Too Hard and Too Fast? 424
Learning from the Media 425
Television: Controlling Exposure 426
Sesame Street: A Teacher in Every Home? 426
Media and Technology Use by Children and Adolescents 427
Viewing Television 428
Computers and the Internet: Living in a Virtual World 428
Review, Check, and Apply 429

MODULE 15.2: Sociocultural Aspects of Schooling 430

Schooling Around the World: Who Gets Educated? 430
What Makes Children Ready for School? 430
Educational Trends: Beyond the Three *R*s 431
The Transition from Elementary to Middle School 432
Homeschooling: An Alternative to Traditional Schools 434
School Performance in Adolescence 435
Socioeconomic Status and School Performance 436
Ethnic and Racial Differences in School Achievement 436
Review, Check, and Apply 437

MODULE 15.3: Living in a Multicultural World 438

How Culture Defines Us 438
Acculturation: When Cultures Collide 439
Developing an Ethnic Identity 440
Achieving Ethnic Identity 441
Multicultural Education 441
Cultural Assimilation or Pluralistic Society? 442
Fostering a Bicultural Identity 442
The Impact of Socioeconomic Status and Poverty on Children and Adolescents 443
Prejudice and Discrimination 444
Prejudice, Stereotypes, and Discrimination: The Foundations of Hate 444
The Roots of Prejudice 445
Review, Check, and Apply 448
The Case of . . . the Secret Reader 449
Looking Back 449
Key Terms and Concepts 451
Epilogue 451

References 452
Credits 567
Name Index 570
Subject Index 581

Preface

Child development is a unique field of study. Unlike other disciplines, each of us has experience with its subject matter in personal ways. It is a discipline that deals not just with ideas and concepts and theories, but one that above all has at its heart the forces that have made each of us who we are.

This text, ***Child Development: A Topical Approach,*** seeks to capture the discipline in a way that sparks and nurtures students' inherent interest in the field. It is meant to excite readers about the field, to draw them into its way of looking at the world, and to shape their understanding of developmental issues. By exposing students to both the current content and the promise inherent in child development, the text is designed to keep interest in the discipline alive long after their formal study of the field has ended.

Child Development: A Topical Approach also addresses two common concerns of course instructors. First, the field of child development is so vast that it is difficult to cover within the confines of a traditional college term. Consequently, many instructors see most child development texts as too long. Second, and more critical, many instructors express the concern that traditional, chronologically based child development books are arranged in a way that made it difficult for students to understand the scope of development within particular topical areas (such as social or personality development across childhood) without skipping from one chapter to another.

Child Development: A Topical Approach addresses both of these concerns. This book is shorter than traditional child development books, and it is arranged in a way that helps students to see the "big picture" of development across the entire span of childhood and adolescence within a specific topical area.

Child Development: A Topical Approach is rich in examples and illustrates the applications that can be derived from the research and theory of child developmentalists. It pays particular attention to the applications that can be drawn from theory and research in the field.

To optimize student learning and to provide instructors with maximum flexibility, the book uses a modular approach. Each chapter is divided into three modules focusing on particular subtopics. Consequently, rather than facing long, potentially daunting chapters, students encounter material that is divided into smaller, more manageable chunks, representing a structure that research long ago found to be optimum for promoting learning.

The modular approach has another advantage: It allows instructors to customize instruction by assigning only those modules that fit their course. Because the modules are self-contained, instructors can pick and choose which modules best contribute to their course. This flexibility allows instructors who wish to highlight a particular topic to do so easily and—equally important—have the option of not including specific modules.

Overview of *Child Development: A Topical Approach*

Child Development: A Topical Approach provides a broad overview of the field of child development. It covers major topics such as physical development, cognitive development, and social and personality development. In addition, separate chapters focus on language development, intelligence, development of the self, moral development and aggression, gender, relationships, and living in a multicultural world.

The book seeks to accomplish the following four major goals:

- First, the book is designed to provide a broad, balanced overview of the field of child development. It introduces readers to the theories, research, and applications that constitute the discipline, examining both the traditional areas of the field as well as more recent innovations. It pays particular attention to the applications developed by child development

specialists, demonstrating how child developmentalists use theory, research, and applications to help solve significant social problems.

- The second goal of the text is to explicitly tie development to students' lives. Findings from the study of child development have a significant degree of relevance to students, and this text illustrates how these findings can be applied in a meaningful, practical sense. Applications are presented in a contemporaneous framework, including current news items, timely world events, and contemporary uses of child development that draw readers into the field. Numerous descriptive scenarios and vignettes reflect everyday situations in children's and adolescents' lives, explaining how they relate to the field.
- The third goal is to highlight both the commonalities and diversity of today's multicultural society. Consequently, the book incorporates material relevant to diversity in all its forms—racial, ethnic, gender, sexual orientation, religion, and cultural diversity—throughout every chapter. In addition, every chapter has at least one "Developmental Diversity and Your Life" section. These features explicitly consider how cultural factors relevant to development both unite and diversify our contemporary, global society.
- Finally, the fourth goal is one that is implicit in the other three: making the field of child development engaging, accessible, and interesting to students. Child development is a joy both to study and teach, because so much of it has direct, immediate meaning to our lives. Because all of us are involved in our own developmental paths, we are tied in personal ways to the content areas covered by the book. ***Child Development: A Topical Approach,*** then, is meant to engage and nurture this interest, planting a seed that will develop and flourish throughout readers' lifetimes.

In accomplishing these goals, the book strives to be user-friendly. Written in a direct, conversational voice, it duplicates as much as possible a dialogue between author and student. The text is meant to be understood and mastered on its own by students of every level of interest and motivation. To that end, it includes a variety of pedagogical features that promote mastery of the material and encourage critical thinking.

Child Development: A Topical Approach is meant to be a book that readers will want to keep in their personal libraries, one that they will take off the shelf when considering problems related to that most intriguing of questions: How do children and adolescents come to be the way they are?

Features of *Child Development: A Topical Approach*

In addition to its modular structure, ***Child Development: A Topical Approach*** includes features designed to engage students and help them learn the material effectively. These include:

CHAPTER-OPENING PROLOGUES

Each chapter begins with a short vignette, describing an individual or situation that is relevant to the basic developmental issues being addressed in the chapter.

LOOKING AHEAD SECTIONS

These opening sections orient readers to the topics to be covered, bridging the opening prologue with the remainder of the chapter and providing orienting questions.

LEARNING OBJECTIVES

Every chapter includes sequentially numbered learning objectives, stated as engaging questions and based on Bloom's taxonomy. They allow students to understand clearly what they are expected to learn. The learning objectives are tied to the Looking Back summary at the end of each chapter and are also keyed to test bank items.

FROM RESEARCH TO PRACTICE

Each chapter includes a box that describes current developmental research or research issues, applied to everyday problems.

DEVELOPMENTAL DIVERSITY AND YOUR LIFE

Every chapter has at least one "Developmental Diversity and Your Life" section incorporated into the text. These sections highlight issues relevant to today's multicultural society.

ARE YOU AN INFORMED CONSUMER OF DEVELOPMENT?

Every chapter includes information on specific uses that can be derived from research conducted by developmental investigators.

NEUROSCIENCE AND DEVELOPMENT

To illustrate the influence of neuroscience throughout the field of child development, most chapters include a box presenting the latest neuroscientific advances and their impact on our understanding of child development.

CAREERS IN CHILD DEVELOPMENT

Many chapters include an interview with a person working in a field that uses the findings of child and adolescent development. Among those interviewed are a counselor for a treatment center serving teenagers confronting substance abuse, a childcare provider, a neonatal nurse, and a preschool teacher.

FROM THE PERSPECTIVE OF ...

These questions, interspersed throughout the margins of each chapter, ask students to take the perspective of someone working in an occupation that relies on findings of child development, including the fields of health care, education, and social work.

THE CASE OF ...

Every chapter includes a case study. Case studies describe an intriguing situation related to the topics discussed in the chapter, and they end by asking students questions designed to evoke critical thinking about the case and the chapter content.

REVIEW, CHECK, AND APPLY SECTIONS

Interspersed throughout each chapter are short recaps of the chapters' main points, followed by questions designed to provoke mastery of the material and critical thinking.

RUNNING GLOSSARY

Key terms are defined in the margins of the page on which the term is presented.

END-OF-CHAPTER MATERIAL

Each chapter ends with an Epilogue that refers back to the opening Prologue, a summary, and a list of key terms and concepts. This material is designed to help students study and retain the information in the chapter.

Finally, in addition to the features described above, ***Child Development: A Topical Approach*** provides complete integration between the book and a huge array of digital media in *MyPsychLab,* comprising online electronic exercises, videos, assessments, and literally hundreds of activities that extend the text and make concepts come alive. The online material is referenced throughout the book in a way meant to entice students to go online and make use of the electronic materials that will help them understand the material in the book more deeply.

I am very excited about this book. I believe its topical approach, length, modular structure and other features, and media and text integration presents the material in a highly effective way and will help students learn it. Just as important, I hope the book will spark and nurture students' interest in the field of child development, drawing them into its way of looking at the world, building their understanding of developmental issues, and showing them how the field can have a significant impact on their own and others' lives.

Ancillaries

Child Development: A Topical Approach is accompanied by a superb set of teaching and learning materials.

Supplements for the Instructor

- **Instructor's Resource Manual (ISBN: 0205948197).** Each chapter of the Instructor's Resource Manual includes sample syllabi, learning objectives, key terms and concepts,

chapter outlines and lecture notes, lecture suggestions and discussion topics, class activities, demonstrations, and assignments, out-of-class assignments and projects, supplemental reading lists, multimedia/video resources, and handouts.

The Instructor's Resource Manual will be available for download via the Pearson Instructor's Resource Center (**www.pearsonhighered.com**) or on the MyPsychLab® platform (**www.mypsychlab.com**).

- **Video Enhanced PowerPoint Slides.** These slides, available on the Instructor's Resource DVD (ISBN 0205947972), bring the Feldman design right into the classroom, drawing students into the lecture and providing wonderful interactive activities, visuals, and videos.
- **PowerPoint Lecture Slides (ISBN: 0205948219).** The lecture slides provide an active format for presenting concepts from each chapter and feature prominent figures and tables from the text. The PowerPoint Lecture Slides are available for download via the Pearson Instructor's Resource Center (**www.pearsonhighered.com**) or on the MyPsychLab® platform (**www.mypsychlab.com**).
- **Test Item File (ISBN: 020592350X).** The test bank contains more than 3,000 multiple-choice, true/false, and essay questions, each referenced to the relevant page in the textbook and given a rationale explaining the correct answer. Each question was accuracy checked to ensure that the correct answer was marked and the page reference was accurate. An additional feature of the test bank is the identification of each question as factual, conceptual, or applied. This allows professors to customize their tests and to ensure a balance of question types. Each chapter of the test item file begins with the Total Assessment Guide: an easy-to-reference grid that makes creating tests easier by organizing the test questions by text section, question type, and whether it is factual, conceptual, or applied.
- MyTest **(ISBN: 0205948200).** The test item file comes with the Pearson MyTest, a powerful assessment generation program that helps instructors easily create and print quizzes and exams. Questions and tests can be authored online, allowing instructors ultimate flexibility and the ability to efficiently manage assessments anytime, anywhere. For more information, go to **www.PearsonMyTest.com**.
- **MyVirtualChild** is an interactive simulation that allows students to raise a child from birth to age 18 and monitor the effects of their parenting decisions over time. MyVirtualChild helps students think critically as they apply their course work to the practical experiences of raising a virtual child. MyVirtualChild is available in MyPsychLab or standalone. To package the student text with MyVirtualChild use ISBN 0205941931.
- MyPsychLab **(ISBN: 0205948855).** Available at **www.mypsychlab.com**, this learning and assessment tool can be used to supplement a traditional lecture course or to administer a course entirely online. Instructors decide the extent of integration—from independent self-assessment for students to total course management. Students benefit from an easy-to-use site where they can test themselves on key content, track their progress, and use individually tailored study plans. MyPsychLab is an all-inclusive tool, including a Pearson eText, plus teaching and learning resources organized by chapter in the form of videos, simulations, animations, assessments, and other tools to engage students and reinforce learning. Fully customizable and easy to use, MyPsychLab meets the individual teaching and learning needs of every instructor and every student. To package MyPsychLab with the student text, use ISBN 0205959881.
  - **MyClassPrep.** Available for instructors within MyPsychLab, this exciting instructor resource makes lecture preparation easier and less time consuming. MyClassPrep collects the best class preparation resources—art and figures from our leading texts, videos, lecture activities, classroom activities, demonstrations, and much more—in one convenient online destination. You can search through MyClassPrep's extensive database of tools by content topic or by content type. You can select resources appropriate for your lecture, many of which can be downloaded directly; or you can build your own folder of resources and present from within MyClassPrep.

Video Resources for Instructors

- The **Development Video Series in MyPsychLab** engages students and brings to life a wide range of topics spanning prenatal through the end of the lifespan. New international videos shot on location allow students to observe similarities and differences in human development across various cultures.
- **Pearson Teaching Films Life Span Development Video, ISBN: 0205656021.**

Print and Media Supplements for the Student

- MyPsychLab. With this exciting new tool students are able to self-assess using embedded diagnostic tests and instantly view results along with a customized study plan. The customized study plan will focus on the student's strengths and weaknesses, based on the results of the diagnostic testing, and present a list of activities and resources for review and remediation, organized by chapter section. Some study resources intended for use with portable electronic devices are made available exclusively through the MyPsychLab, such as key terms flashcards and video clips. Students will be able to quickly and easily analyze their own comprehension level of the course material, and study more efficiently, leading to exceptional exam results! An access code is required and can be purchased at **www.pearsonhighered.com** or at **www.mypsychlab.com**.
- **CourseSmart eTextbook (ISBN: 0205948227).** CourseSmart offers students an online subscription to *Child Development: A Topical Approach*, Second Edition, at up to 60% savings. With the CourseSmart eTextbook, students can search the text, make notes online, print out reading assignments that incorporate lecture notes, and bookmark important passages. Ask your Pearson sales representative for details or visit **www.coursesmart.com**.

Supplementary Texts

Contact your Pearson representative to package any of these supplementary texts with ***Child Development: A Topical Approach***.

- ***Current Directions in Developmental Psychology* (ISBN: 0205597505).** Readings from the American Psychological Society. This exciting reader includes more than 20 articles that have been carefully selected for the undergraduate audience, and taken from the accessible *Current Directions in Psychological Science* journal. These timely, cutting-edge articles allow instructors to bring their students a real-world perspective about today's most current and pressing issues in psychology. Discounted when packaged with this text for college adoptions.
- ***Twenty Studies That Revolutionized Child Psychology* by Wallace E. Dixon Jr. (ISBN: 0205948030).** The new edition of this brief text presents the seminal research studies that have shaped modern developmental psychology. It provides an overview of the environment that gave rise to each study, its experimental design, its findings, and its impact on current thinking in the discipline.
- ***Human Development in Multicultural Contexts: A Book of Readings* (ISBN: 0130195235).** Written by Michele A. Paludi, this compilation of readings highlights cultural influences in developmental psychology.
- ***The Psychology Major: Careers and Strategies for Success* (ISBN: 0205684688).** Written by Eric Landrum (Idaho State University), Stephen Davis (Emporia State University), and Terri Landrum (Idaho State University), this 160-page paperback provides valuable information on career options available to psychology majors, tips for improving academic performance, and a guide to the APA style of research reporting.

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About the Author

Robert S. Feldman is Professor of Psychology and Dean of the College of Social and Behavioral Sciences at the University of Massachusetts Amherst. A recipient of the College Distinguished Teacher Award, he teaches psychology classes ranging in size from 15 to nearly 500 students. During more than two decades as a college instructor, he has taught both undergraduate and graduate courses at Mount Holyoke College, Wesleyan University, and Virginia Commonwealth University in addition to the University of Massachusetts.

A Fellow of both the American Psychological Association and the Association for Psychological Science, Professor Feldman received a B.A. with High Honors from Wesleyan University (and from which he received the Distinguished Alumni Award). He has an M.S. and Ph.D. from the University of Wisconsin–Madison. He is a winner of a Fulbright Senior Research Scholar and Lecturer award, and he has written more than 100 books, book chapters, and scientific articles.

Professor Feldman has edited *Development of Nonverbal Behavior in Children* and *Applications of Nonverbal Behavioral Theory and Research*, and co-edited *Fundamentals of Nonverbal Behavior*. He is also author of *Development Across the Life Span, Understanding Psychology,* and *P.O.W.E.R. Learning: Strategies for Success in College and Life*. His books have been translated into a number of languages, including Spanish, French, Portuguese, Dutch, Chinese, Korean, Indonesian, and Japanese. His research interests include honesty and deception in everyday life, work that he described in *The Liar in Your Life,* a trade book. His research has been supported by grants from the National Institute of Mental Health and the National Institute on Disabilities and Rehabilitation Research.

Professor Feldman loves music, is an enthusiastic pianist, and enjoys cooking and traveling. He has three children, two young grandsons, and he and his wife, a psychologist, live in western Massachusetts in a home overlooking the Holyoke mountain range.

1 An Introduction to Child Development

MODULE 1.1

AN ORIENTATION TO CHILD DEVELOPMENT

- Characterizing Child Development: The Scope of the Field

DEVELOPMENTAL DIVERSITY AND YOUR LIFE: How Culture, Ethnicity, and Race Influence Development

- Cohort Influences on Development: Developing with Others in a Social World

Review, Check, and Apply

MODULE 1.2

CHILDREN: PAST, PRESENT, AND FUTURE

- Early Views of Children
- The 20th Century: Child Development as a Discipline
- Today's Key Issues and Questions: Child Development's Underlying Themes
- The Future of Child Development

FROM RESEARCH TO PRACTICE: Preventing Violence in Children

ARE YOU AN INFORMED CONSUMER OF DEVELOPMENT? Assessing Information on Child Development

Review, Check, and Apply

The Case of … Too Many Choices

Looking Back

Key Terms and Concepts

Epilogue

PROLOGUE: Conceptions, Old and New

She was famous from the moment she was born. But it wasn't who she was that made others curious about her: It was how she was conceived.

Louise Brown, who is now in her mid-30s, has always been known as the world's first "test tube baby." She was born by *in vitro fertilization* (*IVF*), a procedure in which fertilization of a mother's egg by a father's sperm takes place outside of the mother's body.

Louise was a preschooler when her parents told her about how she was conceived, and throughout her childhood she was bombarded with questions. It became routine to explain to her classmates that she in fact was not born in a laboratory.

As a child, Louise sometimes felt isolated. "I thought it was something peculiar to me," she recalled. But as she grew older, her isolation declined as more and more children were born in the same manner.

Today, Louise is hardly isolated. More than 1.5 million babies have been born using the procedure, which has become almost routine. And at the age of 28, Louise became a mother herself, giving birth to a baby boy named Cameron—conceived, by the way, in the old-fashioned way (Moreton, 2007; Hastings, 2010).

Louise Brown and son.

LOOKING AHEAD

Louise Brown's conception may have been novel, but her development, from infancy onward, has followed predictable patterns. While the specifics of our development vary—some encounter economic deprivation or live in war-torn territories; others contend with family issues such as divorce and stepparents—the broad strokes of the development set in motion in that test tube three decades ago are remarkably similar for all of us.

Louise Brown's conception in the lab is just one of the brave new worlds of the 21st century. Issues ranging from cloning to the consequences of poverty on development to the effects of culture and race raise significant developmental concerns. Underlying these are more fundamental issues: How do children develop physically? How

(continued)

Learning Objectives

MODULE 1.1

LO1 What is child development?

LO2 What is the scope of the field of child development?

LO3 What are major societal influences that determine development?

MODULE 1.2

LO4 How have views of childhood changed historically?

LO5 What are the key issues and questions in the field of child development?

LO6 What is the future of child development likely to hold?

does their understanding of the world grow and change over time? And how do our personalities and social world develop as we move from birth through adolescence?

These questions, and many others we'll encounter throughout this book, are central to the field of child development. Consider, for example, the range of approaches that different specialists in child development might take when considering the story of Louise Brown:

- Child development researchers who investigate behavior at the level of biological processes might determine if Louise's physical functioning before her birth was affected by her conception outside the womb.
- Specialists in child development who study genetics might examine how the biological endowment from Louise's parents affects her later behavior.
- For child development specialists who investigate the ways thinking changes during childhood, Louise's life might be examined in terms of how her understanding of the nature of her conception changed as she grew older.
- Other researchers in child development who focus on physical growth might consider whether her growth rate differed from children conceived more traditionally.
- Child development experts who specialize in the social world of children might look at the ways that Louise interacted with other children and the kinds of friendships she developed.

Although their interests take many forms, these specialists in child development share one concern: understanding the growth and change that occur during the course of childhood and adolescence. Taking many differing approaches, developmentalists study how both our biological inheritance from our parents and the environment in which we live jointly affect our behavior.

Some researchers in child development focus on explaining how our genetic background can determine not only how we look but also how we behave and how we relate to others—that is, matters of personality. These professionals explore ways to identify how much of our potential as human beings is provided—or limited—by heredity. Other child development specialists look to the environment in which we are raised, exploring ways in which our lives are shaped by the world that we encounter. They investigate the extent to which we are shaped by our early environments and how our current circumstances influence our behavior in both subtle and obvious ways.

Whether they focus on heredity or environment, all child development specialists hope that their work will ultimately inform and support the efforts of professionals whose careers are devoted to improving the lives of children. Practitioners in fields ranging from education to health care to social work draw on the findings of child development researchers, using those findings to advance children's welfare.

In this chapter, we orient ourselves to the field of child development. We begin with a discussion of the scope of the discipline, illustrating the wide array of topics it covers and the range of ages it examines, from the moment of conception through the end of adolescence. We also survey the foundations of the field and examine the key issues and questions that underlie child development. Finally, we consider where the child development field is likely to go in the future.

MODULE 1.1

AN ORIENTATION TO CHILD DEVELOPMENT

LO 1-1 What is child development?

LO 1-2 What is the scope of the field of child development?

LO 1-3 What are major societal influences that determine development?

Have you ever wondered how it is possible that an infant tightly grips your finger with tiny, perfectly formed hands? Or marveled at how a preschooler methodically draws a picture? Or pondered the way an adolescent can make involved decisions about whom to invite to a party or the ethics of downloading music files?

If you've ever wondered about such things, you are asking the kinds of questions that scientists in the field of child development pose. **Child development** is the scientific study of the patterns of growth, change, and stability that occur from conception through adolescence.

Although the definition of the field seems straightforward, the simplicity is somewhat misleading. To understand what child development is actually about, we need to look underneath the various parts of the definition.

In its study of growth, change, and stability, child development takes a scientific approach. Like members of other scientific disciplines, researchers in child development test their assumptions about the nature and course of human development by applying scientific methods. As we'll see in the next chapter, they develop theories about development, and they use methodical, scientific techniques to validate the accuracy of their assumptions systematically.

Child development focuses on *human* development. Although there are some developmentalists who study the course of development in nonhuman species, the vast majority examine growth and change in people. Some seek to understand universal principles of development, while others focus on how cultural, racial, and ethnic differences affect the course of development. Still others aim to understand the unique aspects of individuals, looking at the traits and characteristics that differentiate one person from another. Regardless of approach, however, all child developmentalists view development as a continuing process throughout childhood and adolescence.

As developmental specialists focus on the ways people change and grow during their lives, they also consider stability in children's and adolescents' lives. They ask in which areas and in what periods people show change and growth and when and how their behavior reveals consistency and continuity with prior behavior.

Finally, although child development focuses on childhood and adolescence, the process of development persists throughout *every* part of people's lives, beginning with the moment of conception and continuing until death. Developmental specialists assume that in some ways people continue to grow and change right up to the end of their lives, while in other respects their behavior remains stable. In other words, developmentalists believe that no particular, single period of life governs all development. Instead, they believe that every period of life contains the potential for both growth and decline in abilities and that individuals maintain the capacity for substantial growth and change throughout their lives.

Characterizing Child Development: The Scope of the Field

Clearly, the definition of child development is broad and the scope of the field is extensive. Consequently, professionals in child development cover several quite diverse areas, and a typical developmentalist will specialize in both a topical area and age range.

Topical Areas in Child Development.

The field of child development includes three major topics or approaches:

- Physical development
- Cognitive development
- Social and personality development

A child developmentalist might specialize in one of these topical areas. For example, some developmentalists focus on **physical development**, examining the ways in which the body's makeup—the brain, nervous system, muscles, and senses and the need for food, drink, and sleep—helps determine behavior. For example, one specialist in physical development might examine the effects of malnutrition on the pace of growth in children, while another might look at how an athlete's physical performance changes during adolescence.

Other developmental specialists examine **cognitive development**, seeking to understand how growth and change in intellectual capabilities influence a person's

child development The field that involves the scientific study of the patterns of growth, change, and stability that occur from conception through adolescence

physical development Development involving the body's physical makeup, including the brain, nervous system, muscles, and senses and the need for food, drink, and sleep

cognitive development Development involving the ways that growth and change in intellectual capabilities influence a person's behavior

This wedding of two children in India is an example of how cultural factors play a significant role in determining the age when a particular event is likely to occur.

behavior. Cognitive developmentalists examine learning, memory, problem solving, and intelligence. For example, specialists in cognitive development might want to see how problem-solving changes over the course of childhood or if cultural differences exist in the ways people explain the reasons for their academic successes and failures. They would also be interested in how a person who experiences significant or traumatic events early in life remembers them later in life (Alibali, Phillips, & Fischer, 2009; Dumka et al., 2009; van Wesel et al., 2011).

Finally, some developmental specialists focus on personality and social development. **Personality development** is the study of stability and change in the enduring characteristics that differentiate one person from another. **Social development** is the way in which individuals' interactions with others and their social relationships grow, change, and remain stable over the course of life. A developmentalist interested in personality development might ask whether there are stable, enduring personality traits throughout the life span, while a specialist in social development might examine the effects of racism, poverty, or divorce on development (Lansford, 2009; Vélez et al., 2011; Carter et al., 2011). These three major topic areas—physical, cognitive, and social and personality development—are summarized in Table 1-1.

Age Ranges and Individual Differences. As they specialize in chosen topical areas, child developmentalists typically look at particular age ranges. They usually divide childhood and adolescence into broad age ranges: the prenatal period (the period from conception to birth), infancy and toddlerhood (birth to age 3), the preschool period (ages 3 to 6), middle childhood (ages 6 to 12), and adolescence (ages 12 to 20).

It's important to keep in mind that these broad periods—which are largely accepted by child developmentalists—are social constructions. A *social construction* is a shared notion of reality, one that is widely accepted but is a function of society and culture at a given time.

personality development Development involving the ways that the enduring characteristics that differentiate one person from another change over the life span

social development The way in which individuals' interactions with others and their social relationships grow, change, and remain stable over the course of life

TABLE 1-1 Approaches to Child Development

Orientation	Defining Characteristics	Examples of Questions Asked*
Physical Development	Examines how brain, nervous system, muscles, sensory capabilities, and needs for food, drink, and sleep affect behavior	What determines the sex of a child? (3) What are the long-term consequences of premature birth? (4) What are the benefits of breastfeeding? (4) What are the consequences of early or late sexual maturation? (5)
Cognitive Development	Emphasizes intellectual abilities, including learning, memory, language development, problem solving, and intelligence	What are the earliest memories that can be recalled from infancy? (7) What are the consequences of watching television? (15) Are there benefits to bilingualism? (8) Are there ethnic and racial differences in intelligence? (9) How does an adolescent's egocentrism affect his or her view of the world? (6)
Personality and Social Development	Examines enduring characteristics that differentiate one person from another and how interactions with others and social relationships grow and change over the life span	Do newborns respond differently to their mothers than to others? (4) What is the best procedure for disciplining children? (13) When does a sense of gender develop? (12) How can we promote cross-race friendships? (14) What are the causes of adolescent suicide? (10)

*Numbers in parenthesis indicate in which chapter the question is addressed.

Although most child developmentalists accept these broad periods, the age ranges themselves are in many ways arbitrary. Although some periods have one clear-cut boundary (infancy begins with birth, the preschool period ends with entry into public school, and adolescence starts with sexual maturity), others don't.

For instance, consider the separation between middle childhood and adolescence, which usually occurs around the age of 12. Because the boundary is based on a biological change, the onset of sexual maturation, which varies greatly from one individual to another, the specific age of entry into adolescence varies from one person to the next.

Furthermore, some developmentalists have proposed entirely new developmental periods. For instance, psychologist Jeffrey Arnett argues that adolescence extends into *emerging adulthood,* a period beginning in the late teenage years and continuing into the mid-20s. During emerging adulthood, people are no longer adolescents, but they haven't fully taken on the responsibilities of adulthood. Instead, they are still trying out different identities and engage in self-focused exploration (Schwartz, Côté, & Arnett, 2005; Lamborn & Groh, 2009; Arnett, 2010, 2011).

In short, there are substantial *individual differences* in the timing of events in people's lives. In part, this is a biological fact of life: People mature at different rates and reach developmental milestones at different points. However, environmental factors also play a significant role in determining the age at which a particular event is likely to occur. For example, the typical age at which people develop romantic attachments varies substantially from one culture to another, depending in part on the way that relationships are viewed in a given culture.

It is important to keep in mind, then, that when developmental specialists discuss age ranges, they are talking about averages—the times when people, on average, reach particular milestones. Some children will reach the milestone earlier, some later, and many—in fact, most—will reach it around the time of the average. Such variation becomes noteworthy only when children show substantial deviation from the average. For example, parents whose child begins to speak at a much later age than average might decide to have their son or daughter evaluated by a speech therapist.

Furthermore, as children grow older, they become more likely to deviate from the average and exhibit individual differences. In very young children, a good part of developmental change is genetically determined and unfolds automatically, making development fairly similar in different children. But as children age, environmental factors become more potent, leading to greater variability and individual differences as time passes.

The Links between Topics and Ages. Each of the broad topical areas of child development—physical, cognitive, and social and personality development—plays a role throughout childhood and adolescence. Consequently, some developmental experts focus on physical development during the prenatal period and others on what occurs during adolescence. Some might specialize in social development during the preschool years, while others look at social relationships in middle childhood. And still others might take a broader approach, looking at cognitive development through every period of childhood and adolescence (and beyond).

The variety of topical areas and age ranges studied within the field of child development means that specialists from many diverse backgrounds and areas of expertise consider themselves child developmentalists. Psychologists who study behavior and mental processes, educational researchers, geneticists, and physicians are only some of the people who specialize and conduct research in child development. Furthermore, developmentalists work in a variety of settings, including university departments of psychology, education, human development, and medicine, as well as nonacademic settings as varied as human service agencies and child care centers.

The diversity of specialists working under the broad umbrella of child development brings a variety of perspectives and intellectual richness to the field of child development. In addition, it permits the research findings of the field to be used by practitioners in a wide array of applied professions. Teachers, nurses, social workers, child care providers, and social policy experts all rely on the findings of child development to make decisions about how to improve children's welfare.

DEVELOPMENTAL DIVERSITY AND YOUR LIFE

How Culture, Ethnicity, and Race Influence Development

> *Mayan mothers in Central America are certain that almost constant contact between themselves and their infant children is necessary for good parenting, and they are physically upset if contact is not possible. They are shocked when they see a North American mother lay her infant down, and they attribute the baby's crying to the poor parenting of the North American. (Morelli et al., 1992)*

What are we to make of the two views of parenting expressed above? Is one right and the other wrong? Probably not, if we take into consideration the cultural context in which the mothers are operating. In fact, different cultures and subcultures have their own views of appropriate and inappropriate childrearing, just as they have different developmental goals for children (Tolchinsky, 2003; Feldman & Masalha, 2007; Huijbregts et al., 2009).

Specialists in child development must take into consideration broad cultural factors. For example, as we'll discuss further in Chapter 11, children growing up in Asian societies tend to have a *collectivistic orientation,* focusing on the interdependence among members of society. In contrast, children in Western societies are more likely to have an *individualistic orientation* in which they concentrate on the uniqueness of the individual.

Similarly, child developmentalists must also take into account ethnic, racial, socioeconomic, and gender differences if they are to achieve an understanding of how people change and grow throughout the life span. If these specialists succeed in doing so, not only can they achieve a better understanding of human development, but they may also be able to derive more precise applications for improving the human social condition.

Efforts to understand how diversity affects development have been hindered by difficulties in finding an appropriate vocabulary. For example, members of the research community—as well as society at large—have sometimes used terms such as *race* and *ethnic group* in inappropriate ways. *Race* is a biological concept, which should be employed to refer to classifications based on physical and structural characteristics of species. In contrast, *ethnic group* and *ethnicity* are broader terms, referring to cultural background, nationality, religion, and language.

The concept of race has proven particularly problematic. Although it formally refers to biological factors, race has taken on substantially more meanings—many of them inappropriate—that range from skin color to religion to culture. Moreover, the concept of race is exceedingly imprecise; depending on how it is defined, there are between 3 and 300 races, and no race is genetically distinct. The fact that 99.9% of humans' genetic makeup is identical in all humans makes the question of race seem insignificant (Smedley & Smedley, 2005; Coleman, 2011; Fish, 2011).

In addition, there is little agreement about which names best reflect different races and ethnic groups. Should the term *African American*—which has geographical and cultural implications—be preferred over *black*, which focuses primarily on skin color? Is *Native American* preferable to *Indian*? Is *Hispanic* more appropriate than *Latino*? And how can researchers accurately categorize people with multiethnic backgrounds? The choice of category has important implications for the validity and usefulness of research. The choice even has political implications. For example, the decision

The face of the United States is changing as the proportion of children from different backgrounds is increasing.

to permit people to identify themselves as "multiracial" on U.S. government forms and in the 2000 U.S. Census initially was highly controversial, although it is now routine (Perlmann & Waters, 2002; Saulny, 2011).

As the proportion of minorities in U.S. society continues to increase, it becomes crucial to take the complex issues associated with human diversity into account to fully understand development. In fact, it is only by looking for similarities and differences among various ethnic, cultural, and racial groups that developmental researchers can distinguish principles of development that are universal from ones that are culturally determined. In the years ahead, then, it is likely that child development will move from a discipline that primarily focuses on children with North American and European backgrounds to one that encompasses the development of children around the globe (Matsumoto & Yoo, 2006; Wardle, 2007; Kloep et al., 2009). ■

Watch the **Video** *Chi Hae: Raising an Eleven-Month-Old* in **MyPsychLab**.

Cohort Influences on Development: Developing with Others in a Social World

Bob, born in 1947, is a baby boomer. He was born soon after the end of World War II, when an enormous bulge in the birthrate occurred as soldiers returned to the United States from overseas. He was an adolescent at the height of the civil rights movement and the beginning of protests against the Vietnam War. His mother, Leah, was born in 1922; she is part of the generation that passed its childhood and teenage years in the shadow of the Great Depression. Bob's son, Jon, was born in 1975. Now building a career after graduating from college and starting his own family, he is a member of what has been called Generation X. Jon's younger sister, Sarah, who was born in 1982, is part of the next generation, which sociologists have called the Millennial Generation.

These people are in part products of the social times in which they live. Each belongs to a particular **cohort**, a group of people born at around the same time in the same place. Such major social events as wars, economic upturns and depressions, famines, and epidemics (such as the one due to the AIDS virus) work similar influences on members of a particular cohort (Mitchell, 2002; Dittmann, 2005).

FROM AN EDUCATOR'S PERSPECTIVE:

How would a student's cohort membership affect his or her readiness for school? For example, what would be the benefits and drawbacks of coming from a cohort in which Internet use was routine, compared with earlier cohorts prior to the appearance of the Internet?

Cohort effects provide an example of *history-graded influences,* which are biological and environmental influences associated with a particular historical moment. For instance, children who lived in New York City during the 9/11 terrorist attack on the World Trade Center experienced shared biological and environmental challenges due the attack. Their development is bound to be affected by this normative history-graded event (Bonanno, Galea, Bucciarelli, & Vlahov, 2006; Laugharne, Janca, & Widiger, 2007; Mani & Plunkett, 2011).

In contrast, *age-graded influences* are biological and environmental influences that are similar for individuals in a particular age group, regardless of when or where they are raised. For example, biological events such as puberty and menopause are universal events that occur at relatively the same time throughout all societies. Similarly, a sociocultural event such as entry into formal education can be considered a normative age-graded influence because it occurs in most cultures around age 6.

cohort A group of people born at around the same time in the same place

Development is also affected by *sociocultural-graded influences*, which include ethnicity, social class, subcultural membership, and other factors. For example, sociocultural-graded influences will be considerably different for immigrant children who speak English as a second language than for children born in the United States who speak English as their first language (Rose et al., 2003; Kärtner et al., 2011).

Finally, *non-normative life events* also influence development. Non-normative life events are specific, atypical events that occur in a particular person's life at a time when such events do not happen to most people. For instance, the experience of Louise Brown, who grew up with the knowledge that she was the first person to be conceived using in vitro fertilization, constitutes a non-normative life event. In addition, children can create their own non-normative life events. For instance, a high school girl who enters and wins a national science competition produces a non-normative life event for herself. In a sense, she is actively constructing her own environment, thereby participating in her own development.

Society's view of childhood and what is appropriate to ask of children has changed through the ages. These children worked full time in mines in the early 1900s.