Laura E. Berk is a distinguished professor of psychology at Illinois State University, where she has taught human development to both undergraduate and graduate students for more than three decades. She received her bachelor's degree in psychology from the University of California, Berkeley, and her master's and doctoral degrees in child development and educational psychology from the University of Chicago. She has been a visiting scholar at Cornell University, UCLA, Stanford University, and the University of South Australia.

Berk has published widely on the effects of school environments on children's development, the development of private speech, and the role of make-believe play in development. Her research has been funded by the U.S. Office of Education and the National Institute of Child Health and Human Development. It has appeared in many prominent journals, including Child Development, Developmental Psychology, Merrill-Palmer Quarterly, Journal of Abnormal Child Psychology, Development and Psychopathology, and Early Childhood Research Quarterly. Her empirical studies have attracted the attention of the general public, leading to contributions to Psychology Today and Scientific American. She has also been featured on National Public Radio's Morning Edition and in Parents Magazine, Wondertime, and Reader's Digest.

Berk has served as a research editor of Young Children and as a consulting editor for Early Childhood Research Quarterly. Currently, she is associate editor of the Journal of Cognitive Education and Psychology. She is a frequent contributor to edited volumes on early childhood development, having recently authored chapters on the importance of parenting, on make-believe play, and on the kindergarten child. She has also written the article on social development for The Child: An Encyclopedic Companion; the article on Vygotsky for the Encyclopedia of Cognitive Science; and the chapter on storytelling as a teaching strategy for Voices of Experience: Memorable Talks from the National Institute on the Teaching of Psychology (Association for Psychological Science). She is coauthor of the forthcoming chapter on make-believe play and self-regulation in the Sage Handbook of Play in Early Childhood.


Berk is active in work for children's causes. In addition to service in her home community, she is a member of the national board of directors and chair of the Chicago advisory board of Jumpstart, a nonprofit organization that provides intensive literacy intervention to thousands of low-income preschoolers across the United States, using college and university students as interveners. Berk is a fellow of the American Psychological Association, Division 7: Developmental Psychology.
# Brief Contents

## PART I: Theory and Research in Human Development

1. History, Theory, and Research Strategies  2

## PART II: Foundations of Development

2. Genetic and Environmental Foundations  44
3. Prenatal Development, Birth, and the Newborn Baby  78

## PART III: Infancy and Toddlerhood: The First Two Years

4. Physical Development in Infancy and Toddlerhood  118
5. Cognitive Development in Infancy and Toddlerhood  150
6. Emotional and Social Development in Infancy and Toddlerhood  182

## PART IV: Early Childhood: Two to Six Years

7. Physical and Cognitive Development in Early Childhood  214
8. Emotional and Social Development in Early Childhood  254

## PART V: Middle Childhood: Six to Eleven Years

9. Physical and Cognitive Development in Middle Childhood  288
10. Emotional and Social Development in Middle Childhood  328

## PART VI: Adolescence: The Transition to Adulthood

11. Physical and Cognitive Development in Adolescence  360
12. Emotional and Social Development in Adolescence  400

## PART VII: Early Adulthood

13. Physical and Cognitive Development in Early Adulthood  430
14. Emotional and Social Development in Early Adulthood  462

## PART VIII: Middle Adulthood

15. Physical and Cognitive Development in Middle Adulthood  500
16. Emotional and Social Development in Middle Adulthood  530

## PART IX: Late Adulthood

17. Physical and Cognitive Development in Late Adulthood  562
18. Emotional and Social Development in Late Adulthood  602

## PART X: The End of Life

19. Death, Dying, and Bereavement  638
Contents

A Personal Note to Students  xv
Preface for Instructors  xvi

PART I

Theory and Research in Human Development

chapter 1
History, Theory, and Research Strategies  2

A Scientific, Applied, and Interdisciplinary Field  5

Basic Issues  5
Continuous or Discontinuous Development?  6
One Course of Development or Many?  6
Relative Influence of Nature and Nurture?  7

The Lifespan Perspective: A Balanced Point of View  7
Development Is Lifelong  8
Development Is Multidimensional and Multidirectional  9
Development Is Plastic  9

■ BIOLOGY AND ENVIRONMENT Resilience  10
Development Is Influenced by Multiple, Interacting Forces  10

■ CULTURAL INFLUENCES The Baby Boomers Reshape the Life Course  12

Scientific Beginnings  14
Darwin: Forefather of Scientific Child Study  14
The Normative Period  14
The Mental Testing Movement  15

Mid-Twentieth-Century Theories  15
The Psychoanalytic Perspective  15
Behaviorism and Social Learning Theory  17
Piaget’s Cognitive-Developmental Theory  18

Recent Theoretical Perspectives  20
Information Processing  20
Developmental Cognitive Neuroscience  21
Ethology and Evolutionary Developmental Psychology  22
Vygotsky’s Sociocultural Theory  23
Ecological Systems Theory  24

■ SOCIAL ISSUES: HEALTH Family Chaos Undermines Children’s Well-Being  26

Comparing and Evaluating Theories  27
Studying Development  27

Common Research Methods  28

■ CULTURAL INFLUENCES Immigrant Youths: Adapting to a New Land  32
General Research Designs  34
Designs for Studying Development  35

PART II

Foundations of Development

chapter 2
Genetic and Environmental Foundations  44

Genetic Foundations  46
The Genetic Code  46
The Sex Cells  46
Boy or Girl?  47
Multiple Offspring  47
Patterns of Genetic Inheritance  48
Chromosomal Abnormalities  52

Reproductive Choices  53
Genetic Counseling  53

■ SOCIAL ISSUES: HEALTH The Pros and Cons of Reproductive Technologies  54
Prenatal Diagnosis and Fetal Medicine  56
Adoption  57

Environmental Contexts for Development  59
The Family  59
Socioeconomic Status and Family Functioning  61
Poverty  61
Affluence  62
Beyond the Family: Neighborhoods, Towns, and Cities  63
The Cultural Context  65

■ CULTURAL INFLUENCES The African-American Extended Family  66

Understanding the Relationship Between Heredity and Environment  69
The Question, “How Much?”  70
The Question, “How?”  71

■ BIOLOGY AND ENVIRONMENT A Case of Epigenesis: Smoking During Pregnancy Alters Gene Expression  74

Summary  75

Important Terms and Concepts  77

chapter 3
Prenatal Development, Birth, and the Newborn Baby  78

Prenatal Development  80
Conception  80
Period of the Zygote  80
Period of the Embryo 82
Period of the Fetus 83

Prenatal Environmental Influences 85
Teratogens 85
Other Maternal Factors 92

The Importance of Prenatal Health Care 95

Childbirth 96
The Stages of Childbirth 96
The Baby’s Adaptation to Labor and Delivery 97
The Newborn Baby’s Appearance 97
Assessing the Newborn’s Physical Condition: The Apgar Scale 98

Approaches to Childbirth 98
Natural, or Prepared, Childbirth 99
Home Delivery 99

Medical Interventions 100
Fetal Monitoring 100
Labor and Delivery Medication 100
Cesarean Delivery 101

Preterm and Low-Birth-Weight Infants 101
Preterm versus Small-for-Date Infants 102
Consequences for Caregiving 102
Interventions for Preterm Infants 102

Social Issues: Health A Cross-National Perspective on Health Care and Other Policies for Parents and Newborn Babies 104

Birth Complications, Parenting, and Resilience 105
The Newborn Baby’s Capacities 106
Reflexes 106
States 108

Brain Development 121
Development of Neurons 121
Neurobiological Methods 122
Development of the Cerebral Cortex 124
Sensitive Periods in Brain Development 125

Biology and Environment Brain Plasticity: Insights from Research on Brain-Damaged Children and Adults 126
Changing States of Arousal 128

Cultural Influences Cultural Variation in Infant Sleeping Arrangements 129

Influences on Early Physical Growth 130
Heredity 130
Nutrition 130
Malnutrition 132

Learning Capacities 133
Classical Conditioning 133
Operant Conditioning 134
Habituation 134
Imitation 135

Motor Development 136
The Sequence of Motor Development 137
Motor Skills as Dynamic Systems 137
Fine-Motor Development: Reaching and Grasping 139

Perceptual Development 140
Hearing 140

Biology and Environment “Tuning In” to Familiar Speech, Faces, and Music: A Sensitive Period for Culture-Specific Learning 141
Vision 142
Intermodal Perception 145
Understanding Perceptual Development 146

Summary 148

Important Terms and Concepts 149

Chapter 5 Cognitive Development in Infancy and Toddlerhood 150

Piaget’s Cognitive-Developmental Theory 152
Piaget’s Ideas About Cognitive Change 152
The Sensorimotor Stage 153
Follow-Up Research on Infant Cognitive Development 155
Evaluation of the Sensorimotor Stage 158

Social Issues: Education Baby Learning from TV and Video: The Video Deficit Effect 159

Information Processing 161
A General Model of Information Processing 161
Attention 163
Memory 163

Biology and Environment Infantile Amnesia 164
Categorization 164
Evaluation of Information-Processing Findings 166

The Social Context of Early Cognitive Development 167

Cultural Influences Social Origins of Make-Believe Play 168

Part III Infancy and Toddlerhood: The First Two Years

Chapter 4 Physical Development in Infancy and Toddlerhood 118

Body Growth 120
Changes in Body Size and Muscle–Fat Makeup 120
Individual and Group Differences 121
Changes in Body Proportions 121

Brain Development 121
Development of Neurons 121
Neurobiological Methods 122
Development of the Cerebral Cortex 124
Sensitive Periods in Brain Development 125

Biology and Environment Brain Plasticity: Insights from Research on Brain-Damaged Children and Adults 126
Changing States of Arousal 128

Cultural Influences Cultural Variation in Infant Sleeping Arrangements 129

Influences on Early Physical Growth 130
Heredity 130
Nutrition 130
Malnutrition 132

Learning Capacities 133
Classical Conditioning 133
Operant Conditioning 134
Habituation 134
Imitation 135

Motor Development 136
The Sequence of Motor Development 137
Motor Skills as Dynamic Systems 137
Fine-Motor Development: Reaching and Grasping 139

Perceptual Development 140
Hearing 140

Biology and Environment “Tuning In” to Familiar Speech, Faces, and Music: A Sensitive Period for Culture-Specific Learning 141
Vision 142
Intermodal Perception 145
Understanding Perceptual Development 146

Summary 148

Important Terms and Concepts 149

Chapter 5 Cognitive Development in Infancy and Toddlerhood 150

Piaget’s Cognitive-Developmental Theory 152
Piaget’s Ideas About Cognitive Change 152
The Sensorimotor Stage 153
Follow-Up Research on Infant Cognitive Development 155
Evaluation of the Sensorimotor Stage 158

Social Issues: Education Baby Learning from TV and Video: The Video Deficit Effect 159

Information Processing 161
A General Model of Information Processing 161
Attention 163
Memory 163

Biology and Environment Infantile Amnesia 164
Categorization 164
Evaluation of Information-Processing Findings 166

The Social Context of Early Cognitive Development 167

Cultural Influences Social Origins of Make-Believe Play 168

Part III Infancy and Toddlerhood: The First Two Years

Chapter 4 Physical Development in Infancy and Toddlerhood 118

Body Growth 120
Changes in Body Size and Muscle–Fat Makeup 120
Individual and Group Differences 121
Changes in Body Proportions 121
Individual Differences in Early Mental Development 169
Infant and Toddler Intelligence Tests 169
Early Environment and Mental Development 170
Early Intervention for At-Risk Infants and Toddlers 173
Language Development 174
Theories of Language Development 174
Getting Ready to Talk 175
First Words 176
The Two-Word Utterance Phase 177
Individual and Cultural Differences 177
Supporting Early Language Development 178
Summary 180
Important Terms and Concepts 181

Chapter 6
Emotional and Social Development in Infancy and Toddlerhood 182

Erikson’s Theory of Infant and Toddler Personality 184
Basic Trust versus Mistrust 184
Autonomy versus Shame and Doubt 184
Emotional Development 185
Development of Basic Emotions 185
Biology and Environment Parental Depression and Child Development 186
Understanding and Responding to the Emotions of Others 188
Emergence of Self-Conscious Emotions 188
Beginnings of Emotional Self-Regulation 189
Temperament and Development 190
The Structure of Temperament 190
Measuring Temperament 191
Stability of Temperament 191
Biology and Environment Development of Shyness and Sociability 192
Genetic and Environmental Influences 193
Temperament and Child Rearing: The Goodness-of-Fit Model 194
Development of Attachment 195
Bowlby’s Ethological Theory 196
Measuring the Security of Attachment 197
Stability of Attachment 198
Cultural Variations 198
Factors That Affect Attachment Security 199
Multiple Attachments 201
Biology and Environment Does Child Care in Infancy Threaten Attachment Security and Later Adjustment? 202
Piaget and Education 233
Vygotsky’s Sociocultural Theory 233
Private Speech 233
Social Origins of Early Childhood Cognition 234
Vygotsky and Education 235
Evaluation of Vygotsky’s Theory 235
Cultural Influences Children in Village and Tribal Cultures Observe and Participate in Adult Work 236
Information Processing 236
Attention 236
Memory 237
The Young Child’s Theory of Mind 238
Early Childhood Literacy 240

Part IV
Early Childhood: Two to Six Years

Chapter 7
Physical and Cognitive Development in Early Childhood 214

Physical Development 216
A Changing Body and Brain 216
Skeletal Growth 217
Brain Development 217
Influences on Physical Growth and Health 219
Heredity and Hormones 219
Nutrition 219
Infectious Disease 220
Childhood Injuries 221
Motor Development 223
Gross-Motor Development 223
Fine-Motor Development 224
Individual Differences in Motor Skills 225
Cognitive Development 226
Piaget’s Theory: The Preoperational Stage 226
Advances in Mental Representation 226
Make-Believe Play 226
Symbol–Real-World Relations 227
Limitations of Preoperational Thought 228
Follow-Up Research on Preoperational Thought 230
Evaluation of the Preoperational Stage 231
Piaget and Education 233
Vygotsky’s Sociocultural Theory 233
Private Speech 233
Social Origins of Early Childhood Cognition 234
Vygotsky and Education 235
Evaluation of Vygotsky’s Theory 235
Cultural Influences Children in Village and Tribal Cultures Observe and Participate in Adult Work 236
Information Processing 236
Attention 236
Memory 237
The Young Child’s Theory of Mind 238
Early Childhood Literacy 240
Contents

Biology and Environment

“Mindblindness” and Autism 241
Early Childhood Mathematical Reasoning 242

Individual Differences in Mental Development

Home Environment and Mental Development 244
Preschool, Kindergarten, and Child Care 244
Educational Media 246

Language Development 248
Vocabulary 248
Grammar 249
Conversation 250
Supporting Language Development in Early Childhood 250

Summary 251
Important Terms and Concepts 253

Chapter 8

Emotional and Social Development in Early Childhood 254

Erikson’s Theory: Initiative versus Guilt 256
Self-Understanding 256
Foundations of Self-Concept 256

Cultural Influences Cultural Variations in Personal Storytelling: Implications for Early Self-Concept 257
Emergence of Self-Esteem 257

Emotional Development 258
Understanding Emotion 258
Emotional Self-Regulation 259
Self-Conscious Emotions 259
Empathy and Sympathy 260

Peer Relations 261
Advances in Peer Sociability 261
First Friendships 262
Peer Relations and School Readiness 263
Parental Influences on Early Peer Relations 263

Foundations of Morality 264
The Psychoanalytic Perspective 264
Social Learning Theory 265

Cultural Influences Ethnic Differences in the Consequences of Physical Punishment 267
The Cognitive-Developmental Perspective 268
The Other Side of Morality: Development of Aggression 269

Gender Typing 273
Gender-Stereotyped Beliefs and Behavior 273
Biological Influences on Gender Typing 273
Environmental Influences on Gender Typing 274

Social Issues: Education Young Children Learn About Gender Through Mother–Child Conversations 275
Gender Identity 276
Reducing Gender Stereotyping in Young Children 278

Summary 284
Important Terms and Concepts 285

Milestones Development in Early Childhood 286

Part V

Middle Childhood: Six to Eleven Years

Chapter 9

Physical and Cognitive Development in Middle Childhood 288

Physical Development 290

Body Growth 290

Common Health Problems 290
Nutrition 291
Overweight and Obesity 291
Vision and Hearing 293
Illnesses 293
Unintentional Injuries 294

Motor Development and Play 294
Gross-Motor Development 294
Fine-Motor Development 295
Sex Differences 296
Games with Rules 296
Shadows of Our Evolutionary Past 297

Social Issues: Education School Recess—A Time to Play, a Time to Learn 298
Physical Education 298

Cognitive Development 299

Piaget’s Theory: The Concrete Operational Stage 299
Concrete Operational Thought 299
Limitations of Concrete Operational Thought 301
Follow-Up Research on Concrete Operational Thought 301
Evaluation of the Concrete Operational Stage 302

Information Processing 302
Working-Memory Capacity 302
Executive Function 303
Attention 303

Social Issues: Education Young Children Learn About Gender Through Mother–Child Conversations 275
Gender Identity 276
Reducing Gender Stereotyping in Young Children 278

Biology and Environment Children with Attention-Deficit Hyperactivity Disorder 304
Memory Strategies 304
Knowledge and Memory 305
Contents

Culture, Schooling, and Memory Strategies 306
The School-Age Child’s Theory of Mind 306
Cognitive Self-Regulation 307
Applications of Information Processing to Academic Learning 307

Individual Differences in Mental Development 309
Defining and Measuring Intelligence 309
Recent Efforts to Define Intelligence 310
Explaining Individual and Group Differences in IQ 312

SOCIAL ISSUES: HEALTH  Emotional Intelligence 313

Language Development 316
Vocabulary 316
Grammar 316
Pragmatics 316
Learning Two Languages 317

Learning in School 318
Class Size 318
Educational Philosophies 319
Teacher–Student Interaction 320

SOCIAL ISSUES: EDUCATION  Magnet Schools: Equal Access to High-Quality Education 321
Grouping Practices 321
Teaching Children with Special Needs 322
How Well Educated Are U.S. Children? 323

Summary 325
Important Terms and Concepts 327

chapter 10
Emotional and Social Development in Middle Childhood 328

Erikson’s Theory: Industry versus Inferiority 330
Self-Understanding 330
Self-Concept 330
Self-Esteem 331
Influences on Self-Esteem 331

Emotional Development 335
Self-Conscious Emotions 335
Emotional Understanding 335
Emotional Self-Regulation 336

Moral Development 336
Moral and Social-Convention Understanding 336
Understanding Individual Rights 337
Understanding Diversity and Inequality 337

Peer Relations 339
Peer Groups 339
Friendships 340
Peer Acceptance 341

SOCIAL ISSUES: ENVIRONMENT  Bullying and Their Victims 342

Gender Typing 343
Gender-Stereotyped Beliefs 343
Gender Identity and Behavior 344

Family Influences 345
Parent–Child Relationships 345
Siblings 345
Only Children 346
Divorce 346
Blended Families 349
Maternal Employment and Dual-Earner Families 350

Some Common Problems of Development 352
Fears and Anxieties 352
Child Sexual Abuse 352

SOCIAL ISSUES: HEALTH  Impact of Ethnic and Political Violence on Children 353
Fostering Resilience in Middle Childhood 354

SOCIAL ISSUES: HEALTH  Children’s Eyewitness Testimony 355

Summary 356
Important Terms and Concepts 357

MILESTONES  Development in Middle Childhood 358

PART VI
Adolescence: The Transition to Adulthood

chapter 11
Physical and Cognitive Development in Adolescence 360

PHYSICAL DEVELOPMENT 362
Conceptions of Adolescence 362
The Biological Perspective 362
The Social Perspective 362
A Balanced Point of View 362

Puberty: The Physical Transition to Adulthood 363
Hormonal Changes 363
Body Growth 363
Motor Development and Physical Activity 364
Sexual Maturation 365
Individual Differences in Pubertal Growth 366
Brain Development 367
Changing States of Arousal 368

The Psychological Impact of Pubertal Events 368
Reactions to Pubertal Changes 368
Pubertal Change, Emotion, and Social Behavior 369
Pubertal Timing 370

Health Issues 371
Nutritional Needs 371
Eating Disorders 372
Sexuality 373

SOCIAL ISSUES: HEALTH  Lesbian, Gay, and Bisexual Youths: Coming Out to Oneself and Others 376
Sexually Transmitted Diseases 376
Adolescent Pregnancy and Parenthood 378
Substance Use and Abuse 380

COGNITIVE DEVELOPMENT 382
Piaget’s Theory: The Formal Operational Stage 382
Hypothetico-Deductive Reasoning 382
Propositional Thought 383
Follow-Up Research on Formal Operational Thought 383
An Information-Processing View of Adolescent Cognitive Development 384
Scientific Reasoning: Coordinating Theory with Evidence 385
How Scientific Reasoning Develops 385
Consequences of Adolescent Cognitive Changes 386
Self-Consciousness and Self-Focusing 386
Idealism and Criticism 387
Decision Making 387
Sex Differences in Mental Abilities 388
Verbal Abilities 388
Mathematical Abilities 388

BIOLOGY AND ENVIRONMENT 389
Sex Differences in Spatial Abilities 390

Learning in School 391
School Transitions 391
Academic Achievement 392

SOCIAL ISSUES: EDUCATION 394
Media Multitasking Disrupts Attention and Learning 394
Dropping Out 396

Summary 397
Important Terms and Concepts 399

CHAPTER 12
Emotional and Social Development in Adolescence 400

Erikson’s Theory: Identity versus Role Confusion 402
Self-Understanding 402
Changes in Self-Concept 402
Changes in Self-Esteem 402
Paths to Identity 403
Identity Status and Psychological Well-Being 404
Factors Affecting Identity Development 404

Moral Development 405
CULTURAL INFLUENCES 406
Identity Development Among Ethnic Minority Adolescents 406
Kohlberg’s Theory of Moral Development 407
Are There Sex Differences in Moral Reasoning? 409
Coordinating Moral, Social-Conventional, and Personal Concerns 409
Influences on Moral Reasoning 410
Moral Reasoning and Behavior 411
Religious Involvement and Moral Development 412
Further Challenges to Kohlberg’s Theory 412

SOCIAL ISSUES: EDUCATION 413
Development of Civic Engagement 413

Gender Typing 414

The Family 415
Parent–Child Relationships 415
Family Circumstances 416
Siblings 416

Peer Relations 417
Friendships 417
Cliques and Crowds 419
Dating 420

Problems of Development 421
Depression 421
Suicide 422
Delinquency 423

BIOLOGY AND ENVIRONMENT 424
Two Routes to Adolescent Delinquency 424

Summary 426
Important Terms and Concepts 427

MILESTONES 428
Development in Adolescence 428

PART VII
Early Adulthood

CHAPTER 13
Physical and Cognitive Development in Early Adulthood 430

PHYSICAL DEVELOPMENT 432
Biological Aging Is Under Way in Early Adulthood 432
Aging at the Level of DNA and Body Cells 432

BIOLOGY AND ENVIRONMENT 433
Telomere Length: A Marker of the Impact of Life Circumstances on Biological Aging 433
Aging at the Level of Tissues and Organs 434

Physical Changes 434
Cardiovascular and Respiratory Systems 434
Motor Performance 436
Immune System 437
Reproductive Capacity 437

Health and Fitness 438
Nutrition 439

SOCIAL ISSUES: HEALTH 440
The Obesity Epidemic: How Americans Became the Heaviest People in the World 440
Exercise 443
Substance Abuse 444
Sexuality 445
Psychological Stress 449
COGNITIVE DEVELOPMENT 450
Changes in the Structure of Thought 450
Perry’s Theory: Epistemic Cognition 451
Laboviu-Vief’s Theory: Pragmatic Thought and Cognitive-Affective Complexity 452
Expertise and Creativity 453
The College Experience 454
Psychological Impact of Attending College 454
Dropping Out 455
Vocational Choice 455
Selecting a Vocation 455
Factors Influencing Vocational Choice 456
■ SOCIAL ISSUES: EDUCATION Masculinity at Work: Men Who Choose Nontraditional Careers 458
Vocational Preparation of Non-College-Bound Young Adults 459
Summary 460
Important Terms and Concepts 461

chapter 14
Emotional and Social Development in Early Adulthood 462
A Gradual Transition: Emerging Adulthood 464
Unprecedented Exploration 464
Cultural Change, Cultural Variation, and Emerging Adulthood 466
■ CULTURAL INFLUENCES Is Emerging Adulthood Really a Distinct Period of Development? 467
Risk and Resilience in Emerging Adulthood 467
Erikson’s Theory: Intimacy versus Isolation 469
Other Theories of Adult Psychosocial Development 470
Levinson’s Seasons of Life 470
Vaillant’s Adaptation to Life 470
The Social Clock 471
Close Relationships 472
Romantic Love 472
■ SOCIAL ISSUES: HEALTH Childhood Attachment Patterns and Adult Romantic Relationships 474
Friendships 476
Loneliness 477
The Family Life Cycle 478
Leaving Home 478
Joining of Families in Marriage 479
■ SOCIAL ISSUES: HEALTH Partner Abuse 482
Parenthood 483
The Diversity of Adult Lifestyles 486
Singlehood 486
Cohabitation 487
Childlessness 488
Divorce and Remarriage 489
Varied Styles of Parenthood 490

Career Development 492
Establishing a Career 492
Women and Ethnic Minorities 493
Combining Work and Family 494
Summary 496
Important Terms and Concepts 497

MILESTONES Development in Early Adulthood 498

PART VIII
Middle Adulthood

chapter 15
Physical and Cognitive Development in Middle Adulthood 500

PHYSICAL DEVELOPMENT 502
Physical Changes 502
Vision 502
Hearing 503
Skin 503
Muscle–Fat Makeup 504
Skeleton 504
Reproductive System 504
■ BIOLOGY AND ENVIRONMENT Anti-Aging Effects of Dietary Caloric Restriction 505
■ CULTURAL INFLUENCES Menopause as a Biocultural Event 508
Health and Fitness 508
Sexuality 509
Illness and Disability 509
Hostility and Anger 513
Adapting to the Physical Challenges of Midlife 514
Stress Management 514
Exercise 515
An Optimistic Outlook 516
Gender and Aging: A Double Standard 516

COGNITIVE DEVELOPMENT 517
Changes in Mental Abilities 517
Cohort Effects 517
Crystallized and Fluid Intelligence 518
Individual and Group Differences 519
Information Processing 520
Speed of Processing 520
Attention 521
Memory 522
■ SOCIAL ISSUES: EDUCATION The Art of Acting Improves Memory in Older Adults 523
Practical Problem Solving and Expertise 524
Creativity 524
Information Processing in Context 525
Vocational Life and Cognitive Development 525
Adult Learners: Becoming a Student in Midlife 526
  Characteristics of Returning Students 526
  Supporting Returning Students 526
Summary 528
Important Terms and Concepts 529

Chapter 16
Emotional and Social Development in Middle Adulthood 530
Erikson’s Theory: Generativity versus Stagnation 532
  SOCIAL ISSUES: HEALTH Generative Adults Tell Their Life Stories 534
Other Theories of Psychosocial Development in Midlife 535
  Levinson’s Seasons of Life 535
  Vaillant’s Adaptation to Life 536
  Is There a Midlife Crisis? 536
  Stage or Life Events Approach 537
Stability and Change in Self-Concept and Personality 538
  Possible Selves 538
  Self-Acceptance, Autonomy, and Environmental Mastery 538
  Coping with Daily Stressors 539
  BIOLOGY AND ENVIRONMENT What Factors Promote Psychological Well-Being in Midlife? 540
  Gender Identity 540
  Individual Differences in Personality Traits 542
Relationships at Midlife 543
  Marriage and Divorce 543
  Changing Parent–Child Relationships 544
  Grandparenthood 545
  Middle-Aged Children and Their Aging Parents 547
  SOCIAL ISSUES: HEALTH Grandparents Rearing Grandchildren: The Skipped-Generation Family 548
  Siblings 552
  Friendships 552
Vocational Life 553
  Job Satisfaction 553
  Career Development 554
  Career Change at Midlife 555
  Unemployment 556
  Planning for Retirement 556
Summary 558
Important Terms and Concepts 559

MILESTONES  Development in Middle Adulthood 560

Part IX
Late Adulthood

Chapter 17
Physical and Cognitive Development in Late Adulthood 562

Physical Development 564
  Life Expectancy 564
    Variations in Life Expectancy 564
    Life Expectancy in Late Adulthood 565
    Maximum Lifespan 566
  BIOLOGY AND ENVIRONMENT What Can We Learn About Aging from Centenarians? 566
  Physical Changes 567
    Nervous System 568
    Sensory Systems 568
    Cardiovascular and Respiratory Systems 570
    Immune System 571
    Sleep 571
    Physical Appearance and Mobility 571
    Adapting to Physical Changes of Late Adulthood 572
  Health, Fitness, and Disability 575
    CULTURAL INFLUENCES Cultural Variations in Sense of Usefulness in Late Life 576
    Nutrition and Exercise 577
    Sexuality 578
    Physical Disabilities 579
    Mental Disabilities 582
    SOCIAL ISSUES: HEALTH Interventions for Caregivers of Older Adults with Dementia 586
    Health Care 588

Cognitive Development 589
  Memory 591
    Deliberate versus Automatic Memory 591
    Associative Memory 591
    Remote Memory 592
    Prospective Memory 593
  Language Processing 593
  Problem Solving 594
  Wisdom 595
  Factors Related to Cognitive Maintenance Change 596
  Cognitive Interventions 597
  Lifelong Learning 597
    Types of Programs 597
    Benefits of Continuing Education 599
Summary 599
Important Terms and Concepts 601
Chapter 18
Emotional and Social Development in Late Adulthood

Erikson's Theory: Ego Integrity versus Despair
Other Theories of Psychosocial Development in Late Adulthood
Peck's Tasks of Ego Integrity and Joan Erikson's Gerotranscendence
Labouvie-Vief's Emotional Expertise
Reminiscence
Stability and Change in Self-Concept and Personality
Secure and Multifaceted Self-Concept
Cultural Influences: The New Old Age
Agreeableness, Acceptance of Change, and Openness to Experience
Spirituality and Religiosity
Biology and Environment: Religious Involvement and Quality of Life in the Final Year
Contextual Influences on Psychological Well-Being
Control versus Dependency
Physical Health
Negative Life Changes
Social Support
Social Issues: Health: Elder Suicide
A Changing Social World
Social Theories of Aging
Social Contexts of Aging: Communities, Neighborhoods, and Housing
Relationships in Late Adulthood
Marriage
Gay and Lesbian Partnerships
Divorce, Remarriage, and Cohabitation
Widowhood
Never-Married, Childless Older Adults
Siblings
Friendships
Relationships with Adult Children
Relationships with Adult Grandchildren and Great-Grandchildren
Elder Maltreatment
Retirement
The Decision to Retire
Adjustment to Retirement
Leisure and Volunteer Activities
Optimal Aging
Summary
Important Terms and Concepts
Milestones: Development in Late Adulthood

Part X
The End of Life

Chapter 19
Death, Dying, and Bereavement

How We Die
Physical Changes
Defining Death
Death with Dignity
Understanding of and Attitudes Toward Death
Childhood
Adolescence
Adulthood
Death Anxiety
Thinking and Emotions of Dying People
Do Stages of Dying Exist?
Contextual Influences on Adaptations to Dying
A Place to Die
Home
Hospital
Nursing Home
The Hospice Approach
Biology and Environment: Music as Palliative Care for Dying Patients
The Right to Die
Passive Euthanasia
Voluntary Active Euthanasia
Voluntary Active Euthanasia: Lessons from Australia and the Netherlands
Assisted Suicide
Bereavement: Coping with the Death of a Loved One
Grief Process
Personal and Situational Variations
Bereavement Interventions
Cultural Influences: Cultural Variations in Mourning Behavior
Death Education
Summary
Important Terms and Concepts
Glossary
References
Name Index
Subject Index
A Personal Note to Students

My more than 30 years of teaching human development have brought me in contact with thousands of students like you—students with diverse college majors, future goals, interests, and needs. Some are affiliated with my own field, psychology, but many come from other related fields—education, sociology, anthropology, family studies, social service, nursing, and biology, to name just a few. Each semester, my students’ aspirations have proved to be as varied as their fields of study. Many look toward careers in applied work—counseling, caregiving, nursing, social work, school psychology, and program administration. Some plan to teach, and a few want to do research. Most hope someday to become parents, whereas others are already parents who come with a desire to better understand and rear their children. And almost all arrive with a deep curiosity about how they themselves developed from tiny infants into the complex human beings they are today.

My goal in preparing this sixth edition of Development Through the Lifespan is to provide a textbook that meets the instructional goals of your course as well as your personal interests and needs. To achieve these objectives, I have grounded this book in a carefully selected body of classic and current theory and research. In addition, the text highlights the lifespan perspective on development and the interacting contributions of biology and environment to the developing person. It also illustrates commonalities and differences among ethnic groups and cultures and discusses the broader social contexts in which we develop. I have provided a unique pedagogical program that will assist you in mastering information, integrating various aspects of development, critically examining controversial issues, applying what you have learned, and relating the information to your own life.

I hope that learning about human development will be as rewarding for you as I have found it over the years. I would like to know what you think about both the field of human development and this book. I welcome your comments; please feel free to send them to me at Department of Psychology, Box 4620, Illinois State University, Normal, IL 61790.

Laura E. Berk
Preface for Instructors

My decision to write Development Through the Lifespan was inspired by a wealth of professional and personal experiences. First and foremost were the interests and concerns of hundreds of students of human development with whom I have worked in over three decades of college teaching. Each semester, their insights and questions have revealed how an understanding of any single period of development is enriched by an appreciation of the entire lifespan. Second, as I moved through adult development myself, I began to think more intensely about factors that have shaped and reshaped my own life course—family, friends, mentors, co-workers, community, and larger society. My career well-established, my marriage having stood the test of time, and my children launched into their adult lives, I felt that a deeper grasp of these multiple, interacting influences would help me better appreciate where I had been and where I would be going in the years ahead. I was also convinced that such knowledge could contribute to my becoming a better teacher, scholar, family member, and citizen. And because teaching has been so central and gratifying to my work life, I wanted to bring to others a personally meaningful understanding of lifespan development.

The years since Development Through the Lifespan first appeared have been a period of considerable expansion and change in theory and research. This sixth edition represents a major revision and expansion of both content and pedagogy. The links among theory, research, and applications are strengthened. As researchers intensify their efforts to generate findings relevant to real-life situations, I have placed even greater weight on social policy issues and sound theory- and research-based applications. Further applications are provided in the Applying What We Know tables, which give students concrete ways of building bridges between their learning and the real world.

The role of active student learning is made more explicit. TAKE A MOMENT..., a feature built into the chapter narrative, asks students to think deeply and critically or to engage in an exercise or application as they read. Ask Yourself questions at the end of each major section have been thoroughly revised and expanded to promote four approaches to engaging actively with the subject matter—Review, Connect, Apply, and Reflect. This feature assists students in thinking about what they have learned from multiple vantage points. A new LOOK AND LISTEN feature asks students to observe what real children, adolescents, and adults say and do; speak with them or with professionals invested in their well-being; and inquire into community programs and practices that influence lifespan development. In addition, highlighting of key terms within the text narrative reinforces student learning in context.

Text Philosophy

The basic approach of this book has been shaped by my own professional and personal history as a teacher, researcher, and parent. It consists of seven philosophical ingredients that I regard as essential for students to emerge from a course with a thorough understanding of lifespan development. Each theme is woven into every chapter:

1. An understanding of the diverse array of theories in the field and the strengths and shortcomings of each. The first chapter begins by emphasizing that only knowledge of multiple theories can do justice to the richness of human
development. As I take up each age period and domain of development, I present a variety of theoretical perspectives, indicate how each highlights previously overlooked aspects of development, and discuss research that evaluates it. Consideration of contrasting theories also serves as the context for an evenhanded analysis of many controversial issues.

2. A grasp of the lifespan perspective as an integrative approach to development. I introduce the lifespan perspective as an organizing framework in the first chapter and refer to and illustrate its assumptions throughout the text, in an effort to help students construct an overall vision of development from conception to death.

3. Knowledge of both the sequence of human development and the processes that underlie it. Students are provided with a discussion of the organized sequence of development along with processes of change. An understanding of process—how complex combinations of biological and environmental events produce development—has been the focus of most recent research. Accordingly, the text reflects this emphasis. But new information about the timetable of change has also emerged. In many ways, the very young and the old have proved to be far more competent than they were believed to be in the past. In addition, many milestones of adult development, such as finishing formal education, entering a career, getting married, having children, and retiring, have become less predictable. Current evidence on the sequence and timing of development, along with its implications for process, is presented for all periods of the lifespan.

4. An appreciation of the impact of context and culture on human development. A wealth of research indicates that people live in rich physical and social contexts that affect all domains of development. Throughout the book, students travel to distant parts of the world as I review a growing body of cross-cultural evidence. The text narrative also discusses many findings on socioeconomically and ethnically diverse people within the United States. Furthermore, the impact of historical time period and cohort membership receives continuous attention. In this vein, gender issues—the distinctive but continually evolving experiences, roles, and life paths of males and females—are granted substantial emphasis. Besides highlighting the effects of immediate settings, such as family, neighborhood, and school, I make a concerted effort to underscore the influence of larger social structures—societal values, laws, and government policies and programs—on lifelong well-being.

5. An understanding of the joint contributions of biology and environment to development. The field recognizes more powerfully than ever before the joint roles of hereditary/constitutional and environmental factors—that these contributions to development combine in complex ways and cannot be separated in a simple manner. Numerous examples of how biological dispositions can be maintained as well as transformed by social contexts are presented throughout the book.

6. A sense of the interdependency of all domains of development—physical, cognitive, emotional, and social. Every chapter emphasizes an integrated approach to human development. I show how physical, cognitive, emotional, and social development are interwoven. Within the text narrative, and in a special series of Ask Yourself questions at the end of major sections, students are referred to other sections of the book to deepen their grasp of relationships among various aspects of change.

7. An appreciation of the interrelatedness of theory, research, and applications. Throughout this book, I emphasize that theories of human development and the research stimulated by them provide the foundation for sound, effective practices with children, adolescents, and adults. The link among theory, research, and applications is reinforced by an organizational format in which theory and research are presented first, followed by practical implications. In addition, a current focus in the field—harnessing knowledge of human development to shape social policies that support human needs throughout the lifespan—is reflected in every chapter. The text addresses the current condition of children, adolescents, and adults in the United States and elsewhere in the world and shows how theory and research have combined with public interest to spark successful interventions. Many important applied topics are considered, such as family planning, infant mortality, maternal employment and child care, teenage pregnancy and parenthood, domestic violence, exercise and adult health, religiosity and well-being, lifelong learning, grandparents rearing grandchildren, caring for aging adults with dementia, adjustment to retirement, optimal aging, and palliative care for the dying.

**Text Organization**

I have chosen a chronological organization for *Development Through the Lifespan*. The book begins with an introductory chapter that describes the scientific history of the field, influential theories, and research strategies. It is followed by two chapters on the foundations of development. Chapter 2 combines an overview of genetic and environmental contexts into a single integrated discussion of these multifaceted influences on development. Chapter 3 is devoted to prenatal development, birth, and the newborn baby. With this foundation, students are ready to look closely at seven major age periods: infancy and toddlerhood (Chapters 4, 5, and 6), early childhood (Chapters 7 and 8), middle childhood (Chapters 9 and 10), adolescence (Chapters 11 and 12), early adulthood (Chapters 13 and 14), middle adulthood (Chapters 15 and 16), and late adulthood (Chapters 17 and 18). Topical chapters within each chronological division cover
physical development, cognitive development, and emotional and social development. The book concludes with a chapter on death, dying, and bereavement (Chapter 19).

The chronological approach assists students in thoroughly understanding each age period. It also eases the task of integrating the various domains of development because each is discussed in close proximity. At the same time, a chronologically organized book requires that theories covering several age periods be presented piecemeal. This creates a challenge for students, who must link the various parts together. To assist with this task, I frequently remind students of important earlier achievements before discussing new developments, referring back to related sections with page references. Also, chapters or sections devoted to the same topic (for example, cognitive development) are similarly organized, making it easier for students to draw connections across age periods and construct an overall view of developmental change.

New Coverage in the Sixth Edition

Lifespan development is a fascinating and ever-changing field of study, with constantly emerging new discoveries and refinements in existing knowledge. The sixth edition represents this burgeoning contemporary literature, with over 2,000 new citations. Cutting-edge topics throughout the text underscore the book's major themes. Here is a sampling:

CHAPTER 1: Updated Biology and Environment box on resilience • Updated section on developmental cognitive neuroscience • Increased coverage of evolutionary developmental psychology, with special attention to the adaptiveness of human longevity • Expanded illustrations at all levels of Bronfenbrenner's ecological model • New Social Issues: Health box on how family chaos undermines children's well-being • Updated Cultural Influences box on immigrant youths • Clarified explanation of sequential designs

CHAPTER 2: Updated Social Issues: Health box on the pros and cons of reproductive technologies • Updated section on development of adopted children • Enhanced attention to the impact of poverty on development • Expanded introduction to family influences on development, including the importance of coparenting • Updated research on neighborhood influences on children's physical and mental health • Current statistics on the condition of children, families, and the aged in the United States compared with other Western nations • Introduction to the concept of gene–environment interaction, with illustrative research findings • Expanded section on epigenesis, including new examples of environmental influences on gene expression • New Biology and Environment box highlighting a case of epigenesis—prenatal smoking modifies gene expression

CHAPTER 3: Enhanced attention to fetal brain development, sensory capacities, and behavior • Expanded and updated consideration of a wide range of teratogens • New evidence on the long-term consequences of emotional stress during pregnancy • New findings on older maternal age and prenatal and birth complications • Updated evidence on the contributions of doula support to the birth process and to newborn adjustment • New research on parenting and development of preterm and low-birth-weight infants • Expanded and updated Social Issues: Health box on health care and other policies for parents and newborn babies, including cross-national infant mortality rates and the importance of generous parental leave • New Social Issues: Health box on the Nurse–Family Partnership—reducing maternal stress and enhancing child development through social support • Updated findings on the roles of impaired brain functioning, maternal smoking, and maternal drug abuse in sudden infant death syndrome (SIDS) • New evidence on the role of sleep in infant learning • New research on the impact of "proximal care"—extensive holding of young babies—in reducing infant crying • Updated research on touch sensitivity in newborns, including techniques for reducing infant stress to painful medical procedures

CHAPTER 4: Updated introduction to major methods of assessing brain functioning, including the EEG geodesic sensor net (GSN) and near-infrared spectroscopy (NIRS) • Updated discussion of advances in brain development, with special attention to the prefrontal cortex • New research on children adopted from Romanian orphanages, including neurobiological evidence bearing on the question of whether infancy is a sensitive period of development • Updated Cultural Influences box on cultural variation in infant sleeping arrangements • Updated section on breastfeeding • New dynamic systems research on development of walking and reaching • Updated evidence on how caregiving practices and physical surroundings contribute to development of infant motor skills • Enhanced attention to cultural influences—including infant sleep and motor development • New evidence on the perceptual narrowing effect in speech, music, and species-related face perception, and in gender- and race-related face perception • Expanded and updated section on intermodal perception, including its contributions to all aspects of psychological development

CHAPTER 5: Revised and updated section on infant and toddler imitation, revealing toddlers' ability to infer others' intentions • New section on symbolic understanding, including toddlers' developing grasp of words and pictures as symbolic tools • New Social Issues: Education box on baby learning from TV and video, including discussion of the video deficit effect • Revised section introducing information-processing concepts, including working memory, automatic processes, speed of processing, and executive function • New evidence on similarity of infant and toddler recall memory to memory processing in older children and adults • Revised and updated section on infant and toddler
categorization skills ∗ New research on babies’ joint attention and preverbal gestures, revealing their developing capacity to participate in cooperative processes necessary for effective communication ∗ Updated findings on toddlers’ earliest spoken words, including cultural variations ∗ New findings on adult–child conversation and early vocabulary development, with special attention to SES differences

CHAPTER 6: New research on consequences of effortful control—the self-regulatory dimension of temperament—for cognitive, emotional, and social development ∗ Special attention to the role of child genotype in parenting effects on temperament ∗ Updated evidence on contextual factors that contribute to changes in attachment pattern over time ∗ Revised and updated section on consequences of early availability of a consistent caregiver for attachment security, emotion processing, and adjustment, highlighting studies of children adopted from Eastern European orphanages ∗ New evidence on contributions of fathers’ play to attachment security and emotional and social adjustment ∗ Updated findings on employed fathers’ increased involvement in caregiving ∗ Revised and updated Social Issues: Health box on child care, attachment, and later development ∗ New evidence on toddlers’ scale errors, with implications for body self-awareness ∗ Updated research on the impact of sensitive caregiving on early self-development

CHAPTER 7: Increased attention to brain development in early childhood, with special attention to the prefrontal cortex and executive function ∗ Updated statistics and research on the health status of U.S. young children, including tooth decay, childhood immunizations, and overall health status ∗ New research on development of handedness, including cultural variations ∗ Expanded attention to the impact of adult mealtime practices on children’s eating behavior ∗ New evidence on preschoolers’ magical beliefs ∗ Revised and updated section on preschoolers’ understanding of symbol–real-world relations ∗ New research on cultural variations in effective scaffolding ∗ New Social Issues: Education box on children’s questions as a catalyst for cognitive development ∗ Updated discussion of gains in executive function in early childhood, including attention, inhibition, and planning ∗ Recent findings on toddlers’ early, implicit false-belief understanding and its relationship to preschoolers explicit grasp of false belief ∗ New evidence on cognitive attainments and social experiences that contribute to mastery of false belief ∗ Enhanced discussion of SES differences in emergent literacy and math knowledge ∗ Updated discussion of the effects of television and computers on academic learning ∗ New research on preschoolers’ strategies for word learning, including cultural variations

CHAPTER 8: Updated consideration of emotional self-regulation in early childhood, including the influence of temperament and parenting ∗ Enhanced Cultural Influences box on ethnic differences in the consequences of physical punishment ∗ New section on the role of positive peer relations in school readiness ∗ New longitudinal evidence on the relationship of early corporal punishment to later behavior problems ∗ Enhanced attention to aggressive children’s distorted view of the social world ∗ Updated discussion of parent training programs to reduce child conduct problems, with special attention to Incredible Years ∗ New Social Issues: Education box on young children’s learning about gender through mother–child conversations ∗ New section on cultural variations in communication within gender-segregated peer groups ∗ New findings on the harmful impact of parental psychological control on children’s adjustment ∗ Updated consideration of consequences of child maltreatment, including new evidence on central nervous system damage

CHAPTER 9: Revised and updated section on overweight and obesity, including current U.S. prevalence rates, international comparisons, and coverage of contributing factors and consequences ∗ Updated statistics on physical activity and fitness among U.S. school-age children ∗ New sections on working-memory capacity and executive function in middle childhood, with implications for academic learning ∗ Revised and updated Biology and Environment box on children with attention-deficit hyperactivity disorder ∗ New research on development of planning in middle childhood ∗ Updated evidence on the school-age child’s theory of mind ∗ Updated Social Issues: Education box on emotional intelligence ∗ Discussion of secular trends in IQ, including implications for understanding ethnic variations in IQ ∗ Attention to the impact of the U.S. No Child Left Behind Act on quality of U.S. education ∗ Updated research on academic achievement of U.S. children with limited English proficiency ∗ Expanded consideration of the impact of biased teacher judgments on ethnic minority children’s academic achievement ∗ New research on educational consequences of widespread SES and ethnic segregation in American schools ∗ New Social Issues: Education box on magnet schools as a means of attaining equal access to high-quality education ∗ Revised and updated section on U.S. academic achievement in international perspective, including comparisons with high-performing nations

CHAPTER 10: Enhanced attention to cultural variations in self-concept, with special attention to Asian versus U.S. comparisons ∗ Updated research on parenting practices and children’s achievement-related attributions, including the influence of cultural values on likelihood of developing learned helplessness ∗ Expanded and updated section on children’s understanding of diversity and inequality, development of racial and ethnic prejudice, and strategies for reducing prejudice ∗ New findings on peer acceptance, including implications of peer-acceptance categories for bullying and victimization ∗ Updated Biology and Environment box on bullies and their victims ∗ New evidence on sex differences in development of gender identity in middle childhood ∗ Expanded attention to the role of effective coparenting in children’s
Preface for Instructors

adjustment to parental divorce and remarriage • New research on the implications of self-care and after-school programs for school-age children’s adjustment • Revised and updated Cultural Influences box on impact of ethnic and political violence on children • Updated findings on the consequences of child sexual abuse

CHAPTER 11: New section on adolescent brain development, focusing on the imbalance between the cognitive control network and the emotional/social network, with implications for teenage reward-seeking, emotional reactivity, and risk-taking • Updated evidence on teenage pregnancy and parenthood prevention and intervention strategies • New findings on key elements of effective sex education programs • Expanded and updated research on adolescent decision making • Updated consideration of factors contributing to sex differences in spatial and mathematical abilities, including cultural valuing of gender equality • New research on the impact of school transitions on adolescent adjustment • Enhanced consideration of teacher and peer supports for academic achievement • Updated discussion of factors contributing to dropping out of school • New Social Issues: Education box on the impact of “media multitasking” on learning

CHAPTER 12: New research on personal and social factors contributing to identity development in adolescence • Updated Social Issues: Health box on adolescent suicide • Updated evidence on adolescents’ capacity to integrate moral, social-conventional, and personal concerns • Enhanced consideration of factors that promote moral identity, along with its relationship to moral behavior • Updated Social Issues: Education box on development of civic engagement • New evidence on gender intensification in adolescence • Updated section on parenting and adolescent autonomy, including research on immigrant families • Expanded and updated section on Internet friendships, with special attention to teenagers’ use of social networking sites • New evidence on associations among parent, friend, and dating-partner relationships • New findings on long-term outcomes of multisystemic therapy for violent juvenile offenders

CHAPTER 13: Updated Biology and Environment box on telomere length as a marker of the impact of life circumstances on biological aging • New controversial evidence on the role of free radicals in aging • New research on SES variations in adult health • Updated statistics on the continued worldwide rise in adult overweight and obesity, including a revised Social Issues: Health box on environmental factors contributing to the U.S. obesity epidemic • New findings on negative stereotyping and discrimination experienced by overweight adults • Enhanced discussion of treatment of adult obesity • New evidence on the Internet as a contemporary way to initiate dating relationships • Updated research on psychological stress and unfavorable health outcomes • Enhanced discussion of the psychological impact of attending college, including benefits of opportunities to interact with racially and ethnically diverse peers • New findings on the role of gender stereotypes in women's likelihood of choosing STEM careers • Updated Social Issues: Education box on men who choose nontraditional careers

CHAPTER 14: Revised and updated section on emerging adulthood, including new findings on emerging adults’ religiosity, spirituality, and commitment to community service • Enhanced discussion of the controversy over whether emerging adulthood really is a distinct period of development • Special attention to parenting of emerging adults, including “helicopter parenting” • Updated consideration of increasingly flexible age-graded expectations for early adulthood life events • Updated consideration of factors that contribute to enduring romantic relationships • New findings on social networking sites as contexts for early adulthood friendship • Expanded discussion of the rise in average age of leaving the parental home • Increased attention to parent–young-adult child relationships • New findings on sharing of household tasks in dual-earner marriages, including cross-national evidence • Updated research on relationship qualities and communication skills contributing to marital satisfaction • Attention to the role of American individualism in the high U.S. divorce and remarriage rates • Updated consideration of the dramatic increase in never-married single parents, including SES and ethnic variations • New findings on career development in early adulthood, with special attention to obstacles to success faced by women and ethnic minorities • Enhanced discussion of combining work and family

CHAPTER 15: Updated Biology and Environment box on anti-aging effects of dietary calorie restriction • Updated evidence on the risks of hormone therapy to reduce physical discomforts of menopause • New survey findings on sexual activity of U.S. middle-aged adults • Updated sections on risk of cancer and heart disease in midlife • New research on gains in effective coping in middle adulthood • Updated evidence on the neurobiological basis of declines in processing speed with age • New findings on midlife changes in attention and memory • New Social Issues: Education box on how lessons in the art of acting improve memory in older adults

CHAPTER 16: Enhanced consideration of the contribution of parenting to generativity in midlife • New research on cultural variations in the link between midlife physical changes and psychological well-being • Updated Social Issues: Health box on grandparents rearing grandchildren in skipped-generation families • Updated evidence on relationships between middle-aged adults and their aging parents, including ethnic variations • New findings on midlife intergenerational assistance to both children and aging parents • Enhanced discussion of care of aging parents in poor health, with emphasis on gender disparities, ethnic variations, and emotional, physical, and financial consequences • New research on middle-aged
Preface for Instructors

adults’ use of social networking sites ● Updated discussion of the glass ceiling in career advancement faced by women and ethnic minorities ● New evidence on career change at midlife, with special attention to blue-collar workers ● Discussion of the impact of the late-2000s recession on delayed retirement

CHAPTER 17: Updated statistics on life expectancy in late adulthood, including gender and SES variations ● Updated international comparisons in healthy life expectancy ● New research on brain development, including neurological changes that enable older adults to compensate for declines in central nervous system functioning ● Updated findings on risk and protective factors associated with various aspects of physical aging ● New evidence on cultural variations in older adults’ sense of personal control, with implications for coping with physical impairments ● Updated section on assistive technologies ● Expanded and updated discussion of stereotypes of aging, including stereotype threat, with implications for physical and cognitive performance ● Updated consideration of SES and ethnic variations in health in late adulthood ● Expanded consideration of progress in compression of morbidity ● Updated survey findings on sexual activity in late adulthood ● New findings on neurological changes associated with Alzheimer’s disease, including efforts to understand how abnormal amyloid and tau damage neurons ● New evidence on genetic and environmental risks for Alzheimer’s, and on protective factors, with special emphasis on diet, education, and physical activity ● Updated Social Issues: Health box on interventions for caregivers of older adults with dementia, with increased attention to respite and caregiving skills ● Enhanced attention to use of selective optimization with compensation in adapting to cognitive changes ● Expanded discussion of episodic memory and prospective memory in late adulthood ● Updated research on everyday problem solving in late adulthood ● Enhanced consideration of the impact of cognitive training on older adults’ mental functioning, including broadening programs to target self-efficacy ● New evidence on the rapid rise in use of computers and the Internet among older people

CHAPTER 18: Updated research on reminiscence in late adulthood ● New findings on personality development in late adulthood, with special attention to openness to experience ● Enhanced consideration of the benefits of spirituality and religiosity in late life, including a new Biology and Environment box on religious involvement and quality of life in the final year ● Consideration of sustaining an effective person–environment fit in older adults’ social contexts, including caregiving and housing arrangements ● Updated discussion of socioemotional selectivity theory and related research ● New research on divorce, remarriage, and cohabitation in late adulthood, including aging baby boomers’ use of online dating services ● Updated findings on late-life friendships ● New evidence on retirement as a dynamic process with multiple transitions and wide individual variation

CHAPTER 19: Updated research on diverse factors influencing people’s adaptation to dying ● Updated discussion of dying at home, in hospitals, and in nursing homes ● New findings on hospice, including reducing patient suffering, improving family functioning, and increasing ability to sustain patient care at home ● Updated statistics on public attitudes toward passive euthanasia, voluntary active euthanasia, and assisted suicide ● Updated statistics on Oregon residents dying by legal assisted suicide ● New research on the role of expressions of happiness and humor in bereavement adjustment ● New evidence on bereavement interventions, with special attention to support groups based on the dual-process model of coping with loss
Acknowledgments

The dedicated contributions of many individuals helped make this book a reality and contributed to refinements and improvements in this sixth edition. An impressive cast of reviewers provided many helpful suggestions, constructive criticisms, and enthusiasm for the organization and content of the text. I am grateful to each one of them.

Reviewers for the Sixth Edition
Cheryl Anagnopoulou, Black Hills State University
Carolyn M. Barry, Loyola University
Lori Bica, University of Wisconsin, Eau Claire
Linda Curry, Texas Christian University
Manfred Diehl, Colorado State University
Mary Anne Erickson, Ithaca College
Karen Fingerman, University of Texas, Austin
Linda Halgunseth, Pennsylvania State University
Melinda Heinz, Iowa State University
Joseph Kishston, University of North Carolina, Wilmington
Dale Lund, California State University, San Bernardino
Debra McGinnis, Oakland University
Celia Reese-Melancon, Oklahoma State University
Mathew Shake, Western Kentucky University
Kim Shifer, Towson University
Gregory Smith, Kent State University
Stephanie Stein, Central Washington University
JoNell Stough, West Virginia University
Bruce Thompson, University of Southern Maine
Laura Thompson, New Mexico State University

Reviewers for Previous Editions
Gerald Adams, University of Guelph
Jackie Adamson, South Dakota School of Mines and Technology
Paul C. Amrhein, University of New Mexico
Cheryl Anagnopoulou, Black Hills State University
Doreen Arcus, University of Massachusetts, Lowell
René L. Babcock, Central Michigan University
Sherry Beaumont, University of Northern British Columbia
W. Keith Berg, University of Florida
James A. Bird, Weber State University
Toni Bisconti, University of Akron
Joyce Bishop, Golden West College
Kimberly Blair, University of Pittsburgh
Tracie L. Blumentritt, University of Wisconsin—La Crosse
Ed Brady, Belleville Area College
Michele Y. Breault, Truman State University
Dilek Buchholz, Weber State University
Lanthan Camblin, University of Cincinnati
Judith W. Cameron, Ohio State University
Joan B. Cannon, University of Massachusetts, Lowell
Michael Caruso, University of Toledo
Susan L. Churchill, University of Nebraska—Lincoln
Gary Creasey, Illinois State University
Rhoda Cummings, University of Nevada—Reno
Rita M. Curl, Minot State University
Carol Lynn Davis, University of Maine
Lou de la Cruz, Sheridan Institute
Byron Egeland, University of Minnesota
Beth Fauth, Utah State University
Karen Fingerman, Purdue University
Maria P. Fracasso, Towson University
Elizabeth E. Garner, University of North Florida
Laurie Gottlieb, McGill University
Dan Grangaard, Austin Community College
Clifford Gray, Pueblo Community College
Marlene Grooms, Miami Dade College
Laura Gruntmeir, Redlands Community College
Laura Hanish, Arizona State University
Traci Haynes, Columbus State Community College
Vernon Haynes, Youngstown State University
Bert Hayslip, University of North Texas
Bob Heller, Athabasca University
Karl Hennig, St. Francis Xavier University
Paula Hillman, University of Wisconsin—Whitewater
Deb Hollister, Valencia Community College
Hui-Chin Hsu, University of Georgia
Lera Joyce Johnson, Centenary College of Louisiana
Janet Kalinowski, Ithaca College
Kevin Keating, Broward Community College
Wendy Kliwer, Virginia Commonwealth University
Marita Kloseck, University of Western Ontario
Karen Kopera-Frye, University of Nevada, Reno
Valerie Kuhlmeier, Queens University
Deanna Kuhn, Teachers College, Columbia University
Rebecca A. López, California State University—Long Beach
Dale Lund, California State University, San Bernardino
Pamela Manners, Troy State University
Ashley Maynard, University of Hawaii
Robert B. McLaren, California State University, Fullerton
Kate McLean, University of Toronto at Mississauga
Randy Mergler, California State University
Karla Miley, Black Hawk College
Carol Miller, Anne Arundel Community College
Teri Miller, Milwaukee Area Technical College
David Mitchell, Kennesaw State University
Steve Mitchell, Somerset Community College
Gary T. Montgomery, University of Texas, Pan American
Feleccia Moore-Davis, Houston Community College
Ulrich Mueller, University of Victoria
Karen Nelson, Austin College
Bob Newby, Tarleton State University
Jill Norvilitis, Buffalo State College
Patricia O’Brien, University of Illinois at Chicago
Nancy Ogden, Mount Royal College
Peter Oliver, University of Hartford
Verna C. Pangman, University of Manitoba
Robert Pasnak, George Mason University
Ellen Pastorino, Gainesville College
I cannot begin to express what a great pleasure it has been, once again, to work with Tom Pauken, Managing Editor, who oversaw the preparation of the third and fifth editions of Development Through the Lifespan and who returned to edit this sixth edition. His careful review of manuscript, keen organizational skills, responsive day-to-day communication, insightful suggestions, astute problem solving, interest in the subject matter, and thoughtfulness greatly enhanced the quality of the text and eased the immense challenges that arose during its preparation. Judy Ashkenaz, Development Editor, carefully reviewed and commented on each chapter, helping to ensure that every thought and concept would be clearly expressed and well-developed. She also assisted with preparation of photo specifications, drafting of photo captions and chapter summaries, and, as needs arose, graciously took on extra tasks, including updating of diverse aspects of the Instructor's Resource Manual. Rachel Trapp, editorial assistant, has been extraordinary. In addition to spending countless hours searching, gathering, and organizing scholarly literature, she assisted with an array of editorial and production tasks. In a pinch, she diligently took over the responsibility of preparing and editing many of the assessments in MyDevelopmentLab (MDL).

The supplements package benefited from the talents and dedication of several other individuals. Leah Shriro revised the IRM brief summaries and lecture outlines. Kimberly Michaud prepared a superb Test Bank and many of the MDL assessments. Judy Ashkenaz designed and wrote a highly attractive PowerPoint presentation. Maria Henneberry and Phil Vandiver of Contemporary Visuals in Bloomington, IL, prepared an artistic and inspiring set of new video segments addressing diverse topics in lifespan development.

Donna Simons, Senior Production Project Manager, coordinated the complex production tasks that resulted in an exquisitely beautiful sixth edition. I am grateful for her keen aesthetic sense, attention to detail, flexibility, efficiency, and thoughtfulness. I thank Sarah Evertson for photo research that contributed to the exceptional photographs that illustrate the text narrative. Margaret Pinette provided outstanding copyediting and careful compilation of the references list, and Julie Hotchkiss offered meticulous proofreading.

Wendy Albert, Executive Marketing Manager, prepared the beautiful print ads and informative e-mails to the field about Development Through the Lifespan, Sixth Edition. She has also ensured that accurate and clear information reached Pearson Education’s sales force and that the needs of prospective and current adopters were met.

A final word of gratitude goes to my family, whose love, patience, and understanding have enabled me to be wife, mother, teacher, researcher, and text author at the same time. My sons, David and Peter, grew up with my texts, passing from childhood to adolescence and then to adulthood as successive editions were written. David has a special connection with the books’ subject matter as an elementary school teacher. Peter is now an experienced attorney, and his vivacious and talented wife Melissa joins a new generation of university faculty dedicated to creative teaching and research. All three continue to enrich my understanding through reflections on events and progress in their own lives. Last, but certainly not least, I thank my husband, Ken, for joining me on a wonderfully fulfilling lifespan journey. Over the past two decades, he willingly made room in our lives for the immensely demanding endeavor of authoring six editions of Development Through the Lifespan. His reflections, support, and astute counsel made all the difference during the project’s final months.

Laura E. Berk
About the Cover Art

Growing up in Depression-era Detroit, Harold Gregor displayed passion for and talent in art as a child. As early as kindergarten, he drew—so much so that he recalls being placed in the corner for wasting paper. He earned his bachelor's degree from Wayne State University, master's degree from Michigan State University, and Ph.D. in painting from Ohio State University. After a decade of teaching and experimentation with diverse artistic styles in southern California, he moved to the American heartland, joining the faculty at Illinois State University in 1970.

The Illinois farm and prairie landscape quickly became a compelling source of inspiration, and Gregor gained national prominence as one of the foremost American Photorealist painters. Starting with close-up views of corn cribs, an indigenous form of architecture that fascinated him, he soon moved to panoramas and aerial views of prairie farm scenes, introducing imaginative colors that accentuated the unique and varied beauty of the Midwestern landscape.

In 2004, while climbing a cliff trail in Italy, he fell and broke his right wrist. With his right arm in a cast, he transformed an obstacle into an opportunity: He began to paint with his left hand. Once his right arm healed, he refined his left-handed paintings, eventually arriving at brilliantly colorful, abstract stylistic innovations he calls Vibrascapes, of which the dazzling, energetic image on the cover of this text is an example.

Now a distinguished professor emeritus, Harold Gregor is the epitome of “optimal aging.” At age 83, he continues to paint prolifically, prepare new exhibitions, and teach. On his studio wall can be found a Chinese proverb, which reads, “What happiness to wake alive again into this same gray world of winter rain.” He says the proverb reminds him that although growing older is accompanied by unforeseen challenges, he feels blessed each day to do what he enjoys most: painting and teaching.

Harold Gregor’s paintings have been shown at the White House, the American Embassy in Moscow, and the Art Institute of Chicago. They have won numerous prestigious awards and can be viewed in galleries across the United States. To learn more about his life and work, visit www.hgregor.com; and watch the video segment, Creativity in Late Life, that accompanies this text.
Legend for Photos Accompanying Sofie’s Story

Sofie’s story is told in Chapters 1 and 19, from her birth to her death. The photos that appear at the beginning of Chapter 1 follow her through her lifespan and include family members of two succeeding generations.

Page 2
1. Sofie, age 18, high school graduation in 1926.
2. Sofie as a baby, with her mother in 1908.
3. Sofie, age 6, with her brother, age 8, in 1914.
4. Sofie’s German passport.
5. Sofie, age 60, and daughter Laura on Laura’s wedding day in 1968.
6. Sofie and Phil in 1968, less than two years before Sofie died.
7. Sofie’s grandsons, David and Peter, ages 5 and 2, children of Laura and Ken.
8. Laura, Ken, and sons Peter and David, ages 10 and 13, on the occasion of David’s Bar Mitzvah in 1985.
9. Peter and Melissa on their wedding day in 2007.
10. Laura, Ken, sons David and Peter, and Peter’s wife Melissa, with acclaimed pianist Awadagin Pratt, at the naming of a Pratt Foundation piano scholarship in Sofie’s memory.

Page 3
Sofie, age 61, and her first grandchild, Ellen, October 1969, less than three months before Sofie died.

Page 4
Sofie and Phil in their mid-thirties, during World War II, when they became engaged.
Development
Through the
Lifespan