

DEVELOPMENTAL PSYCHOLOGY TODAY




SIXTH EDITION

Lois Hoffman / Scott Paris / Elizabeth Hall

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*DEVELOPMENTAL
PSYCHOLOGY
TODAY*



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DEVELOPMENTAL PSYCHOLOGY TODAY

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Courtesy of Joni Strickland

LOIS HOFFMAN is professor of psychology at the University of Michigan, where she has served for six years as chair of the developmental psychology department. She received her B.A. from SUNY-Buffalo, her M.S. from Purdue University, and her Ph.D. from the University of Michigan.

Since 1967, she has taught the undergraduate course in developmental psychology, alternating since 1980 with Scott Paris. In 1981, she was given an award for outstanding teaching.

Professor Hoffman is perhaps best known for her work on the effects of maternal employment on the child, and she is currently studying the effects of maternal employment on the child and the family in a large midwestern urban sample. She coauthored two books on this topic with F. Ivan Nye, *The Employed Mother in America* (1963) and *the Working Mother* (1974); has published many articles; and has given lectures in Europe, Asia, and South America, as well as throughout the United States. She is also well known for her research on parent-child interaction and the child's social and personality development and on the value of children to parents.

Professor Hoffman's other books include the *Review of Child Development Research*, Volumes 1 and 2 (with M. L. Hoffman), *Women and Achievement* (with M. Mednick and S. Tangri), and *Parenting: Its Causes and Consequences* (with R. Gandelman and R. Shiffman).

She has served as president of the Developmental Psychology Division and the Society for the Psychological Study of Social Issues of the American Psychological Association. In 1989, the American Psychological Association selected her as an Eminent Woman in Psychology. She has served on the editorial boards of *Developmental Psychology*, the *Journal of Applied Developmental Psychology*, *Women and Work*, the *Review of Child Development Research*, and other professional journals.



SCOTT PARIS is professor of psychology and education at the University of Michigan. Since receiving his B.A. from the University of Michigan and his Ph.D. from Indiana University, Professor Paris has taught at Purdue University and Michigan. He has also been a visiting scholar at Stan-

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His research in developmental psychology has focused primarily on memory and problem-solving skills in children, while his research on education has investigated children's learning and reading. He has written more than eighty articles and book chapters; is a coauthor of *Psychology*, 3rd ed. (with H. Roediger et al.); and is coeditor of *Learning and Motivation in the*

Classroom (with G. Olson and H. Stevenson). He has served on the editorial boards of *Child Development*, the *Journal of Educational Psychology*, *Developmental Review*, *Educational Psychologist*, and *Reading Research Quarterly*. Professor Paris has also created educational materials entitled "Reading and Thinking Strategies" for grades 3 through 8, and he is a coauthor of *Heath Reading*, a K-8 basal reading program.



ELIZABETH HALL is the co-author of several textbooks, including *Child Psychology Today* (2nd ed.), *Sexuality, Psychology Today: An Introduction* (7th ed., published by McGraw-Hill), and *Adult Development and Aging* (2nd ed.). She is also coauthor of *Seasons of Life* (with

John Kotre), a book developed to accompany the *Seasons of Life* television series on human development produced by the University of Michigan and WQED, Pittsburgh.

Before she turned to college textbooks, she was editor-in-chief of *Human Nature*, a magazine about the human sciences. She was formerly managing editor of *Psychology Today*, and after she left that post, she continued to interview prominent psychologists for the magazine. Some of those conversations with developmental psychologists have been published as *Growing and Changing: What the Experts Say* (Random House, 1987). She has also written a number of books for children; two of them, *Why We Do What We Do: A Look at Psychology* and *From Pigeons to People: A Look at Behavior Shaping*, received honorable mention in the American Psychological Foundation's National Media Awards.

*To our parents,
Gus and Etta, George and Muriel, Ed and Mae;
and to our children,
Amy and Jill, Jeff, Kristin, and Julie, Susan and David*

PREFACE

Our goal in the sixth edition of *Developmental Psychology Today* remains the same as it has always been: to give students an up-to-date, comprehensive, research-based introduction to developmental psychology. Since the fifth edition was published, research in developmental psychology has expanded in every direction. Old theories are being interpreted in new ways, and new theories are shedding light on unexplored corners of development. The excitement of new findings has kept pace with the increasing complexity of the field. Organizing and synthesizing the wealth of research, the complicated issues, and the theoretical debates that characterize the field presents an increasing challenge.

To meet the challenge, we have field-tested the book and the support materials. *Developmental Psychology Today* is used in the classroom by both of our academic authors, who together have forty-five years experience in teaching developmental psychology. Lois Hoffman, professor of developmental psychology at the University of Michigan, has taught the course at Rutgers University, Temple University, Arizona State, and the University of Michigan. She is an expert on family interaction and the social context of development, and her work on maternal employment in the family is central to an understanding of its effects. Scott Paris, a professor of psychology and education at the University of Michigan, has taught the course at Purdue and the University of Michigan. He is an expert on children's learning, reading, metacognition, and educational achievement, as well as coauthor of a basal reading series. Classroom experience convinced them that a text can best convey continuity and change in development

by presenting childhood development in three parts: the beginnings of life (from conception to the end of the neonatal period), infancy and early childhood (from 1 month through the age of 3), and childhood (age 4 to 12). Elizabeth Hall, a professional writer, has made the book readable and accessible to students, as she has since the second edition.

The New Sixth Edition

Sweeping changes in the field of developmental psychology have led to continued reorganization and re-writing of *Developmental Psychology Today*. Through all six editions, however, we have retained a research-based orientation, and our determination to keep the text interesting and readable remains firm. The accent of this sixth edition is on change. Our guiding theme is that development occurs in the context of a varied and changing society. Instead of assuming that development is the same for every group and every time, we take the position that differences in the way people live alter the experience of every life stage. For that reason, we have enlarged our coverage to emphasize the effect of class, ethnic group, and culture on development. While presenting development within today's society, we note trends that could affect development in the future. Finally, we have increased our emphasis on the child as an active agent in socialization, through his or her influence on the environment and interpretation of it. As in earlier editions, we have continued to integrate theory and research so that coverage is not tied to a single theory or

theorist. This approach gives instructors the freedom to emphasize particular theoretical positions as they see fit—through either supplementary lectures, assigned readings, or other means.

New Organization

The sixth edition of *Developmental Psychology Today* places more emphasis on adolescence than did earlier editions. We have expanded our coverage on adolescence to three chapters. This shift reflects the new research focus on young adolescents, which has grown out of the realization that puberty is a major milestone in human development. Because people develop and change throughout the life span, we have continued the fifth edition's emphasis on adulthood. For this edition, however, we have eliminated the final chapter on death, because much of the substantive work on this topic is not truly developmental and because extensive coverage of death seemed to send some students away from the course with negative feelings. Instead, we have incorporated essential portions of that chapter into appropriate sections of our discussion of social development during late adulthood (Chapter 20): coverage of life expectancy and longevity is now part of the discussion of physical changes, and coverage of grieving and the adjustment to widowhood has been added to the section on the sociopsychological aspects of life as a widowed spouse. A brief discussion of developmental issues connected with death provides the conclusion to that chapter. These changes allow us to complete our survey of human development without increasing the length of the book.

Instructors familiar with previous editions will notice other major and minor changes. In Part One (Chapters 1 and 2), we have reorganized Chapter 1. In the process, we increased our emphasis on the interaction between genes and the environment, enriched our coverage of the nature of developmental change, emphasized a critical interpretation of developmental research, and strengthened our discussion of methodology. In Chapter 2, we have expanded our coverage of social cognition, providing specific discussions of Robert Selman's and Lawrence Kohlberg's theories. In line with developmentalists' renewed emphasis on the social context of development, we have expanded coverage of cultural-contextual theories, particularly the theories of Vygotsky and Bronfenbrenner.

In Part Two (Chapters 3 and 4), on the beginnings of life, we have continued this emphasis. In Chapter 3, we have strengthened the discussion of interaction be-

tween heredity and environment and presented recent advances in in-vitro fertilization. Our discussion of teratogens reflects the most recent research and expands coverage of the effects of AIDs, cocaine, and lead. In Chapter 4, we have added a section on the newborn's states and rhythms, integrating the roles of crying, sleeping, and sucking into the infant's life. We have expanded the discussions of perceptual development in early infancy, and we have taken a broader look at early temperament and social interaction, reflecting our theme of development within a social context.

Part Three (Chapters 5 through 8), on infancy and early childhood, has also seen extensive revision. In our exploration of physical development (Chapter 5), we have expanded the section on cortical control, adding a discussion of lateralization. We have also extended the section on play skills in early childhood, incorporating a developmental view of play. Our focus on the interaction of the determinants of development has led to expanded coverage of sociocultural influences on health, including malnutrition, deprivation, and enrichment. The chapter on cognition (Chapter 6) has been enriched with a new section on perceptual development and with new research on mental representation in toddlers which indicates that Piaget underestimated their representational ability. Our discussion of language (Chapter 7) continues to focus on the precursors to language and expands the discussion of required cognitive advances. New research will help students understand the constraints on learning new words and the tendency to overregularize language. The section on theories of language acquisition has been rearranged, expanded with new research, and recast so that students will find it easier to grasp. Our discussion of early social development (Chapter 8) has been revised, expanded, and updated, as the changed section headings indicate. Chapter 8 now includes new theories, a strong focus on class, ethnic, and cultural differences in mothering and attachment, a recognition of limitations in the traditional ways of measuring attachment, new insight into early peer relations, an expanded discussion of sibling influence, and a revised coverage of self-concept, which for the first time incorporates the development of emotions and emotional self-regulation.

Part Four (Chapters 9 through 12), on childhood, pays equal attention to social and cognitive development. In our discussion of the child within the family (Chapter 9), we have added coverage on latchkey children, the effects of birth order, and single parenting and the extended family in ethnic groups. We have rewritten the chapter to incorporate new research that traces

the influence of family discord and parental style on the developing child. Chapter 10 describes how influences from beyond the family affect social development. The chapter provides in-depth coverage of class, ethnic, and cultural differences and increases coverage on peer relations, which has recently become the focus of renewed research interest. We have added new sections on friendships across ethnic groups and on the effects of unemployment on developing children, and we have substantially strengthened the discussion of developmental effects of ethnic-group membership. The first cognitive chapter in this part (Chapter 11) covers the shift from preoperational to concrete-operational thought and continues to emphasize what children *can*, rather than *cannot*, do. New sections on categorization and the development of self-regulated learning, as well as the expanded coverage of problem solving, provide a more comprehensive picture of children's thought. The chapter on intelligence (Chapter 12) emphasizes aspects of family and community life that influence academic intelligence. To this end, we have added a discussion of multiple intelligences, explored the connection between social class and IQ scores, and looked at specific aspects of the home environment and community beliefs that affect scores. In order to incorporate this material, we have shortened the discussion of cognition applied to specific subjects while retaining our exploration of motivation and self-regulated learning.

Part Five (Chapters 13 through 15), which traces development in adolescence, has been expanded to reflect recent social change and heightened interest in this phase of the life span. The first chapter (Chapter 13), which covers biological changes and change within the self, has been extensively reorganized. The new discussion of identity formation is sensitive to different paths for different subgroups in society, and the discussion of family life, which focuses on the conflict between the quest for autonomy and the maintenance of family ties, now includes sections on parenting styles, parental divorce, and maternal employment. Other new sections provide coverage of adolescent homosexuality and of the adolescent as worker, paying attention to class and ethnic differences in occupational experience. The new chapter on cognitive development (Chapter 14) looks at the physiological and social changes that underlie adolescent thinking and the adolescent's transition and adjustments to school. The chapter goes beyond the traditional coverage of adolescent thought to examine practical intelligence. The chapter on adolescent problems (Chapter 15) has been retained but rewritten to reflect society in the 1990s, with increased

attention to different patterns among various social classes and ethnic groups.

Coverage of adulthood continues to fill Parts Six (Chapters 16 through 18) and Seven (Chapters 19 and 20). The chapters on social development in young adulthood (Chapter 16) and middle adulthood (Chapter 18), which interweave the experience of adulthood in a changing society with the effects of gender on that experience, also emphasize the new strand of membership in an ethnic group. The chapter on intellectual development in young and middle adulthood (Chapter 17) still emphasizes progressive changes in general thinking and the role of health and life style on intelligence. Chapter 19, however, which explores cognition in later adulthood and focuses on changes in information processing, has been reorganized to reflect new emphases among developmentalists. The chapter includes new theories on the causes of slowed processing, as well as a discussion of cognitive plasticity and training and a section on wisdom. The final chapter, on social development in later adulthood (Chapter 20), emphasizes the influence of ethnic-group membership on the experience of later adulthood, as well as the impact of life style on the nature and pace of aging. As noted earlier, it incorporates material on theories of aging, grief, adjustment to widowhood, and death as a developmental issue.

Selective Coverage

Developmental Psychology Today makes no attempt to survey *all* research in *all* areas of development or to look at *all* the issues and topics that concern developmentalists. Such a goal would be unrealistic. For the sixth edition, we have tried, as before, to present the most important studies in the most important areas and to help students understand what they have read. We analyze the presented material, explain the implications of research, synthesize viewpoints and theories, and discuss their applications. We believe that this approach helps students gain an appreciation for developmental issues that will last long beyond the final exam.

Up-to-Date Research

In order to retain the text's emphasis on development *today*, we have sought out the latest research on issues, methods, and ground-breaking discoveries. In this book, students will encounter new research showing that

A baby's temperament tends to match the expectations of the parents during the prenatal period.

Babies as young as 2 months prefer attractive faces.

Family context and culture influence the way infants show attachment in the Strange Situation.

Human breast milk seems to spur cognitive development in preterm infants.

The nature of family interactions affects the speed with which children move through Kohlberg's stages of moral development.

Having even one friend protects neglected children from the negative effects of peer rejection.

Latchkey children who stay in their own homes after school do as well as children who are supervised by a parent.

High blood pressure may be a major factor in IQ declines among adults.

During the coming decade, age differences in IQ scores will probably shrink.

Authentic Examples from Daily Life

Our policy is to use individuals in the news, specific people from studies, incidents from the experiences of the authors, and experiences reported by various researchers in a way that brings developmental issues to life for the reader. These actual examples are scattered through every chapter and provide chapter-opening vignettes. Social effects on development seem clear when, for example, students watch the morning routine in a two-career family, learn about the way a young girl reacted to her parents' divorce, or observe the after-school routine of a young adolescent whose mother is a single parent. Adolescent suicide is no longer an abstract problem when students meet a 14-year-old who takes his own life. The effects of aging on memory processes take on new meaning when psychologists B. F. Skinner and Donald Hebb describe their own memory problems. And when an African-American couple on the verge of retirement talk about their future, the meaning of generativity becomes clear.

Highlights on Current Issues

Students will find boxed inserts in every chapter of *Developmental Psychology Today*. The boxes are varied, drawing from in-depth coverage of a particular study or reports from the world outside the research laboratory. They may discuss a particular research technique, illuminate a controversial or newsworthy topic from the standpoint of developmental issues, or present

experiences from other cultures. As they read these boxes, students will learn about technology that allows researchers to watch the spread of neural activity across the living infant brain. They will learn about the way culture determines the nature of interaction between mother and baby, the influence of physical attractiveness on development, and the psychological effects of parental battles on toddlers. Students will discover how the context of a study affects research results, how China's one-child policy may influence children's development, when peer collaboration spurs problem solving and when it interferes, why the students who most need help are least likely to ask for it, why students with high grades may not get high SAT scores, how social context influences marital happiness, why there is no connection between IQ and the complex ability to handicap horses, and how stereotypes about old people affect our perceptions of their behavior.

Study Aids

In order to assist the learning process, an outline precedes each chapter, serving as an advance organizer. Each chapter is followed by a summary organized under major chapter headings so that students can review its content. At its first use, each new term is printed in boldface type. Following each chapter is a list of these key terms, which are also defined in the glossary at the end of the book.

A complete teaching and learning package is available with *Developmental Psychology Today*, sixth edition. The package is coauthored by a team of experienced instructors from Texas Christian University: David Cross, Don Dansereau, and Julie Mason. The package includes a Student Study Guide, which has been completely revised and updated and uses concept maps to organize and present review material for students; a Test Bank that contains a mix of factual and conceptual questions for each chapter (also available in computerized formats for IBM and Macintosh computers); and an Instructor's Manual that includes a variety of teaching resources. The McGraw-Hill Overhead Transparencies in *Developmental Psychology* are also available with this text.

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and accurate: Dr. Kristin Moore at Child Trends supplied many statistics, Dr. Jerald Bachman at the Institute for Social Research supplied us with fresh data from the Monitoring the Future study, and Dr. Karl Rosengren at the University of Illinois supplied material and advice on the adolescent cognition chapter. We would also like to thank Dr. Joseph Adelson of the University of Michigan, Dr. Marc Bornstein of the National Institute of Child Health and Human Development, and Dr. Esther Thelen of Indiana University, whose materials and guidance continue to make their imprint on this book.

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CONTENTS IN BRIEF

PREFACE XV

PART ONE THE MEANING OF DEVELOPMENT

- Chapter 1** Concepts and Methods
in Developmental Psychology 3
Chapter 2 Theories of Development 27

PART TWO THE BEGINNING OF LIFE

- Chapter 3** Prenatal Development 55
Chapter 4 The Newborn's World 87

PART THREE THE FIRST FOUR YEARS

- Chapter 5** Fundamentals of Physical Growth 111
Chapter 6 Cognition: From Sensing
to Knowing 135
Chapter 7 Cognition: The Emergence
of Language 163
Chapter 8 Social Development: Becoming
a Person 189

PART FOUR THE INDUSTRIOUS CHILD

- Chapter 9** Social Development: Growing Up
in the Family 217
Chapter 10 Social Development: Expanding
Social Interaction 249
Chapter 11 Cognition: Thinking
and Reasoning 281

- Chapter 12** Cognition: Intelligence
and Schooling 313

PART FIVE ADOLESCENCE: BUILDING AN IDENTITY

- Chapter 13** Adolescence: Biological and
Social Changes 341
Chapter 14 Adolescence: Cognitive Changes 371
Chapter 15 The Stresses of Adolescence 395

PART SIX EARLY AND MIDDLE ADULthood

- Chapter 16** Young Adulthood: Selecting
the Options 425
Chapter 17 Intellectual Development in
Early and Middle Adulthood 455
Chapter 18 Middle Adulthood: Making
the Most of It 477

PART SEVEN LATER ADULthood

- Chapter 19** Thought and Function
in Later Adulthood 507
Chapter 20 Self and Society:
Living Successfully 531

GLOSSARY 562

BIBLIOGRAPHY 574

PERMISSIONS ACKNOWLEDGMENTS 628

INDEXES 631

CONTENTS

PREFACE xv

PART ONE THE MEANING OF DEVELOPMENT

Chapter 1 Concepts and Methods in Developmental Psychology 3

The Nature of Human Development	4
Determinants of Development	8
Research Methods in Developmental Psychology	11
The Field of Developmental Psychology	21
SUMMARY 24/KEY TERMS	25

Chapter 2 Theories of Development 27

Biological Theories	29
Psychodynamic Theories	31
Learning Theories	36
Cognitive Theories	39
Cultural-Contextual Theories	45
Understanding Human Development	48
SUMMARY 50/KEY TERMS	51

PART TWO THE BEGINNING OF LIFE

Chapter 3 Prenatal Development 55

How Life Begins	56
The Transmission of Genes	57
Prenatal Growth	63
Prenatal Behavioral Development	68
The Birth Process	69
Fetal Abnormalities and Birth Complications	74
SUMMARY 82/KEY TERMS	84

Chapter 4 The Newborn's World 87

The Neonate	88
Infant States and Rhythms	89
Reflexes	94
Early Perceptual Development	98
Personality and Social Relations	101
SUMMARY 107/KEY TERMS	108

PART THREE THE FIRST FOUR YEARS

Chapter 5 Fundamentals of Physical Growth 111

The Process of Physical Development	112
Brain Development	116
The Development of Motor Skills	119

Nutrition and Health 124
Maturation and Experience 126
SUMMARY 131 / KEY TERMS 132

Chapter 6 Cognition: From Sensing to Knowing 135

Perceptual Development 136
Basic Learning Processes 142
Sensorimotor Thought 148
Memory in Infants and Toddlers 153
Mental Representation by Infants and Toddlers 156
SUMMARY 160 / KEY TERMS 161

Chapter 7 Cognition: The Emergence of Language 163

Getting Ready to Talk 164
Early Utterances 173
Putting Words Together 177
Explanations of Language Acquisition 182
SUMMARY 186 / KEY TERMS 186

Chapter 8 Social Development: Becoming a Person 189

The Development of Attachment 190
The Security of Attachment 194
The Effects of Class and Culture 201
The Development of Sociability 206
SUMMARY 213 / KEY TERMS 214

**PART FOUR
THE INDUSTRIOUS CHILD**

Chapter 9 Social Development: Growing Up in the Family 217

Parents as Socializers 219
Discipline 221
Influences on Gender Roles 225
Siblings 230
Maternal Employment 233
Alternative Family Arrangements 236
Physical Child Abuse 241
The Family as a System 244
SUMMARY 245 / KEY TERMS 246

Chapter 10 Social Development: Expanding Social Interaction 249

Peers as Socializers 250
Peers as Friends 259
Schools and Socialization 262
Socialization by Television 265
The Effect of Social Class 270
Ethnic Influences on Socialization 272
Cultural Influences on Socialization 275
SUMMARY 277 / KEY TERMS 278

Chapter 11 Cognition: Thinking and Reasoning 281

An Intellectual Revolution 282
Conceptual Development 286
Advances in Information Processing 293
Social Cognition 303
SUMMARY 310 / KEY TERMS 311

Chapter 12 Cognition: Intelligence and Schooling 313

What Is Intelligence? 314
How Do We Measure Intelligence? 318
Influences on IQ Scores 322
Exceptional Intellectual Development 326
Schooling 330
SUMMARY 337 / KEY TERMS 338

**PART FIVE
ADOLESCENCE: BUILDING AN IDENTITY**

Chapter 13 Adolescence: Biological and Social Changes 341

Biological Changes 343
Changes in the Self: Identity 347
The Adolescent within the Family 351
Changes in Friendship and Social Life 357
The Adolescent as Worker 364
SUMMARY 367 / KEY TERMS 368

**Chapter 14 Adolescence:
Cognitive Changes 371**

- The Development of Abstract Reasoning 373
- Piaget's Theory and the Period of Formal Operations 376
- Social Cognition 377
- Practical Intelligence 381
- What Causes the Changes in Adolescent Reasoning and Problem Solving? 385
- Schooling 387
- SUMMARY 392 / KEY TERMS 393

**Chapter 15 The Stresses
of Adolescence 395**

- Change and Stress 396
- Normal and Abnormal Adolescents 398
- Areas of Adolescent Stress 400
- The Future of Adolescent Stress and Distress 418
- SUMMARY 420 / KEY TERMS 421

**PART SIX
EARLY AND MIDDLE ADULTHOOD**

**Chapter 16 Young Adulthood:
Selecting the Options 425**

- Social Change 427
- Physical Characteristics 428
- Theories and Issues of Young Adulthood 429
- Self-Concept and Self-Esteem 432
- Work 435
- Marriage 439
- Having Children 443
- Divorce 449
- Remarriage 450
- SUMMARY 452 / KEY TERMS 453

**Chapter 17 Intellectual Development
in Early and Middle Adulthood 455**

- Intelligence 456
- Stages of Intellectual Development 459
- Does Intelligence Change with Age? 462
- How Health and Life Style Affect Cognition 468
- Adult Education 470
- SUMMARY 474 / KEY TERMS 475

**Chapter 18 Middle Adulthood:
Making the Most of It 477**

- Social Change 479
- Physical Changes 480
- Theories and Issues of Middle Adulthood 484
- Self-Concept and Self-Esteem 488
- Work 489
- Marriage at Midlife 490
- Divorce and Remarriage 493
- Parenthood at Midlife 494
- Relating to Aging Parents 497
- Becoming Grandparents 499
- SUMMARY 502 / KEY TERMS 503

**PART SEVEN
LATER ADULTHOOD**

**Chapter 19 Thought and Function
in Later Adulthood 507**

- Myths about Aging 508
- Biological Changes 509
- Learning and Thinking 515
- Memory in Later Life 521
- Cognitive Plasticity and Training 526
- SUMMARY 528 / KEY TERMS 529

**Chapter 20 Self and Society: Living
Successfully 531**

- Social Change 533
- Physical Changes 533
- Theories and Issues of Later Adulthood 539
- Personality, Self-Concept, and Control 541
- Work and Retirement 545
- Marriage in Later Adulthood 548
- Divorce and Remarriage 550
- Widowhood 550
- Family Relations in Later Adulthood 552
- Living Arrangements of Older Adults 555
- Death as a Developmental Issue 556
- The Life Span Ends 559
- SUMMARY 560 / KEY TERMS 561

GLOSSARY 562

BIBLIOGRAPHY 574

PERMISSIONS ACKNOWLEDGMENTS 628

INDEXES

Name Index 631

Subject Index 646

PART

ONE



THE MEANING OF DEVELOPMENT

As parents contemplate their newborn infant, they are full of pride and plans. The baby's grandparents recall how, thirty years ago, they reacted in the same way—as did their own parents a quarter of a century before. Thirty years from now, the infant in turn will be a parent gazing down at his or her own child. Around the world, in every culture, the cycle of human development goes ever on. The progression from infant to child to young adult to aging elder is a familiar one, but what does it mean? What are the major forces behind development? What sorts of processes are responsible for the changes we see? Why do people brought up in the same culture, even living on the same block, turn out so differently? Explaining how babies develop into adults and why their developmental path takes one turning and not another is an important question studied by developmental psychologists. Yet it is **understanding the general rules of development and not the precise prediction of any one person's life course that is the developmental psychologist's goal.** As you will soon discover, explanations of human development vary. Although each has increased our understanding of the mysterious process of development, none can, by itself, adequately describe the progression from cradle to grave. ■