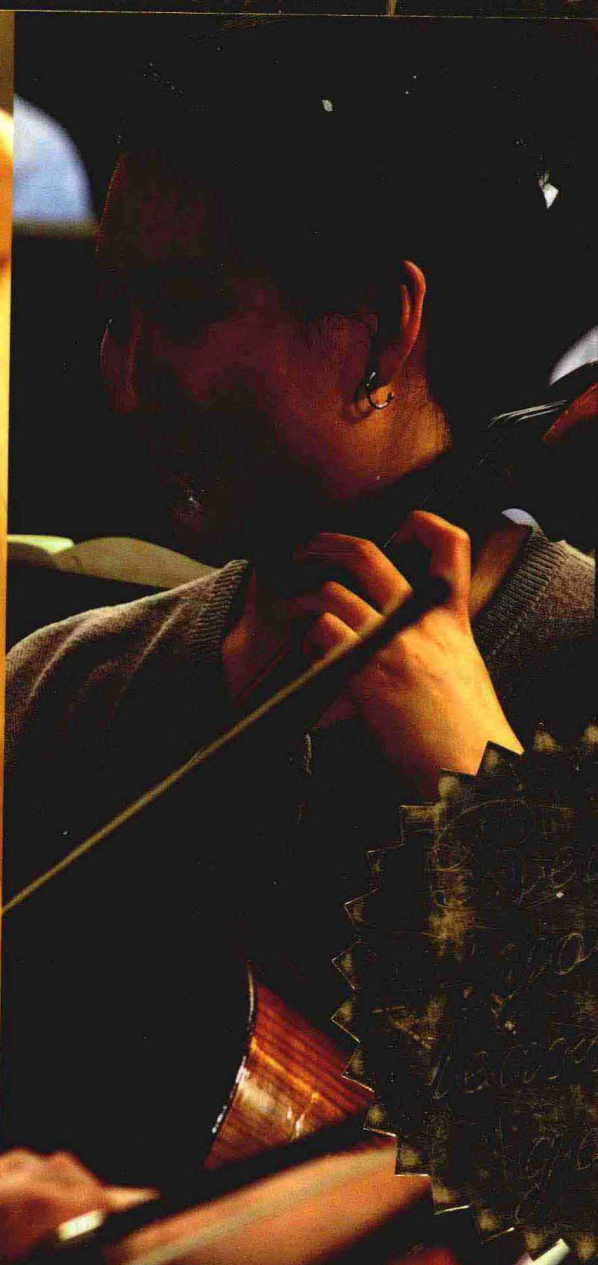


NINTH EDITION

Life-Span Development

JOHN W. B. TROCK



Peace
your
reasoning
good

Preface

Preparing a new edition of *Life-Span Development* is both a joy and a challenge. I enjoy revising this text because the feedback from instructors and students on each edition has been consistently enthusiastic. The challenge of revising a successful text is always to continue meeting readers' needs and expectations, while keeping the material fresh and up to date. For the ninth edition of *Life-Span Development*, I have emphasized three kinds of revisions to meet this challenge. I have expanded coverage in key areas, incorporated the latest research and applications, and honed the elements of the book that make learning easier and more engaging. Here I describe the thrust of these changes in general terms. A list of chapter-by-chapter changes subsequently provides more detail.

CHANGES IN THE NINTH EDITION

"I am a huge fan of John Santrock's style and textbooks. I thought the 8th edition was very good. The 9th edition promises to be even better."

—JAMES REID, *Washington University in St. Louis*

Expanded Coverage of Adult Development, Aging, and Diversity

Instructors have said repeatedly that most life-span texts don't give enough attention to adult development and aging. In the ninth edition, I have significantly modified, expanded, and updated the content on adult development and aging, continuing a process I began some time ago. Examples of added coverage are new sections on stress in early adulthood (chapter 14), work in midlife (chapter 16), and self-esteem in late adulthood (chapter 20).

"I continue to believe that this book remains the most comprehensive life-span text suitable for undergraduates now available. The major efforts made in the 8th edition to give greater coverage and depth to the 75 percent of the life span spent in adulthood and old age have been continued in this edition. Most other life-span texts still think of development as practically ending by adolescence or early adulthood and treat the remainder of the life course as an appendix 'also to be mentioned.' John Santrock makes the conscious effort to understand the early parts of life as prologue for the much longer period of adulthood. Thus, he conveys to the reader early-on that we must understand the beginnings of human development in order to understand what happens later."

—K. WARNER SCHAIE, *Pennsylvania State University*

Diversity is another very important aspect of life-span development, one that has come under increasing scrutiny from researchers in recent years. Every effort was made to explore diversity issues in a sensitive manner in every chapter of this edition. In addition to weaving diversity into discussions of life-span topics, I've included a Sociocultural Worlds of Development box in each chapter to highlight a diversity topic related to the chapter's content. New coverage of diversity includes discussions of early childhood education in Japan (chapter 8), attitudes toward corporal punishment in different cultures (chapter 9), the relationship of gender and ethnicity to obesity (chapter 14), and why people live longer in Okinawa (chapter 18).

"John Santrock seems to have a special manner about issues of culture and diversity. I have many different cultures represented in my classes and I have never had one express any difficulties with the manner in which these issues are discussed."

—BARBA PATTON, *University of Houston–Victoria*

"I find this text to be the most comprehensive and culturally inclusive text. The coverage of cultural issues allows me, without apology, to include lectures in my course covering cultural issues and human development."

—YVETTE HARRIS, *Miami University*

Research and Applications

Above all, a text on life-span development must include a solid research foundation. This edition of *Life-Span Development* presents the latest, most contemporary research on each period of the human life span and includes more than 800 citations from the past three years. For example, in chapter 5, I discuss new research on the stressful aspects of co-sleeping (Hunsley & Thoman, 2002); chapter 11 presents recent studies on gender differences in brain structure and function in middle childhood (Frederikse & others, 2000; Halpern, 2001; Swaab & others, 2001); and chapter 16 covers new research on hormonal changes in middle-aged men and women (Sommer, 2001), as well as on hormone replacement therapy for menopausal women (Hlatky & others, 2002).

This edition also includes many more graphs and tables of research data, so that students can see how data from research studies can be visually presented. There are more than 60 new figures and tables of data in *Life-Span Development*, ninth edition. Special care was taken to make sure that these illustrations

are designed clearly so that students can interpret and understand them.

It is important not only to present the scientific foundations of life-span development to students, but also to demonstrate that research has real-world applications, to include many applied examples of concepts, and to give students a sense that the field of life-span development has personal meaning for them. For example, a new addition to chapter 10 focuses on recommendations for helping children cope effectively with terrorist attacks.

In addition to giving special attention throughout the text to health, parenting, and educational applications, the ninth edition emphasizes careers. Every chapter has one or more Careers in Life-Span Development inserts that profile an individual whose career relates to the chapter's content. Most of these inserts include a photograph of the person at work. In addition, a new Careers in Life-Span appendix that follows chapter 1 describes a number of careers in the education/research, clinical/counseling, medical/nursing/ physical, and families/relationship categories. Numerous Web links provide students with opportunities to read about these careers in greater depth.

"Careers in Life-Span Development is an excellent and exciting addition to the text. A presentation of career vignettes throughout the text will help spark career interest as well as create an atmosphere of the 'applicability' of the material they are learning."

—CHRISTINE KERRES MALECKI, *Northern Illinois University*

Improved Accessibility and Interest

I strongly believe that students not only should be challenged to study hard and think more deeply and productively about life-span development, but also should be provided with an effective learning system. Instructors and students alike have commented on many occasions about how student-friendly this text is. However, I strive to keep making the learning system better, and I am truly excited about the improvements for this edition.

Now more than ever, students struggle to find the main ideas in their courses, especially in courses like life-span development, which includes so much material. The new learning headings and learning system center on learning goals that, together with the main text headings, keep the key ideas in front of the reader from the beginning to the end of a chapter. Each chapter has no more than six main headings and corresponding learning goals, which are presented side by side on the chapter-opening spread. At the end of each main section of a chapter, the learning goal is repeated in a new feature called Review and Reflect, which prompts students to review the key topics in the section and poses a question to encourage them to think critically about what they have read. At the end of the chapter, under the heading Reach Your Learning Goals, the learning goals guide students through the bulleted chapter review.

In addition to the verbal tools just described, maps that link up with the learning goals are presented at the beginning of each major section in the chapter. At the end of each chapter,

the section maps are assembled into a complete map of the chapter that provides a visual review guide. The complete learning system, including many additional features not mentioned here, is presented later in the Preface in a section titled To the Student.

"The learning goals were very informative. They provide direction for the readers. The concept maps are very useful."

—TORO SATO, *Shippensburg University*

As important as it is to provide students with an effective learning system, it is imperative to present theories and research at a level that students can understand them and are motivated to learn about them. In each edition of the book, I have carefully rewritten much of the material to make sure it is at a level that challenges students but is also clearly written so they can understand it. I also continually seek better examples of concepts and material that will interest students.

"The prose is clear, direct, compelling, and authoritative."

—MARIAN UNDERWOOD, *University of Texas at Dallas*

CHAPTER-BY-CHAPTER CHANGES

A number of changes were made in all 21 chapters of *Life-Span Development*, ninth edition. The highlights of these changes include:



CHAPTER 1 Introduction

- Deletion of section on Careers in Life-Span Development from chapter 1 and creation of a careers appendix that now follows chapter 1. The appendix provides considerably expanded coverage of life-span careers and is accompanied by a self-assessment on careers on the book's website. A large number of connections to websites on life-span careers have been added.
- Addition of research descriptions to each section of contemporary concerns: health and well-being, parenting, education, and sociocultural contexts. Each of the research studies described is from the twenty-first century.
- New figure 1.4, illustrating that the main differences in the home environments of children from different ethnic groups are due to poverty rather than ethnicity (Bradley & others, 2001).
- New figure 1.7, showing no differences in happiness across age groups.

"I like the reorganization of the chapter. It should make teaching easier."

—K. WARNER SCHAIE, *Pennsylvania State University*

"I like the new 'research' sections that highlight the recent research being conducted on that specific topic."

—DEBBIE TINDELL, *Wilkes University*



CHAPTER 2 The Science of Life-Span Development

- Extensive reworking of section on research methods
- Reorganization of types of research; new headings are Descriptive Research, Correlational Research, and Experimental Research
- New discussion of naturalistic observation research (Crowley & others, 2001) and new figure 2.8, illustrating the results of this research
- Expanded and updated coverage of ethics
- Extensively revised discussion of Vygotsky's theory for better student understanding
- Two new photographs to illustrate how research might produce different results depending on how homogeneous or diverse the sample is

"The strengths of this chapter are the depths and clarity of explanations of theories."

—MYRA MARCUS, *Florida Gulf Coast University*

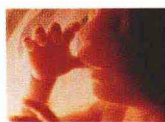


CHAPTER 3 Biological Beginnings

- Important new section, The Collaborative Gene, that discusses why DNA does not determine heredity in a completely independent manner (Gottlieb, 2002)
- Clear, improved discussion of mitosis and meiosis
- New section on genetic imprinting
- Expanded, updated coverage of sex-linked genes
- Updated description of test-tube babies with new recent research studies (Golombok, MacCallum, & Goodman, 2001; Hahn & DiPietro, 2001) and new figure 3.10 on research data
- Expanded, contemporary discussion of the Human Genome Project, including the finding that humans only have about 30,000 to 35,000 genes
- New high-interest figure 3.6: Exploring Your Genetic Future

"The chapter is really rather remarkable in the sheer amount of new and older useful and relevant information that it covers. . . . The chapter for the 9th edition is much improved . . . the breadth of coverage is really admirable and the examples are well chosen."

—GILBERT GOTTLIEB, *University of North Carolina*



CHAPTER 4 Prenatal Development and Birth

- Expanded coverage of teratogens in terms of dose, time of exposure, and genetic susceptibility
- Updated research on cocaine babies
- New teratology section on incompatibility of blood types
- New discussion of cultural variations in childbirth
- New coverage of small for date infants and their comparison to preterm infants
- New discussion of low-birthweight infant rates around the world and very up-to-date information about this topic, including new figure 4.7 (UNICEF, 2001).

"This is a strong chapter."

—LESLEE POLLINA, *Southeast Missouri State University*



CHAPTER 5 Physical Development in Infancy

- Considerable expansion of material on the development of the brain, including new figure 5.4 on synaptic pruning
- Extensive research updating of breast-feeding
- New figure 5.8 on plasticity in the human brain; also new, the fascinating story of Michael Rehbein's loss of his left hemisphere and how his right hemisphere started taking over the functions of speech
- New research on the stressful aspects of co-sleeping (Hunsley & Thoman, 2002)
- Expanded discussion of cultural variations in infants' motor skills

"This is an outstanding chapter. The strengths are the comprehensive coverage of milestones of motor development, excellent figures, and attention to issues of cultural diversity."

—MARIAN S. HARRIS, *University of Illinois, Chicago*



CHAPTER 6 Cognitive Development in Infancy

- New section on infants' understanding of physical reality, including new figure 6.3 on infants' knowledge of cause-and-effect
- New figure 6.5, illustrating the concepts of habituation and dishabituation with seven-hour-old infants
- Expanded, updated coverage of infant memory that focuses on Patricia Bower's recent research
- New section on language production and language comprehension

- New section on language sounds, including Patricia Kuhl's research; also new figure 6.7 on Kuhl's research showing EEG recording of a baby in her research on the transition from a universal to a specialized linguist
- New figure 6.9, summarizing language milestones in infancy
- New discussion of link between level of maternal language and vocabulary growth in infants, including new figure 6.10

"This chapter is a very good one; excellent."

—JULIA RUX, *Georgia Perimeter College*



CHAPTER 7 Socioemotional Development in Infancy

- New section on social referencing
- New section on self-regulation of emotion and coping in infancy
- New discussion of separation protest, including new figure 7.1, showing how separation protest peaks between 13 and 15 months of age in four different cultures
- Discussion of contextual influences on self-regulation of emotion in infancy
- Expanded coverage of the contemporary view of temperament in terms of positive affect and approach, negative affectivity, and effortful control (self-regulation)
- New section on gender, culture, and temperament including recent theory and research (Putnam, Sanson, & Rothbart, 2002)
- Expanded discussion of culture and attachment, including new figure 7.5 on infant attachment in the United States, Germany, and Japan

"The sections on temperament and attachment are very good. In general, this chapter is very strong."

—ALAN FOGEL, *University of Utah*



CHAPTER 8 Physical and Cognitive Development in Early Childhood

- Expansion of discussion on changes in the brain in early childhood, including recent research on neural circuits (Krimel & Golman-Rakic, 2001), and new figure 8.2 on the prefrontal cortex's role in attention and memory
- Expanded coverage of handedness, including new material on the origin and development of handedness, the brain and language, and links of handedness to other abilities
- Addition of recent research on the effects of environmental tobacco smoke on children's respiratory problems and levels of vitamin C (Maninno & others, 2001; Strauss, 2001)

- New figure 8.5, showing the main causes of death in young children in the United States (National Vital Statistics Reports, 2001)
- New discussion of recent study comparing children from a traditional school and children from a Vygotsky-based collaborative school (Matusov, Bell, & Rogoff, 2001)
- New study showing a link between speed of processing information and children's math and reading achievement (Hitch, Towse, & Hutton, 2001)
- Clearer presentation of theory of mind and new figure 8.15 on developmental changes in false belief (Wellman, Cross, & Watson, 2001)
- Expanded coverage of language development in young children

"This is a textbook that I have used for a number of years, and I continue to use it because it is written in an approachable way and its heart is in the right place."

—JEAN BERKO GLEASON, *Boston University*



CHAPTER 9 Socioemotional Development in Early Childhood

- New section on the development of self-conscious emotions, such as pride, shame, and guilt
- New section on co-parenting
- New section on punishment and discipline in discussion of parenting, including cross-cultural comparisons of punishment, and new figure 9.5 on recent cross-cultural research
- New figure 9.7 on Hetherington and Kelly's (2002) research on the effects of divorce on children's adjustment
- Extensive revision and updating of culture, ethnicity, and families, including recent research (Coll & Pachter, 2002; McAdoo, 2002)
- New Sociocultural Worlds of Development box, Acculturation and Ethnic Minority Parenting, based on Cynthia Garcia Coll and Lee Patcher's ideas
- New discussion of recent longitudinal study on the effects of watching educational TV programs on children's achievement and aggression (Anderson & others, 2001).

"The coverage in this chapter is excellent and the new work on punishment and TV are welcome updates."

—ROSS PARKE, *University of California—Riverside*



CHAPTER 10 Physical and Cognitive Development in Middle and Late Childhood

- Recent data on the percentage increase of U.S. children who are overweight (NHANES, 2001)

- New figure 10.1, showing the dramatic decrease in the percentage of children taking daily P.E. classes in the U.S. from 1969 to 1999 (Health Management Resources, 2001)
- New research on Ritalin, behavior management, and ADHD (Swanson & others, 2001)
- Updated, expanded discussion of whether there is evidence for general intelligence (Brody, 2001)
- Updated coverage of language development
- Substantial update of reading issues, including new figure 10.10 on the link between daily reading time and reading achievement
- Expanded coverage of bilingual education, including Kenji Hakuta's (2000) research on how long it takes for language minority students to learn to read and speak English
- New figure 10.11, showing the relation of age of arrival in the United States with grammar proficiency

"Overall, I think this is an excellent chapter. . . . All of the important topics in this area are covered and the topics are well-balanced."

—TORU SATO, *Shippensburg University*



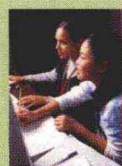
CHAPTER 11

Socioemotional Development in Middle and Late Childhood

- New section on coping with stress, including recommendations on how to help children cope effectively with terrorist attacks, such as 9/11/01 (Gurwitch & others, 2001; La Greca & others, 2002)
- New material on gender differences in brain structure and function (Frederikse & others, 2001; Halpern, 2001; Swaab & others, 2001)
- New data presented from the National Assessment of Educational Progress (2001) on gender and science and gender and reading scores, including new figure 11.3 on reading
- Updated coverage of stepfamilies, including Hetherington's most recent findings (Hetherington & Kelly, 2002)
- New graph (figure 11.5) of bullying behaviors in the United States (Nansel & others, 2001)
- New graph of data (figure 11.6) of Stevenson's research on Asian and U.S. children's math achievement

"Very well done with extremely current reference material."

—MYRA MARCUS, *Florida Gulf Coast University*



CHAPTER 12

Physical and Cognitive Development in Adolescence

- Added recent cross-cultural data on the age of initiation of intercourse (Singh & others, 2000)

- New research on pathways to adversity in early childbearers (Jaffe, 2002)
- Revised and updated coverage of adolescent drug use (Johnston, O'Malley, & Bachman, 2001)
- New figure 12.7, Ecstasy and the adolescent's brain, including two brain scans, one of a normal adolescent brain, the other of an adolescent brain under the influence of Ecstasy
- New studies on links between parents, peers, and drug use in adolescence (National Center on Addiction and Substance Abuse, 2001; Simons-Morton & others, 2001). Also new longitudinal study focused on early childhood predictors of early onset of substance abuse in 10- to 12-year-olds (Kaplow & others, 2002)
- New overview of research on eating disorders in adolescents with descriptions of a number of recent studies (Dowda & others, 2001; Field & others, 2001; Graber & Brooks-Gunn, 2001), including new figure 12.8 on the dramatic increase in obesity in adolescence in the last 40 years
- New study on factors involved in binge eating in adolescent girls (Stice, Presnell, & Spangler, 2002)
- New graph (figure 12.9) on U.S. high school dropouts from different ethnic groups
- New section on how to improve U.S. high schools (Dornbusch & Kaufman, 2001; National Commission on the High School Senior Year, 2001)

"This chapter is so well written and the illustrations are so effective that I cannot add any suggestions to make it stronger."

—BARBA PATTON, *University of Houston–Victoria*



CHAPTER 13

Socioemotional Development in Adolescence

- New section on self-esteem, highlighting the decline in self-esteem during adolescence, especially for girls, including new figure 13.1 (Robins & others, in press)
- New discussion of gender differences in autonomy granting by parents based on recent research (Bumpus, Crouter, & McHale, 2001)
- Recent research comparing parent-adolescent conflict, autonomy, and peer orientation in Japanese and U.S. youth
- New research showing the link between active parental monitoring and guidance and more positive adolescent peer relations and lower drug use (Mounts, 2002)
- New figure 13.5 on developmental changes in the age of onset of romantic activity (Buhrmester, 2001)
- New coverage of research on dating and romantic involvement of Latinas (Raffaelli & Ontai, in press)
- New research on Fast Track, a intervention designed to prevent adolescent problems (The Conduct Problems Prevention Research Group, 2002)
- New research by Richard Savin-Williams (2001) showing that earlier statements about estimates of suicide by gay youth were exaggerated

- New research showing links between degree of acculturation and adolescent problems (Gonzales & others, in press; Roosa & others, 2002)

"The new additions to this chapter are excellent."

—ROSS PARKE, *University of California–Riverside*



CHAPTER 14

Physical and Cognitive Development in Early Adulthood

- Expanded discussion of emerging adulthood, including cross-cultural comparisons, and new figure 14.1 on self-perceptions of adult status
- Extensive new research on adapting to college, including stress in college, what makes college students very happy, the role of ethnicity and gender in health, and the roles of optimism and family factors in adapting to college (Brisette, Scheier, & Carver, 2002; Courtenay, McCreary, & Merighi, 2002; Diener & Seligman, 2002; Sax & others, 2001)
- Recent research on alcohol use during college and new coverage of cultural variations in alcohol use (Wechsler & others, 2002) and new figure 14.7 on the decline in substance use after college (Bachman & others, 2002)
- New figure 14.4 on the role of leptin in obesity
- New section on gender, ethnicity, and obesity
- Completely updated discussion of dual-career couples, including recent data on the increased time spent by men in family tasks; new figure 14.14 (Hyde & Barnett, 2001)

"This chapter rates an 'A.' The text covers the material very well. . . . The topics are most interesting and insightful. . . . The clarity is just what you would expect from John Santrock. . . . I have reviewed almost every other text available for this course and have not found one that I think would be comparable to John Santrock's text."

—BARBA PATTON, *University of Houston–Victoria*



CHAPTER 15

Socioemotional Development in Early Adulthood

- New figure 15.2 on the effects that mere exposure to someone has on the extent to which the person is liked
- New study on women's and men's views of love (Fehr & Broughton, 2001)
- Completely revamped discussion of loneliness, including new section on loneliness and technology
- New national survey on young adults' perceptions of marriage (Whitehead & Popenoe, 2001)
- New discussion of the anxiety that many childless, highly successful women have (Hewlett, 2002)

- New coverage of Hetherington's recent research on the six pathways that divorced adults follow (Hetherington & Kelly, 2002) and new discussion of recommended strategies for divorced adults

"This chapter covers a wider range of topics than some other texts and I consider that a strength."

—CYNTHIA REED, *Tarrant County College*



CHAPTER 16

Physical and Cognitive Development in Middle Adulthood

- New coverage of recent research suggesting that many people in their sixties and even seventies say that they are in middle age (Lachman, Maier, & Budner, 2000; National Council on Aging, 2000)
- New discussion of George Vaillant's recent presentation of new data from his longitudinal study of aging and new figure 16.1 based on this study that focuses on the link between characteristics in middle age and successful aging at 75 to 80 years of age
- New figure 16.2 on the relation of age and gender to cardiovascular disease and new section on lungs, including figure 16.3 on the relation of lung capacity to age and cigarette smoking
- New figure 16.4 on self-rated health at different points in adulthood (National Center for Health Statistics, 1999)
- New research on links between personality factors and health in a large longitudinal study (Aldwin & others, 2001)
- Updated, revised discussion of menopause and hormone replacement therapy
- New discussion of researcher Denise Park's (2001) view on why working memory declines in middle age
- New section on work in midlife

"I was very impressed with the quality of this chapter. . . . It is well conceived, well-written, and attractive."

—JAMES BIRREN, *University of California, Los Angeles*



CHAPTER 17

Socioemotional Development in Middle Adulthood

- New discussion of Vaillant's (2002) longitudinal study showing a link between generativity in middle age and marital quality at 75 to 80 years of age
- Discussion of recent longitudinal study of generativity and identity certainty from the thirties through the fifties (Stewart, Ostrove, & Helson, 2001), including two new figures, figure 17.1 and figure 17.2

- Updated information about the women in the Mills College study conducted by Ravenna Helson, who most recently were assessed in their fifties
- New research on link between earlier support by parents and later support of aging parents by adult children (Silverstein & others, 2002)
- New description of six characteristics in midlife, including purpose in life, autonomy, and environmental mastery, based on Ryff and Keyes' (1998) research, including new figure 17.5
- New discussion of recent study on gender differences in personality traits in 26 countries (Costa, Terracciano, & McCrae, 2001)
- Updated and expanded conclusions about stability and change in personality development in middle adulthood, including the view of Caspi and Roberts (2001) that stability increases in the fifties and sixties

"Both chapters 16 and 17 are great. . . . The coverage is very good."

—JAMES REID, *Washington University*



CHAPTER 18

Physical Development in Late Adulthood

- New Sociocultural Worlds of Development box on living longer in Okinawa, including new figure 18.2 (Willcox, Willcox, & Suzuki, 2002)
- New figure 18.4 on the decrease in brain lateralization in older adults based on recent research (Cabeza, 2002)
- New research from the McArthur Studies of Successful Aging on factors linked with improved physical functioning in older adults (Seeman & Chen, 2002)
- New discussion of ethnicity and U.S. death rates (Centers for Disease Control and Prevention, 2002)
- Recent data on the percentage of men from 65 to 80 and over 80 who have erection difficulties (Butler & Lewis, 2002)
- Expanded, updated discussion of calorie restriction and longevity (Goto & others, 2002; Johannes, 2002)
- Extensive updating of research on exercise and aging (Singh, 2002)
- New discussion of general slowdown in central nervous system functioning
- New dramatic figure 18.5 showing new brain cells generated in an adult male as a consequence of exercise and an enriched environment
- New research on the link between B vitamins and cognitive performance in older adults (Calvaresi & Bryan, 2001)

"In many ways, John Santrock has successfully translated the data on aging into terms that will be understandable to the undergraduate and has done an excellent job of presenting material that focuses on positive images of aging."

—SUSAN WHITBOURNE, *University of Massachusetts, Amherst*



CHAPTER 19

Cognitive Development in Late Adulthood

- New section on aging and attention that focuses on selective attention, divided attention, and sustained attention
- New section on prospective memory and the complexity of age changes involved
- New figure 19.2 on the relation of age to speed of processing as measured by reaction time and new research on the role of exercise in preventing cognitive decline in older adults (Yaffe & others, 2001)
- New discussion of longitudinal study on engaging in stimulating cognitive activities and its link to a lower incidence of Alzheimer's disease (Wilson & others, 2002)
- New research on the link between chronic mild depression in older adults and reduced immune system functioning (McGuire, Kiecolt-Glaser, & Glaser, 2002)
- New research on the link between gender, depression, and aging from 50 to 80, including new figure 19.5 (Barefoot & others, 2001)
- Discussion of new research on religiosity and church attendance in the last year of life (Idler, Stanislav, & Hays, 2001)

"This chapter provides a good overview of major issues and findings."

—JOANN MONTEPARE, *Emerson College*



CHAPTER 20

Socioemotional Development in Late Adulthood

- New figure 20.3 based on national study of changes in positive and negative emotions in older and younger adults
- New section on self-esteem, including discussion of recent large-scale study of developmental changes in self-esteem and new figure 20.5 (Robins & others, 2002)
- New section on changes in self-acceptance across the adult years, including new figure 20.6
- New section on personal control, highlighting Heckhausen's theory and research on primary and secondary control strategies and new figure 20.7 to illustrate developmental changes in these processes across the life span
- New material on links of depression and lower life satisfaction to not having a close friend as an older adult (Antonucci, Lansford, & Akiyama, 2001)

"This chapter has good coverage of major issues."

—JOANN MONTEPARE, *Emerson College*



CHAPTER 21

Death and Grieving

- New research on the economic consequences of widowhood in the U.S. and Germany (Hungerford, 2001)
- New research on the role of psychological and religious factors in the well-being of older adults after the death of a spouse (Fry, 2001)
- New discussion of palliative care (Chochinov, 2002)
- Update on Oregon's active euthanasia through 2001
- Increased coverage of end-of-death issues (Wilson & Truman, 2002)

"This chapter is another 'A.' It is very insightful about the last stanza of human life."

—BARBA PATTON, *University of Houston–Victoria*

ACKNOWLEDGMENTS

I very much appreciate the support and guidance provided to me by many people at McGraw-Hill. Steve Debow, President, and Thalia Dorwick, Editor-in-Chief, have been truly outstanding in their administration of the social sciences area of McGraw-Hill Higher Education. Steve Rutter, Publisher, has brought a wealth of publishing knowledge and vision to bear on improving this book. This is the second edition of *Life-Span Development* that Rebecca Hope has been the editor. She is a wonderful editor who has made very competent decisions and provided valuable advice about many aspects of the ninth edition. Judith Kromm, Senior Developmental Editor, orchestrated important changes in the manuscript. The new edition has considerably benefited also from the energy, organization, and wisdom of Kate Russillo, Editorial Assistant. Melissa Caughlin, Marketing Manager, has contributed in numerous creative ways to this book, as did Chris Hall, the former Marketing Manager. Marilyn Rothenberger was a superb project manager and Bea Sussman did a stellar job in copyediting the book.

EXPERT CONSULTANTS

Life-span development has become an enormous, complex field and no single author can possibly be an expert in all areas of the field. To solve this problem, beginning with the sixth edition, I have sought the input of leading experts in many different areas of life-span development. This tradition continues in the ninth edition. The experts have provided me with detailed recommendations on new research to include for every period of the life span.

The panel of experts who contributed to the ninth edition literally is a who's who register for the field of life-span

development. Their photographs and biographies appear on pages xxvii through xxix. Here are the names and areas of expertise of those individuals, whose invaluable feedback and evaluations I gratefully acknowledge:

- K. Warner Schaie**, *Pennsylvania State University* One of the architects of the field of adulthood and aging
- James Birren**, *University of California, Los Angeles* A major contributor to the field of aging
- Yvette R. Harris**, *Miami University (Ohio)* An expert on the effects of ethnicity on cognitive, intellectual, academic, and occupational development
- Ross Parke**, *University of California at Riverside* One of the world's leading authorities on family processes and children's socioemotional development
- Jean Berko Gleason**, *Boston University* One of the world's leading experts on children's language development
- Scott Miller**, *University of Florida* An authority on children's cognitive development
- Carolyn Saarni**, *Sonoma State University* An expert on children's emotional development
- Alan Fogel**, *University of Utah* A leading figure in the study of infant development
- Susan Whitbourne**, *University of Massachusetts, Amherst* An expert on adult development and aging
- James Reid**, *Washington University* An expert on middle adulthood and aging
- Marian Underwood**, *University of Texas at Dallas* An expert on peer relations and socioemotional development
- Gilbert Gottlieb**, *University of North Carolina* A leading figure in biological foundations of development
- Barba Patton**, *University of Houston–Victoria* An expert on education
- Bert Hayslip**, *University of North Texas* An expert on the topics of death and grieving

GENERAL TEXT REVIEWERS

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Pre-Revision Reviewers

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- Dana Davidson**, *University of Hawaii at Manoa*
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- Donna Horbury**, *Appalachian State University*
- Steven J. Kohn**, *Nazareth College*
- Christine Malecki**, *Northern Illinois University*
- Robert McLaren**, *California State University at Fullerton*
- Leslee Pollina**, *Southeast Missouri State University*

Cynthia Reed, *Tarrant County College—Northeast Campus*
 Edythe Schwartz, *California State University at Sacramento*

Ninth Edition Reviewers

John Biondo, *Community College of Allegheny County*
 Michelle Boyer-Pennington, *Middle Tennessee State University*
 Andrea Clements, *East Tennessee State University*
 Caroline Gould, *Eastern Michigan University*
 Tom Gray, *Laredo Community College*
 Michele Gregoire, *University of Florida—Gainesville*
 Gary Gute, *University of Northern Iowa*
 Derek Isaacowitz, *Brandeis University*
 Christina Jose-Kampfner, *Eastern Michigan University*
 Amanda Kowal, *University of Missouri*
 Myra Marcus, *Florida Gulf Coast University*
 Joann Montepare, *Emerson College*
 Kimberley Howe Norris, *Cape Fear Community College*
 Laura Overstreet, *Tarrant County College—Northeast*
 Julia Rux, *Georgia Perimeter College*
 Gayla Sanders, *Community College of Baltimore County—Essex*
 Toru Sato, *Shippensburg University*
 Lisa Scott, *University of Minnesota*
 Collier Summers, *Florida Community College*
 Debbie Tindell, *Wilkes University*

EXPERT CONSULTANTS FOR PREVIOUS EDITIONS

Beginning with the sixth edition, expert consultants have provided extremely valuable feedback to me. These leading figures in the field of life-span development served as expert consultants on editions 6 through 8: **Toni C. Antonucci**, *University of Michigan, Ann Arbor*; **Paul Baltes**, *Max Planck Institute for Human development*; **Diana Baumrind**, *University of California, Berkeley*; **Carol Beal**, *University of Massachusetts at Amherst*; **Marc H. Bornstein**, *National Institute of Child Health & Development*; **Sue Bredekamp**, *National Association for the Education of Young Children*; **Urie Bronfenbrenner**, *Cornell University*; **Rosalind Charlesworth**, *Weber State University*; **Florence Denmark**, *Pace University*; **Joseph Durlack**, *Loyola University*; **Glen Elder**, *University of North Carolina, Chapel Hill*; **Tiffany Field**, *University of Miami*; **Julia Graber**, *Columbia University*; **Sandra Graham**, *University of California, Los Angeles*; **Jane Halonen**, *Alverno College*; **Algea O. Harrison-Hale**, *Oakland University*; **Craig Hart**, *Brigham Young University*; **Ravenna Helson**, *University of California, Berkeley*; **Cigdem Kagitcibasi**, *Koc University (Turkey)*; **Robert Kastenbaum**, *Arizona State University*; **Gisela Labouvie-Vief**, *Wayne State University*; **Barry M. Lester**, *Women and Infant's Hospital*; **Jean M. Mandler**, *University of California—San Diego*; **James Marcia**, *Simon Fraser University*; **Phyllis Moen**, *Cornell University*; **K. Warner Schaie**, *Pennsylvania State University*; **Jan Sinnott**, *Towson State University*; **Margaret Beale Spencer**, *University of Pennsylvania*; **Ross A. Thompson**, *University of Nebraska—Lincoln*.

REVIEWERS OF PREVIOUS EDITIONS

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Kathleen Day Hulbert, *University of Massachusetts, Lowell*; **Kathryn French Iroz**, *Utah Valley State College*; **Erwin Janek**, *Henderson State University*; **James Jasper-Jacobsen**, *Indiana University—Purdue*; **Ursula Joyce**, *St. Thomas Aquinas College*; **Seth Kalichman**, *Loyola University*; **Barbara Kane**, *Indiana State University*; **Kevin Keating**, *Broward Community College*; **James L. Keeney**, *Middle Georgia College*; **Elinor Kinarthy**, *Rio Hondo College*; **Karen Kirkendall**, *Sangamon State University*; **A. Klingner**, *Northwest Community College*; **Jane Krump**, *North Dakota State College of Science*; **Joseph C. LaVoie**, *University of Nebraska at Omaha*; **Jean Hill Macht**, *Montgomery County Community College*; **Salvador Macias**, *University of South Carolina—Sumter*; **Karen Macrae**, *University of South Carolina*; **Kathy Manuel**, *Bossier Parish Community College*; **Allan Mayotte**, *Riverland Community College*; **Susan McClure**, *Westmoreland Community College*; **Dorothy H. McDonald**, *Sandhills Community College*; **Robert C. McGinnis**, *Ancilla College*; **Clara McKinney**, *Barstow College*; **Sharon McNeeley**, *Northeastern Illinois University*; **Heather E. Metcalfe**, *University of Windsor*; **Karla Miley**, *Black Hawk College*; **Jessica Miller**, *Mesa State College*; **Teri M. Miller-Schwartz**, *Milwaukee Area Technical College*; **David B. Mitchell**, *Loyola University*; **Martin D. Murphy**, *University of Akron*; **Malinda Muzi**, *Community College of Philadelphia*; **Gordon K. Nelson**, *Pennsylvania State University*; **Michael Newton**, *Sam Houston State University*; **Beatrice Norrie**, *Mount Royal College*; **Jean O’Neil**, *Boston College*; **Pete Peterson**, *Johnson County Community College*; **Richard Pierce**, *Pennsylvania State University—Altoona*; **David Pipes**, *Caldwell Community College*; **Robert Poresky**, *Kansas State University*; **Christopher Quarto**, *Middle Tennessee State University*; **Bob Rainey**, *Florida Community College*; **Nancy Rankin**, *University of New England*; **H. Ratner**, *Wayne State University*; **Russell Riley**, *Lord Fairfax Community College*; **Mark P. Rittman**, *Cuyahogo Community College*; **Clarence Romeno**, *Riverside Community College*; **Paul Roodin**, *SUNY—Oswego*; **Ron Russac**, *University of North Florida*; **Nancy Sauerman**, *Kirkwood Community College*; **Cynthia Scheibe**, *Ithica College*; **Robert Schell**, *SUNY—Oswego*; **Owen Sharkey**, *University of Prince Edward Island*; **Elisabeth Shaw**, *Texarkana College*; **Susan Nakayama Siaw**, *California State Polytechnical University*; **Vicki Simmons**, *University of Victoria*; **Gregory Smith**, *University of Maryland*; **Jon Snodgrass**, *California State University—LA*; **Donald Stanley**, *North Dallas Community College*; **Jean A. Steitz**, *The University of Memphis*; **Barbara Thomas**, *National University*; **Stacy D. Thompson**, *Oklahoma State University*; **Stephen Truhon**, *Winston-Salem State University*; **James Turcott**, *Kalamazoo Valley Community College*; **Gaby Vandergiessen**, *Fairmount State College*; **Stephen Werba**, *The Community College of Baltimore County—Catonsville*; **B. D. Whetstone**, *Birmingham Southern College*; **Nancy C. White**, *Reynolds Community College*; **Lyn W. Wickelgren**, *Metropolitan State College*; **Ann M. Williams**, *Luzerne County Community College*; **Myron D. Williams**, *Great Lakes Bible College*; **Linda B. Wilson**, *Quincy College*.

SUPPLEMENTS

The ninth edition of *Life-Span Development* is accompanied by a comprehensive and fully integrated array of supplemental materials, both print and electronic, written specifically for instructors and students of life-span development. In addition, a variety of generic supplements are available to further aid in the teaching and learning of life-span development.

For the Instructor

Once again, based on comprehensive and extensive feedback from instructors, we spent considerable time and effort in expanding and improving the ancillary materials.

Instructor’s Manual *Christine Malecki* This comprehensive manual provides a variety of useful tools for both seasoned instructors and those new to the life-span development course. The instructor’s manual provides these tools, all of which are tied to the text’s Learning Goals as appropriate:

- A focused introductory section on teaching life-span development. This section covers helpful material for new instructors, including course-planning ideas, teaching tips, and teaching resources.
- A Total Teaching Package Outline begins each chapter. It features a fully integrated outline to help instructors better use the many resources for the course. Most of the supplementary materials offered in conjunction with *Life-Span Development*, ninth edition, are represented in this outline and have been correlated to the main concepts in each chapter.
- Lecture suggestions, classroom activities, out-of-class activities, research projects, and critical thinking multiple-choice and essay exercises, all of which provide answers where appropriate.
- Classroom activities now provide logistics for required materials, such as accompanying handouts, varying group sizes, and time needed for completion.
- Greatly expanded chapter outlines and personal application projects where students can apply development topics to their own lives.
- Comprehensive transparency, film, and video resources, updated URLs for useful Internet sites, and chapter maps derived from the textbook that can be used for lecture aids.

Printed Test Bank *Angela Sadowski* This comprehensive Test Bank has once again been extensively revised to include over 2,400 multiple-choice and short-answer/brief essay questions for the text’s 21 chapters. Each multiple-choice item is classified as factual, conceptual, or applied, as defined by Benjamin Bloom’s taxonomy of educational objectives. New to this edition, each test question is now keyed to a chapter learning goal,

and the test bank notes which learning goal each item addresses. In response to customer feedback, this Test Bank also provides page references that indicate where in the text the answer to each item can be found.

PowerPoint Slide Presentations The chapter-by-chapter PowerPoint lectures for this edition integrate the text's learning goals, and provide key text material and illustrations, as well as additional illustrations and images not found in the textbook. These presentations are designed to be useful in both small- and large-lecture settings, and are easily tailored to suit an individual instructor's lectures.

Computerized Test Bank on CD-ROM The computerized test bank contains all of the questions in the printed test bank and can be used in both Windows and Macintosh platforms. This CD-ROM provides a fully functioning editing feature that enables instructors to integrate their own questions, scramble items, and modify questions.

The McGraw-Hill Developmental Psychology Image Bank This set of 200 full-color images was developed using the best selection of our human development art and tables and is available online for both instructors and students on the text's Online Learning Center.

Online Learning Center The extensive website designed specifically to accompany Santrock, *Life-Span Development*, ninth edition, offers an array of resources for both instructor and student. For instructors, the website includes a full set of PowerPoint Presentations, hotlinks for the text's topical web links that appear in margins and for the Taking It to the Net exercises that appear at the end of each chapter. These resources and more can be found by logging on to the website at <http://www.mhhe.com/santrockld9>.

Annual Editions—Developmental Psychology Published by Dushkin/McGraw-Hill, this is a collection of articles on topics related to the latest research and thinking in human development. These editions are updated annually and contain helpful features including a topic guide, an annotated table of contents, unit overviews, and a topical index. An Instructor's Guide containing testing materials is also available.

Sources: Notable Selections in Human Development This volume presents a collection of more than 40 articles, book excerpts, and research studies that have shaped the study of human development and our contemporary understanding of it. The selections are organized topically around major areas of study within human development. Each selection is preceded by a headnote that establishes the relevance of the article or study and provides biographical information about the author.

Taking Sides This debate-style reader is designed to introduce students to controversial viewpoints on the field's most crucial issues. Each issue is carefully framed for the student, and the pro and con essays represent the arguments of leading scholars and commentators in their fields. An Instructor's Guide containing testing material is available.

For the Student

Student Study Guide *Barba Patton* The revised Study Guide provides a complete introduction for students on how best to use each of the various study aids plus invaluable strategies on setting goals, benefiting from class, reading for learning, taking tests, and memory techniques in the section "Being an Excellent Student." Each Study Guide chapter begins with an outline of the chapter that also directs students to additional resources available for the study of specific topics or concepts. Resources referenced include the text's Online Learning Center and Student CD-ROM. The Study Guide also now thoroughly integrates the learning goals provided in each text chapter. The self-test sections contain multiple-choice questions and comprehensive essays with suggested answers, all of which are keyed to the learning goals. Self-tests also include matching sets on key people found in the text and word scramblers on key terms found in the text. Finally, the Study Guide also includes out-of-class projects such as personal application projects and Internet exercises that complement the revised student research projects and allow for more effective student learning.

Interactive CD-ROM for Students This user-friendly CD-ROM gives students an opportunity to test their comprehension of the course material. Prepared specifically to accompany Santrock, *Life-Span Development*, ninth edition, this CD-ROM provides 25 multiple-choice questions for each chapter to help students further test their understanding of key concepts. Feedback is provided for each question's answer. In addition, the CD-ROM provides a Learning Assessment questionnaire to help students discover which type of learner they are, of the three types covered in the program.

Online Learning Center The extensive website designed specifically to accompany Santrock, *Life-Span Development*, ninth edition, offers an array of resources for instructors and students. For students, the website includes interactive quizzing and exercises as well as hotlinks for the text's topical web links that appear in the margins and for the *Taking It to the Net* exercises that appear at the end of each chapter. An important new feature in this edition is the inclusion of many self-assessments related to chapter topics. These resources and more can be found by logging on to the website at <http://www.mhhe.com/santrockld9>.

Guide to Life-Span Development for Future Educators and ***Guide to Life-Span Development for Future Nurses*** These new course supplements help students apply the concepts of human development to education. They contain information, exercises, and sample tests designed to help students prepare for certification and understand human development from a professional perspective.

Resources for Improving Human Development This informative booklet provides descriptions and contact information for organizations and agencies that can provide helpful information, advice, and support related to particular problems or issues in life-span development. Recommended books and journals are also described and included. The booklet is organized by chronological order of the periods of the life span.

Expert Consultants



K. Warner Schaie

K. Warner Schaie was one of the pioneers who created and shaped the field of life-span development. He continues to be one of the world's leading experts on adult development and aging. Schaie is currently the Evan Pugh Professor of Human Development and Psychology and Director of the Gerontology Center at the Pennsylvania State University. He also

holds an appointment as Affiliate Professor of Psychiatry and Behavioral Science at the University of Washington. Schaie received his Ph.D. in psychology from the University of Washington and an honorary doctorate from the Friedrich-Schiller-University of Jena,

Germany. He was honored with the Kleemeier Award for Distinguished Research Contributions from the Gerontological Society of America and the Distinguished Scientific Contributions award from the American Psychological Association. He is author or editor of 32 books including the textbook *Adult Development and Aging* (with S. L. Willis) and the *Handbook of the Psychology of Aging* (with J. E. Birren), both of which are now in their fifth edition. He has directed the Seattle Longitudinal Study of cognitive aging since 1956 and is the author of more than 250 journal articles and chapters on the psychology of aging. His current research interest focuses on the life course of adult intelligence, its antecedents and modifiability, as well as methodological issues in the developmental sciences.



James E. Birren

James E. Birren is a pioneering figure in the field of life-span development and continues to be one of the world's leading experts on adult development and aging. He currently is Associate Director of the UCLA Center on Aging and is also Professor Emeritus of Gerontology and Psychology at the University of Southern California. Birren received his M.A. and

Ph.D. from Northwestern University, and has been a Visiting Scientist at the University of Cambridge, England, and a Fellow at the Center for Advanced Study in the Behavioral Sciences at Stanford University. Birren's career includes serving as founding Executive Director and Dean of the Gerontology Center at the University of Southern

California, as well as Past President of the Gerontological Society of America, the Western Gerontological Society, and the Division on Adult Development and Aging of the American Psychological Association. In addition, he has served as Chief of the Section on Aging of the National Institutes of Mental Health. His awards include the Brookdale Foundation Award for Gerontological Research; honorary doctorates from the University of Gothenburg, Sweden, Northwestern University, and St. Thomas University, Canada; the Gerontological Society Award for Meritorious Research; the Sandoz Prize for Gerontological Research; and the Canadian Association of Gerontology Award for Outstanding Contribution to Gerontology. Birren is Series Editor of the internationally recognized *Handbooks on Aging* and has published more than 250 academic journal articles and books.



Yvette R. Harris

Yvette R. Harris is a leading expert on diversity. She received her Ph.D. from the University of Florida and is currently a faculty member in the Department of Psychology at Miami University in Oxford, Ohio. Harris, a cognitive-developmental psychologist, has authored and co-authored articles on African-

American children and academic achievement, and maternal-child learning interaction in African-American families. She has been the recipient of awards from the National Science Foundation and the Murray Research Center to support her research on maternal-child interaction.



Ross Parke

Ross Parke is one of the world's leading experts on socioemotional development. He currently is Distinguished Professor of Psychology and Director of the Center for Family Studies at the University of California, Riverside. Parke obtained his Ph.D. from the University of Waterloo, Ontario, Canada. He is a Past President of Division 7 (Developmental Psychology)

of the American Psychological Association and has received the G. Stanley Hall Award from this APA division. He is a Fellow of the American Association for the Advancement of Science. Parke cur-

rently is editor of the *Journal of Family Psychology*, having previously served as editor of *Developmental Psychology* and as associate editor of *Child Development*. He is the author of *Fatherhood* and co-author of two books: *Throwaway Dads* and *Child Psychology*, fifth edition, revised. Parke is also the co-editor of these books: *Family-Peer Relationships*; *Children in Time and Place*; and *Exploring Family Relationships with Other Social Contexts*. Parke is well known for his pioneering research on punishment, aggression, child abuse, and the father's role. His current work focuses on the links between family and peer social systems and on the impact of economic stress on families of diverse ethnic backgrounds.



Jean Berko Gleason

Jean Berko Gleason is one of the world's leading experts on child language. She is a Professor in the Department of Psychology at Boston University and also a faculty member and former director of Boston University's Graduate Program in Applied Linguistics. Berko Gleason has been a Visiting Scholar at Stanford University, Harvard, and the Linguistics Institute of the Hungarian Academy of Sciences in Budapest. She received her undergraduate and graduate degrees from

Harvard/Radcliffe and has been President of the International Association for the Study of Child Language. Berko Gleason is the author and editor of leading textbooks on language development and psycholinguistics. Since writing her doctoral dissertation on how children learn to make plurals and past tenses in English, she has published over one hundred articles on aphasia, language attrition, language development in children, gender differences in parents' speech, and cross-cultural differences. Her work is frequently cited in the professional literature, and has been featured in the popular press and on television.



Carolyn Saarni

Carolyn Saarni is one of the world's leading experts on children's emotional development. She received her Ph.D. from the University of California at Berkeley and her first academic appointment was at New York University. Since 1980 Saarni has been a Professor and subsequently Chair of the Graduate Department of Counseling at Sonoma State University in California where she trains prospective marriage, family, child counselors and school counselors. Her research has focused on how children learn that they can adopt an *emotional front*—that is, what they express emotionally does not need to match what they really feel. She

has also investigated how children use this knowledge strategically in their interpersonal relations with others as well as when coping with aversive feelings. Her research has been funded by the National Science Foundation and the Spencer Foundation, among others. Saarni has co-edited several books on children's emotional development and most recently published *The Development of Emotional Competence*. The thesis of this book is that the skills of emotional competence are contextualized by culture, including moral values and beliefs about "how emotion works." She has also authored numerous chapters and articles on children's emotional development and is regularly consulted by the popular media on topics concerning emotional development in children and youth.



Alan Fogel

Alan Fogel is one of the world's leading experts on infant development. He is currently a Professor of Psychology at the University of Utah in Salt Lake City and previously held a faculty position at Purdue University. Fogel obtained his undergraduate degree at the University of Miami (Florida), his masters degree at Columbia University, and his Ph.D. at the University of Chicago. He is a Fellow of the American Psychological

Association and has been an active contributor to research on infant socioemotional development. He especially is known for his application of dynamic systems theory to the study of developmental change. Fogel's theoretical perspective is best summarized in two books he has authored: *Developing through Relationships* and *Infancy: Infant, Family, and Society*, fourth edition. Further information about Alan Fogel's perspective and research can be found at http://www.psych.utah.edu/alan_fogels_infant_lab/.



Susan Krauss Whitbourne

Susan Krauss Whitbourne is a leading expert on adult development and aging. She is currently a Professor of Psychology at the University of Massachusetts at Amherst. Whitbourne obtained her Ph.D. in developmental psychology from Columbia University and completed postdoctoral training in clinical psychology at University of Massachusetts. Prior to joining the University of Massachusetts faculty, she was a faculty member at the University of Rochester and SUNY College at Geneseo. Her teaching has been recognized with the College Outstanding

Teacher Award and the University Distinguished Teaching Award. Over the past 25 years, Whitbourne has held a variety of elected and appointed positions in Division 20 (Adult Development and Aging) of the American Psychological Association (APA), including President. Whitbourne is also a Fellow of the Gerontological Society of America. Her publications include 14 published books and 2 in preparation, as well as nearly 100 articles and chapters in leading research journals and books. She has been a consulting editor for *Psychology and Aging*, and serves on the editorial board of the *Journal of Gerontology*. Whitbourne has made more than 175 presentations, including a number of invited addresses, at professional conferences.


Marion K. Underwood

Marion K. Underwood is a leading researcher in children's socioemotional development. She obtained her undergraduate degree from Wellesley College and her doctoral degree in clinical psychology from Duke University. Underwood began her faculty career at Reed College in Portland, Oregon, and is currently a Professor at the University of Texas at

Dallas. Her research examines anger, aggression, and gender, with special attention to the development of social aggression among girls. Underwood's research has been published in numerous scientific journals and her research program has been supported by the National Institutes of Mental Health. She authored the forthcoming book, *Ice and Fire: Social Aggression in Girls*. Underwood also received the 2001 University of Texas Chancellor's Council Outstanding Teacher of the Year Award.


Gilbert Gottlieb

Gilbert Gottlieb is one of the world's leading experts on early development. He currently is Research Professor of Psychology in the Center for Developmental Science at the University of North Carolina at Chapel Hill. He held positions at the University of North Carolina at Greensboro and Dorothea Dix Hospital in Raleigh, after receiving his Ph.D. from

Duke University, where he was the first graduate from the joint Psychology-Zoology Graduate Training Program in Animal Behavior. Gottlieb helped to revive interest in the field of behavioral embryology by editing a volume by that name. His interest in the developmental basis of evolution resulted in the book, *Individual Development and*

Evolution. Gottlieb summarized his career-long research and theoretical efforts in *Synthesizing Nature-Nurture* (1997), which won the 1998 Eleanor Maccoby Award of the Developmental Psychology Division of the American Psychological Association. In 1999 Clark University Press published his monograph, *Probabilistic Epigenesis and Evolution*, which is based upon the Heinz Werner Lectures he gave there. Gottlieb has been a recipient of research grants from the National Institutes of Mental Health and from Child Health and Human Development, as well as from the National Science Foundation. He is Past President of the International Society for Developmental Psychobiology, and he is a recipient of the Distinguished Scientific Contributions to Child Development Award from the Society for Research in Child Development.


Barba Patton

Barba Patton is a leading expert on education. She received her Ed.D. from the University of Houston and is currently a faculty member at the University of Houston-Victoria, where she is Director of the Center for Excellence. Patton presents her views on education each year at national, regional, and local

conferences on child development, mathematics, and learning. She has extensively reviewed articles for journals and manuscripts for books. Patton enjoys teaching and the interaction it involves with students. She actively assists teachers in classrooms with students who have learning problems, especially in the area of mathematics and science. She is currently conducting research on dyscalculia.


Bert Hayslip, Jr.

Bert Hayslip, Jr. is a leading expert on death and grieving. He obtained his doctorate in experimental developmental psychology from the University of Akron. He was a faculty member at Hood College and currently is Regents Professor of Psychology at the University of North Texas. Hayslip is a Fellow of the American Psychological Association, the Gerontological Society of America, and the Association for Gerontology in

Higher Education. He has held research grants from the National Institute of Aging and other agencies. Hayslip is currently editor of *The*

International Journal of Aging and Human Development and associate editor of *Experimental Aging Research*. His research focuses on cognitive processes in aging, interventions to enhance cognitive functioning in later life, personality-ability linkages in older adults, grandparents who raise their grandchildren, grief and bereavement, hospice care, death anxiety, and mental health and aging. He is the co-author of *Hospice Care; Psychology and Aging: An Annotated Bibliography; Grandparents Raising Grandchildren; Adult Development and Aging*, third edition; *Working with Custodial Grandparents*; and *Historical Shifts in Attitudes Toward Death, Dying, and Bereavement*.

TO THE STUDENT

This book provides you with important study tools to help you more effectively learn about life-span development. Especially important is the learning goals system that is integrated throughout each chapter. In the visual walk-through of features, pay special attention to how the learning goals system works.

The Learning Goals System

Using the learning goals system will help you to learn more material more easily. Key aspects of the learning goals system are the learning goals, chapter maps, Review and Reflect, and Reach Your Learning Goals sections, which are all linked together.

At the beginning of each chapter, you will see a page that includes both a chapter outline and three to six learning goals that preview the chapter’s main themes and underscore the most important ideas in the chapter. Then, at the beginning of

each major section of a chapter, you will see a mini-chapter map that provides you with a visual organization of the key topics you are about to read in the section. At the end of each section is Review and Reflect, in which the learning goal for the section is restated, a series of review questions related to the mini-chapter map are asked, and a question that encourages you to think critically about a topic related to the section appears. At the end of the chapter, you will come to a section titled Reach Your Learning Goals. This includes an overall chapter map that visually organizes all of the main headings, a re-statement of the chapter’s learning goals, and a summary of the chapter’s content that is directly linked to the chapter outline at the beginning of the chapter and the questions asked in the Review part of Review and Reflect within the chapter. The summary essentially answers the questions asked in the within-chapter Review sections.

A visual presentation of the learning goals system is provided on this and the following pages.

Chapter Opening Outline and Learning Goals

The outline shows the organization of topics by headings. Primary topic headings are printed in blue capital letters. The Learning Goals highlight the main ideas in the chapter by section.

CHAPTER

4

*There was a star danced,
and under that I was born.*

—WILLIAM SHAKESPEARE
English Playwright, 17th Century

Prenatal Development and Birth

Chapter Outline	Learning Goals
<p>PRENATAL DEVELOPMENT</p> <p>The Course of Prenatal Development Teratology and Hazards to Prenatal Development Prenatal Care Cultural Beliefs About Pregnancy Positive Prenatal Development</p>	<p>1 Describe prenatal development</p>
<p>BIRTH</p> <p>The Birth Process Low-Birthweight Infants Measures of Neonatal Health and Responsiveness</p>	<p>2 Discuss the birth process</p>
<p>THE POSTPARTUM PERIOD</p> <p>What is the Postpartum Period? Physical Adjustments Emotional and Psychological Adjustments Bonding</p>	<p>3 Explain the changes that take place in the postpartum period</p>