

E L E V E N T H E D I T I O N

Human Development

DIANE E. PAPALIA SALLY WENDKOS OLDS RUTH DUSKIN FELDMAN



Human Development

Eleventh Edition

Diane E. Papalia
Sally Wendkos Olds
Ruth Duskin Feldman



Higher Education

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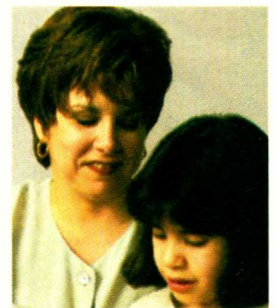
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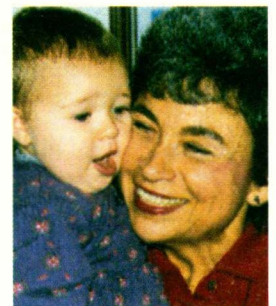


About the Authors

As a professor, **Diane E. Papalia** taught thousands of undergraduates at the University of Wisconsin–Madison. She received her bachelor's degree in psychology from Vassar College and both her master's degree in child development and family relations and her Ph.D. in life-span developmental psychology from West Virginia University. She has published numerous articles in such professional journals as *Human Development*, *International Journal of Aging and Human Development*, *Sex Roles*, *Journal of Experimental Child Psychology*, and *Journal of Gerontology*. Most of these papers have dealt with her major research focus, cognitive development from childhood through old age. She is especially interested in intelligence in old age and factors that contribute to the maintenance of intellectual functioning in late adulthood. She is a Fellow in the Gerontological Society of America. She is the coauthor of *A Child's World*, now in its eleventh edition, with Sally Wendkos Olds and Ruth Duskin Feldman; of *Adult Development and Aging*, now in its third edition, with Harvey L. Sterns, Ruth Duskin Feldman, and Cameron J. Camp; of *Psychology* with Sally Wendkos Olds; and of *Child Development: A Topical Approach* with Dana Gross and Ruth Duskin Feldman.



Sally Wendkos Olds is an award-winning professional writer who has written more than 200 articles in leading magazines and is the author or coauthor of seven books addressed to general readers, in addition to the three textbooks she has coauthored with Diane E. Papalia, two of them with Ruth Duskin Feldman. Her newest book, *Super Granny: Cool Projects, Activities, and Other Great Stuff to Do with Your Grandkids*, is addressed to contemporary grandmothers. She is currently revising her classic guide *The Complete Book of Breastfeeding* for its fourth edition. She is also the author of *A Balcony in Nepal: Glimpses of a Himalayan Village*, *The Working Parents' Survival Guide*, and *The Eternal Garden: Seasons of Our Sexuality*, and the coauthor of *Raising a Hyperactive Child* (winner of the Family Service Association of America National Media Award) and *Helping Your Child Find Values to Live By*. She has spoken widely on the topics of her books and articles to both professional and lay audiences, in person and on television and radio. She received her bachelor's degree from the University of Pennsylvania, where she majored in English literature and minored in psychology. She was elected to Phi Beta Kappa and was graduated summa cum laude.



Ruth Duskin Feldman is an award-winning writer and educator. With Diane E. Papalia and Sally Wendkos Olds, she has coauthored four editions of *A Child's World* and six editions of *Human Development*, including this one. She also is coauthor of *Adult Development and Aging* and of *Child Development: A Topical Approach*. A former teacher, she has developed educational materials for all levels from elementary school through college and has prepared ancillaries to accompany the Papalia-Olds books. She is author or coauthor of four books addressed to general readers, including *Whatever Happened to the Quiz Kids? Perils and Profits of Growing Up Gifted*, republished in 2000 as an Authors Guild Back-in-Print edition of iUniverse. She has written for numerous newspapers and magazines and has lectured extensively and made national and local media appearances throughout the United States on education and gifted children. She received her bachelor's degree from Northwestern University, where she was graduated with highest distinction and was elected to Phi Beta Kappa.



To our husbands,

David Mark Olds and Gilbert Feldman,
loving partners in growth and development.

And to Diane's best friend,

the late Jeffrey L. Claflin,
who was a constant source of companionship,
comfort, and fun.

And to our grown children,

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Nancy, Jennifer, and Dorri,
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who have taught us much about
child and adult development.

Preface

Human development is a journey. From the moment of conception, human beings set out on a course of new experiences that will continue throughout their lifetime. Though each journey is unique, there are familiar landmarks: Babies grow into children, who grow into adults. The study of human development sheds light on both the unique and the shared experiences along this journey through life.

OUR AIMS FOR THIS EDITION

This most recent edition of *Human Development* represents a painstaking effort to substantially streamline the text. We know what a challenge it is to cover the depth and breadth of human development in a single term and have worked hard to provide a text that is comprehensive yet concise. In this eleventh edition, therefore, our primary aim was to **significantly shorten the text** while providing the most current information available and maintaining the engaging tone and accessible style that have been the hallmarks of this book. As always, we seek to emphasize the continuity of development and its contrasts across cultures, to highlight interrelationships among the physical, cognitive, and psychosocial domains, and to integrate theoretical, research-related, and practical concerns.

Cutting-Edge Research

We have sifted through the plethora of literature published each year to select cutting-edge theory and research that will add significantly to students' understanding. We have broadened the research base of each chapter and have added recent references throughout, as well as the most current statistics available.

An important theme of the eleventh edition is an enhanced emphasis on **evolutionary theory** as it affects the study of child development. Beginning with expanded material in Chapter 2, several chapters discuss evolutionary interpretations of topics ranging from early cognitive abilities (Chapter 5) to gender (Chapter 8).

With the growing importance of cognitive neuroscience, we now present sections on **brain development** in early and middle childhood (Chapters 7 and 9) as well as in the fetus and infant (Chapter 4) and the adolescent (Chapter 11). We include various studies throughout the text that shed light on the role of the brain in cognition and emotions. Also new to this edition are the concept of **epigenesis** (Chapter 3) and extended discussions of Esther Thelen's **dynamic systems theory** of infant development (Chapters 4 and 5). Another important change is a greatly expanded discussion of **emerging adulthood** (Chapters 13 and 14). In addition, we have added new sections on **mental health** to Chapters 13

and 15 and have significantly updated our treatment of **Alzheimer's disease** in Chapter 17.

Content Changes

Following is a chapter-by-chapter list of topics that are new to this edition or have been substantially revised and/or updated.

Chapter 1: Domains of development and Baltes' life-span approach

Chapter 2: The concept of reciprocal determinism, evolutionary theory, and longitudinal research

Chapter 3: Multiple births, sex determination, epigenesis, genetic/chromosomal abnormalities, environmental prenatal hazards, prenatal care, preconception care, and signs and symptoms of pregnancy

Chapter 4: How childbirth has changed, medicated/unmedicated delivery, low birthweight, postmaturity, stillbirth, SIDS, immunization, nutritional issues, benefits of breastfeeding, brain development, birth complications, Thelen's dynamic systems theory, and autism

Chapter 5: Infant imitative abilities, dynamic systems theory, interpretation of infant object search, symbolic development, pictorial competence, categorization, gestures, language and brain development, and evolutionary interpretation of infant memory ability

Chapter 6: Three temperamental types, Kagan's research on shyness, gender, long-term effects of attachment patterns, early child care, maltreatment, and postpartum depression

Chapter 7: Healthy eating and sleeping habits, brain development, sleep disturbances, artistic development, obesity, SES, ethnicity, homelessness, smoking, air pollution, pesticides and lead, memory, language delay, and private speech

Chapter 8: Play, evolutionary approach to gender roles, gender differences in play, aggression, sibling relations, and only children

Chapter 9: Brain development and IQ, stuttering, asthma, executive function, influence of race/ethnicity and SES on IQ, second language education, and ADHD

Chapter 10: Cultural factors and parenting practices, family structure, different family types, prejudice, bullying, and mental health

Chapter 11: Globalization of adolescence, brain development, eating disorders, drug abuse, depression, and dropouts

Chapter 12: Identity formation, sexual orientation, sexual behavior, HIV/AIDS, teen pregnancy, individuation and family conflict, family structure, antisocial behavior, and youth violence epidemic

Chapter 13: Health issues, mental health, sexual behavior, STDs, college experiences, and entering the world of work

Chapter 14: Recentering, failure to launch, adult friendships, gay relationships, fictive kin, marital relationships, becoming parents, and cohabitation.

Chapter 15: Menopause, osteoporosis, breast cancer, hormone therapy, retirement, and literacy

Chapter 16: Generativity, marriage and health, childlessness, aging parents, and caregiving

Chapter 17: Population statistics, life expectancy including racial and gender issues, caloric restriction effects, the aging brain, sexual functioning, and Alzheimer's disease

Chapter 18: Work and retirement trends, living arrangements, relationships, cohabitation, and mistreatment of the elderly

Chapter 19: Near death experiences, surviving a spouse, losing a child, suicide, and coping with loss

Cultural Influences

This edition continues our emphasis on cultural and historical influences on development. Reviewers have praised our focus on culture as a particular strength of this book. Cross-cultural research is fully integrated throughout the text as well as highlighted in Window on the World boxes, reflecting the diversity of the population in the United States and in other societies.



Pedagogical Features

We are gratified by the overwhelmingly favorable response to the pedagogy we have developed for *Human Development*, which includes the following features.

A new feature, Did You Know . . . , introduces each chapter by highlighting interesting and enlightening findings mentioned in the chapter.

Two types of boxes enhance the chapters by highlighting topics related to the main text. Each box contains a Check It Out section referring the student to relevant Internet links where further information can be found.

- *Research in Action* boxes provide an in-depth examination of research topics briefly mentioned in the text. Research in Action boxes include “The Autism ‘Epidemic’” (Chapter 4), “Does Play Have an Evolutionary Basis?” (Chapter 8), “Do Barbie Dolls Affect Girls’ Body Image?” (Chapter 9), “Intimate Partner Violence” (Chapter 14), and “Centenarians” (Chapter 17).

Did You Know . . .

- In some societies there is no concept of adolescence or middle age?
- Many scholars maintain that races are *not* physically distinguishable categories of people?
- Within the next 50 years, it has been estimated that about half the U.S. population will be Hispanic, black, or Asian?
- More than 36 million people in the United States live in poverty?
- According to some research, children who have been exposed to television and computers from an early age develop differently than children who grow up without them?
- Memory, strength, and endurance can be improved with training and practice, even in late life?

These are just a few of the interesting and important topics we will cover in this chapter as you begin your study of human development. In this introductory chapter, we describe how the field of human development has itself developed. We present the goals and basic concepts of the field today. We identify aspects of human development and show how they interrelate. Next, we summarize major developments during each period of life. Finally, we look at influences on development and the contexts in which it occurs.



BOX 9-1 Research in Action

Do Barbie Dolls Affect Girls' Body Image?

"I looked at a Barbie doll when I was 6 and said, 'This is what I want to look like,'" the model Cindy Jackson said on CBS News (2004). "I think a lot of little 6-year-old girls or younger even now are looking at that doll and thinking, 'I want to be her.'" It took 31 operations, 14 years, and \$100,000, but Jackson's obsession with Barbie got her a new look and an entry in the *Guinness Book of World Records*.

Barbie is the best-selling fashion doll around the world. In the United States, 99 percent of 3- to 10-year-old girls own at least one Barbie doll, and the average girl owns eight. Though she is sold as "every girl," Barbie is far from average. Her body proportions are "unrealistic, unattainable, and unhealthy" (Dittmar, Halliwell, & Ive, 2006, p. 284). "If she were alive, Barbie would be a woman standing 7 feet tall with a waistline of 18 inches and a bust-line of 38 to 40 inches," writes the psychotherapist Abigail Natenshon (2006), a specialist in eating disorders. In fact, Barbie's waist, as compared to her bust size, is 39 percent smaller than that of a woman with the eating disorder anorexia (see Chapter 11). Fewer than 1 in 100,000 women actually have Barbie's body proportions.

According to Bandura's social-cognitive theory, Barbie dolls are role models for young girls, transmitting a cultural ideal of beauty. The media reinforce this ideal. Girls who do not measure up may experience *body dissatisfaction*—negative thoughts about their bodies, leading to low self-esteem. By age 6, studies show, many girls wish to be thinner than they are.

To test Barbie's effect on young girls' body image, researchers read picture books to English girls, ages 5½ to 8½. One group saw picture stories about Barbie; control groups saw stories about a full-figured fashion doll called Emme or about no doll (Dittmar et al., 2006). Afterward, the girls completed questionnaires in which they were asked to agree or disagree with such statements as "I'm pretty happy about the way I look" and "I really like what I weigh."

The findings were striking. Among the youngest girls (ages 5½ to 6½), a single exposure to the Barbie picture book significantly lowered body esteem and increased the discrepancy between actual and ideal body size. This did not happen with the girls in the two control groups. The effect of Barbie on body image was even stronger in 6½- to 7½-year-olds. However, the findings for the oldest group, ages 7½ to 8½, were completely different: Pictures of Barbie had no direct effect on body image at this age.

What accounts for this difference? Girls up to age 7 may be in a sensitive period in which they acquire idealized images of beauty. As girls grow older, they may internalize the ideal of thinness as part of their emerging identity. Once the ideal is internalized, its power no longer depends on direct exposure to the original role model (Dittmar et al., 2006).

Or, it may be that girls simply outgrow Barbie. In another study (Kutner & McDonald, 2004), sixth- through eighth-grade girls were asked about their childhood experiences with Barbie. All the girls had owned at least two Barbie dolls but said they no longer played with them. Looking back, some of the girls saw Barbie as a positive influence: "She is like the perfect person . . . that everyone wants to be like." But most of the girls saw Barbie as an unrealistic role model: "Barbie dolls provide a false stereotype . . . as it is physically impossible to attain the same body size. . . . There wouldn't be enough room for organs and other necessary things. . . . Barbie has this perfect body and now every girl is trying to have her body because they are so unhappy with themselves."

Barbie now has a major competitor: Bratz, an ultrathin doll with a large round face, sassy mouth, and heavy makeup. Longitudinal research will help determine whether fashion dolls such as Barbie and Bratz have a lasting impact on body image.

What's Your View?

If you had (or have) a young daughter, would you allow her to play with Barbie or Bratz dolls? Why or why not?

Check It Out

For more information on this topic, go to www.bam.gov/teachers/body_image_dolls.html. This site describes a classroom activity in which students take measurements of toy action figures and fashion dolls and figure out how they would look if they were the height of a normal adult man or woman.

- *Window on the World* boxes explore the way an issue in the chapter is treated or experienced in one or more foreign cultures, or in a United States minority group. Window on the World boxes include "Surviving the First Five Years of Life" (Chapter 7), "The Globalization of Adolescence" (Chapter 11), and "Cultural Differences in Women's Experience of Menopause" (Chapter 15).



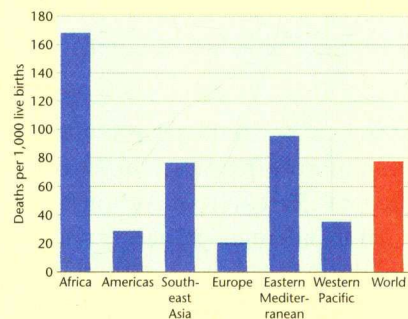
BOX 7-1 Window on the World

Surviving the First Five Years of Life

The chances of a child's living to his or her fifth birthday have doubled during the past four decades, but prospects for survival depend to a great extent on where the child lives. Worldwide, more than 17 million children under 5 died in 1970. In 2007, the number of deaths in this age group dropped below 10 million for the first time in modern history (Bryce et al., 2005; UNICEF Press Centre, 2007; WHO, 2003)—but this is still far too many, and the gains have not benefited all children equally.

International efforts to improve child health focus on the first five years because nearly 9 out of 10 deaths of children under age 15 occur during those years. Fully 98 percent of child deaths occur in poor, rural regions of developing countries; 42 percent of these deaths occur in sub-Saharan Africa and 29 percent in Southeast Asia (Bryce et al., 2005; WHO, 2003; see figure). A baby born in Sierra Leone on Africa's west coast is three and a half times more likely to die before age 5 than a child born in India and more than 100 times more likely to die than a child born in Iceland, which has the world's lowest child mortality rate (WHO, 2003).

Worldwide, four major causes of death, accounting for 54 percent of deaths in children younger than 5, are communicable



Comparative child mortality in six regions of the world, 2002.

(Source: WHO, 2003.)

Our comprehensive learning system is a unique, coordinated set of elements that work together to foster active learning. The names of the pedagogical features—Guideposts, Checkpoints, and What's Your View? (critical thinking questions)—are designed to reinforce our central theme of a journey through life.

- **Guideposts for Study:** This list of questions at the beginning of each chapter highlights the key concepts to learn. Each Guidepost appears again to introduce the related text section.
- **Checkpoints:** These questions, in the margins throughout each chapter, help students assess how well they grasp the concepts in the preceding text sections.
- **What's Your View?** These critical thinking questions, in the margins throughout each chapter and in the boxes, encourage students to examine their thoughts about a topic or to apply the information presented in the text.
- **Summary and Key Terms:** Concluding each chapter, these resources, organized under each Guidepost and including key terms, guide students as they review the chapter and check their learning.



Guideposts for Study

1. How does conception normally occur, and what causes multiple births?
2. How does heredity operate in determining sex and transmitting normal and abnormal traits?
3. How do scientists study the relative influences of heredity and environment, and how do heredity and environment work together?
4. What roles do heredity and environment play in physical health, intelligence, and personality?

Summary and Key Terms

Basic Theoretical Issues

Guidepost 1: What purposes do theories serve, and what are two basic theoretical issues on which developmental scientists differ?

- A theory is used to organize and explain data and generate hypotheses that can be tested by research.
 - Developmental theories differ on two basic issues: the active or reactive character of development and the existence of continuity or discontinuity in development.
 - Two contrasting models of human development are the mechanistic model and the organismic model.
- theory (22)
hypotheses (22)
mechanistic model (23)

stage theory, Vygotsky's sociocultural theory, and the information-processing approach. Neo-Piagetian theorists blend Piagetian principles with insights gained from information-processing research.

cognitive perspective (30)
cognitive-stage theory (31)
organization (31)
schemes (31)
adaptation (31)
assimilation (31)
accommodation (31)
equilibration (31)
sociocultural theory (32)
zone of proximal development (ZPD) (32)

Supplementary Materials

Human Development, eleventh edition, is accompanied by a complete learning and teaching package. Each component of this package has been thoroughly revised and expanded to include important new course material.

For the Student

Online Learning Center for Students The official website for the text (www.mhhe.com/papaliahd11e) provides students with access to a variety of learning tools, including chapter outlines, key terms flashcards, student self-quizzes, web links to relevant psychology sites, and video segments available through McGraw-Hill's exclusive Discovery Channel licensing arrangement, chosen to illustrate key concepts in human development.

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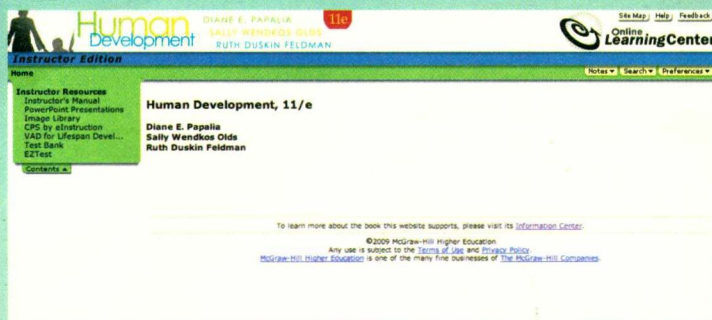
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LearningCenter

Student Edition
Instructor Edition

Student Study Guide Peggy Skinner, South Plains College

This comprehensive study guide (ISBN 0077234936) is organized by chapter and integrates the Guideposts for Study found in the main text. It is designed to help students make the most of their time when reviewing the material in the text and when studying for exams. The study guide includes a variety of self-tests, including true/false, multiple-choice, and essay questions.



For the Instructor

Online Learning Center for Instructors The password-protected instructor side of the Online Learning Center (www.mhhe.com/papaliahd11e) contains the Instructor's Manual, Test Bank, PowerPoint slides, CPS Questions, Image Gallery, and other valuable material to help you design and enhance your course. See more information about specific assets below. Ask your local McGraw-Hill representative for password information.

- **Instructor's Manual**, authored by Tammy Lochridge, Itawamba Community College. Designed specifically for the eleventh edition, this manual contains valuable resources for both new and experienced teachers. Organized around the Guideposts for Study in the textbook, the Instructor's Manual offers Total Teaching Package outlines, suggested lecture openers, critical thinking exercises, essay questions, ideas for independent study, video and multimedia resources, suggested readings, and web resources for each chapter.
- **Test Bank**, authored by Ann Mullis, Florida State University. This comprehensive test bank offers more than 2,000 multiple-choice and essay questions. Organized by chapter, the questions are designed to test factual, applied, and conceptual understanding. Consistent with the integrative nature of our supplements package, all test bank questions are keyed to the Guideposts for Study in the text, and are compatible with EZ Test, McGraw-Hill's computerized test bank program.

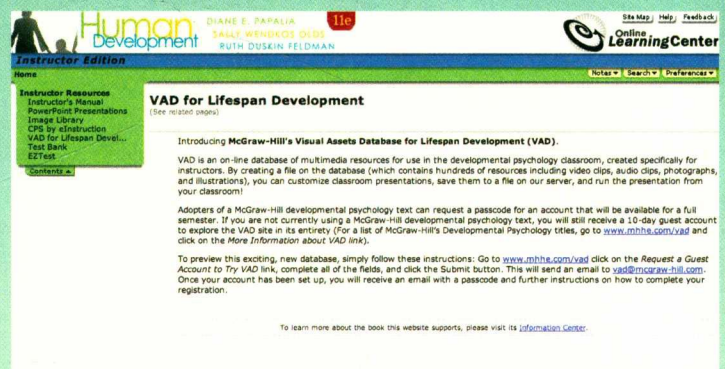
McGraw-Hill's EZ Test is a flexible and easy-to-use electronic testing program that allows instructors to create tests from book-specific items. It accommodates a wide range of question types, and allows instructors to edit existing questions or create new ones. Multiple versions of the test can be created, and any test can be exported for use with course management systems such as WebCT or Blackboard. EZ Test Online is a new service that gives you a place to easily administer your EZ Test-created exams and quizzes online. The program is available for Windows and Macintosh environments.

- **PowerPoint Slides**, authored by Wanda Clark, South Plains College. These presentations cover the key points of each chapter and include charts and graphs from the text. They can be used as is, or you may modify them to meet your specific needs.
- **Classroom Performance System (CPS) by eInstruction**. These questions, formatted for use with the interactive Classroom Performance System, are organized by chapter and designed to test factual, applied, and conceptual

understanding. These test questions are also compatible with EZTest, McGraw-Hill's computerized test bank program.

- **Image Gallery.** These files include all of the figures, tables, and photos from this textbook (more than 150 images in all) for which McGraw-Hill holds copyright.

McGraw-Hill's Visual Asset Database for Lifespan Development (VAD) McGraw-Hill's Visual Assets Database for Lifespan Development (VAD 2.0) (www.mhhe.com/vad) is an online database of videos for use in the developmental psychology classroom, created specifically for instructors. You can customize classroom presentations by downloading the videos to your computer and showing the videos on their own or insert them into your course cartridge or PowerPoint presentations. All of the videos are available with or without captions. Ask your McGraw-Hill representative for access information.



Multimedia Courseware for Child Development *Charlotte J. Patterson, University of Virginia*

This video-based set of two CD-ROMs covers classic and contemporary experiments in child development. Respected researcher Charlotte J. Patterson selected the content and wrote accompanying modules that can be assigned to students. These modules include suggestions for additional projects as well as a testing component. Multimedia Courseware can be packaged with the text at a discount.

McGraw-Hill Contemporary Learning Series

- *Annual Editions: Human Development.* This reader is a collection of articles on topics related to the latest research and thinking in human development. Annual Editions are updated regularly and include useful features such as a topic guide, an annotated table of contents, unit overviews, and a topical index.
- *Taking Sides: Clashing Views on Controversial Issues in Life-Span Development.* Current controversial issues are presented in a debate-style format designed to stimulate student interest and develop critical thinking skills. Each issue is thoughtfully framed with an issue summary, an issue introduction, and a postscript.
- *Notable Selections in Human Development.* This book is a collection of 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 established the relevance of the article or study and provides biographical information on the author.

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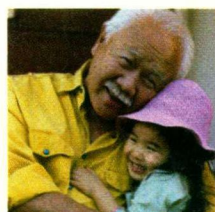
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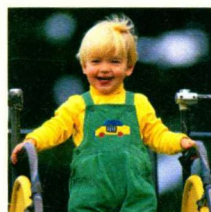
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