



# INFANTS, CHILDREN, AND ADOLESCENTS

— Laura E. Berk —

# *Infants, Children, and Adolescents*

**Laura E. Berk**

**Illinois State University**

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## *About the Author*

Laura E. Berk is professor of psychology at Illinois State University, where she has taught child development to undergraduate and graduate students for over twenty years. She received her bachelor's degree in psychology from the University of California, Berkeley, and her masters and doctoral degrees in early childhood development and education from the University of Chicago. She was visiting scholar at Cornell University in 1975–1976, at the University of California, Los Angeles, in 1982–1983, and at Stanford University in 1990–1991. She has published extensively on the effects of school environments on children's development and, more recently, on the development of children's private speech. Her research has been funded by the U.S. Office of Education and the National Institute of Child Health and Human Development. It has appeared in many prominent journals, including *Child Development*, *Developmental Psychology*, *Merrill-Palmer Quarterly*, *Child and Youth Care Quarterly*, and the *American Journal of Education*. Currently, she serves as research editor of *Young Children* and consulting editor of *Early Childhood Research Quarterly*, journals of the National Association for the Education of Young Children. She is author of the topically organized textbook, *Child Development*, published by Allyn and Bacon.

# Preface

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

My goal in writing this textbook is to provide a sound course of study while meeting the varied needs of students. I have provided a text that is comprehensive in its coverage of scientific knowledge and that portrays the complexities of child development in a way that captures student interest while helping them learn.

To achieve these objectives, I have grounded this book in a carefully selected body of classic and current research, which I bring to life with stories and vignettes about children and families, many of whom I have known personally. I have also used a clear, engaging writing style and included a unique pedagogical program that not only assists students in mastering information, but also stimulates them to think critically and apply what they have learned. Finally, the basic approach of this book has been shaped by my own professional and personal history as a teacher, researcher, and parent. It consists of five philosophical ingredients, which I regard as essential for students to emerge from a course with a thorough understanding of child development. I have woven each into every chapter:

- 1. An understanding of major theories and the strengths and shortcomings of each.** I begin the first chapter by emphasizing that only knowledge of multiple theories can do justice to the richness of child development. As I take up each age sector and aspect of development, I present a variety of theoretical perspectives and show how research has been used to evaluate them. Discussion of contrasting theories also serves as the context for an evenhanded analysis of many controversial issues throughout the text.
- 2. Knowledge of both the sequence of child development and the processes that underlie it.** I provide students with a description of the organized sequence of development along with a discussion of processes of change. An understanding of *process*—how complex combinations of biological and environmental events produce development—has been the focus of most recent research. Accordingly, the text reflects this emphasis. But new information about the timetable of change has also emerged in recent years. In many ways, the child has proved to be a far more competent being than was believed to be the case in decades past. I give thorough attention to recent evi-

dence on the timing and sequence of development, along with its implications for process, throughout the book.

3. **An appreciation of the impact of context and culture on child development.** A wealth of new research indicates more powerfully than ever before that children live in rich physical and social contexts that affect all aspects of development. In each chapter, the student travels to distant parts of the world as I review a growing body of cross-cultural evidence. The text narrative also discusses many findings on socioeconomically and ethnically diverse children within the United States. Besides highlighting the role of immediate settings, such as family, neighborhood, and school, I make a concerted effort to underscore the impact of larger social structures—societal values, laws, and government programs—on children's well-being.
4. **A sense of the interdependency of all aspects of development—physical, cognitive, emotional, and social.** In every chapter, an integrated approach to child development is emphasized. I show how physical, cognitive, emotional, and social development are interwoven. In many instances, students are referred back to previous sections and chapters to deepen their understanding of relationships among various aspects of change.
5. **An appreciation of the interrelatedness of theory, research, and applications.** Throughout this book, I emphasize that theories of child development and the research stimulated by them provide the foundation for sound, effective practices with children. The link between theory, research, and applications is reinforced by an organizational format in which theory and research are presented first, followed by implications for practice. In addition, a new emphasis in the field—harnessing child development knowledge to shape social policies that support children's needs—is reflected in every chapter. The text addresses the current condition of children in the United States and around the world and shows how theory and research have sparked successful interventions. Many important applied topics are considered—prenatal AIDS infection, infant mortality, maternal employment and day care, mainstreaming children with learning difficulties, bilingual education, child sexual abuse, and teenage pregnancy and childbearing, to name just a few.

## TEXT ORGANIZATION

I have chosen a chronological organization for this text. The book begins with an introductory chapter that describes the history of the field, modern theories, and research strategies. It is followed by three chapters that cover the foundations of development. Chapter 2 combines an overview of genetic and environmental influences into a single, integrated discussion of these complex determinants of development. Chapter 3 is devoted to prenatal development, Chapter 4 to birth and the newborn baby. With this foundation, students are ready to take a close look at four major age periods of development: infancy and toddlerhood, early childhood, middle childhood, and adolescence. Each of these chronological divisions contains a trio of topical chapters: physical development, cognitive development, and emotional and social development.

The chronological approach has the unique advantage of enabling students to get to know children of a given age period very well. It also eases the task of integrating the various aspects of development, since each is discussed in close proximity. At the same time, a chronologically organized book requires that theories covering several age periods be presented piecemeal. This creates a challenge for students, who



must link the various parts together. To assist with this task, I remind students of important earlier achievements before discussing new developments. Also, chapters devoted to the same topic (for example, Cognitive Development in Early Childhood, Cognitive Development in Middle Childhood) are similarly organized, making it easier for students to draw connections across age periods and construct a continuous vision of developmental change.

## ***SPECIAL PEDAGOGICAL FEATURES***

In writing this book, I made a concerted effort to adopt a prose style that is lucid and engaging without being condescending. I frequently converse with students and encourage them to relate what they read to their own lives. In doing so, I hope to make the study of child development involving and pleasurable.

**Chapter Introductions and End-of-Chapter Summaries.** To provide students with a helpful preview of what they are about to read, I include an outline and overview of chapter content in each chapter introduction. Especially comprehensive end-of-chapter summaries, organized according to the major divisions of each chapter and highlighting key terms, remind students of key points in the text discussion.

**Brief Reviews.** Brief Reviews, which provide students with interim summaries of text content, appear at the end of major sections in each chapter. They enhance retention by encouraging students to reflect on information they have just read before moving on to a new section.

**Stories and Vignettes about Children.** To help students construct a clear image of development and to enliven the text narrative, each chronological age division is unified by case examples extending throughout the trio of chapters. For example, within the infancy and toddlerhood section, students accompany me as I sit in on periodic gatherings of three mothers and their babies, observe dramatic changes in the children's capabilities, and address their mothers' questions and concerns. Besides a set of main characters who bring unity to each age period, many additional vignettes offer vivid examples of development and diversity among children.

**Boxes.** Three types of boxes accentuate philosophical themes of this book. *Cultural Influences* boxes highlight the impact of context and culture on all aspects of development. *Social Issues* boxes discuss the condition of children in the United States and around the world and emphasize the need for sensitive social policies to ensure their well-being. *From Research to Practice* boxes integrate theory, research, and applications.

**Learning Activities.** Throughout the text narrative and within the Social Issues boxes, I encourage students to become actively involved with the material by suggesting activities that extend their understanding of child development. For example, in Chapter 1, I recommend that students keep a notebook in which they evaluate their theoretical preferences in light of research. In many places, I suggest that they observe or interview children and parents and reflect on their own experiences. Each learning activity can serve as a stimulus for class discussion or as a course assignment.

**Critical Thinking Questions.** Active engagement with the subject matter is also supported by critical thinking questions, which can be found in the margins at the end of major sections. The focus of these questions is divided between theory and applications. Many describe problematic situations faced by parents, teachers, and children and ask students to resolve them in light of what they have learned. In this way, the questions inspire high-level thinking and new insights.

**Marginal Glossary, End-of-Chapter Term List, and End-of-Book Glossary.** Mastery of terms that make up the central vocabulary of the field is promoted through

a marginal glossary, an end-of-chapter term list, and an end-of-book glossary. Important terms and concepts also appear in boldface type in the text narrative.

**Concept Tables.** I have created a special series of tables that group together related concepts, summarize the important point conveyed by each, and provide vivid examples. These tables help ensure that challenging sets of concepts will be interrelated and fully understood.

**Milestone Tables.** A milestone table appears at the end of each chronological age division of the text. These tables summarize major physical, cognitive, language, and emotional and social developments of each age span.

**Additional Tables, Illustrations, and Photographs.** Additional tables are liberally included to help students grasp essential points in the text discussion, extend information on a topic, and consider applications. The many full-color illustrations throughout the book depict important theories, methods, and research findings. Photos have been carefully selected to portray the text discussion and to represent the diversity of children in the United States and around the world.

**For Further Information and Special Help.** Students in my own classes frequently ask where they can go to find out more about high-interest topics or to seek help in areas related to their own lives. To meet this need, I have included an annotated section at the end of each chapter that provides the names, addresses, and phone numbers of organizations that disseminate information about child development and offer special services.

## TEXT SUPPLEMENTS

A set of carefully prepared supplements accompanies this text. Its components support both high-quality teaching and effective student learning.

**Instructor's Annotated Edition.** The Instructor's Annotated Edition (IAE) is designed to facilitate class discussion and enhance student mastery of the subject matter. Its elements appear in the margins in blue print. Learning Objectives and corresponding Test Bank item numbers are printed next to major headings. Learning Activities are highlighted throughout the book. Video and laserdisc selections (see subsequent section) are listed near related text discussions.

**Instructor's Resource Manual.** Supplementing the Instructor's Annotated Edition is a separate Instructor's Resource Manual, prepared by Malia Huchendorf of Normandale Community College. Among its many features are learning objectives, chapter outlines, chapter summaries, lecture topics and tips, classroom activities and demonstrations, connections tables that cross-reference high-interest topics discussed in several sections of the book, responses to critical thinking questions, a guide to the video and laserdisc that complement the book, additional film and media suggestions, and transparency masters.

**Test Bank.** The Test Bank, written by Christine Sartoris of Illinois State University and Carole Kremer of Hudson Valley Community College, contains over 1,600 multiple choice items. Questions are cross-referenced to Learning Objectives. For instructors who do not have enough time to choose their own test questions, pre-made tests of 25 items each are included. Answer justifications, which provide students with explanations of correct responses, can be found at the end of the Test Bank. It comes in both printed and computerized formats (Macintosh and IBM versions are available.)

**Video and Laserdisc.** Allyn and Bacon, in cooperation with Films for the Humanities and Sciences, has produced a video and laserdisc to accompany the text. Segments average five minutes in length and are intended to launch or otherwise



enhance lectures and class discussions. A Video User's Guide, which ties the film segments to the text narrative, can be found in the Instructor's Resource Manual.

**Study Guide.** I have written the Study Guide, which provides students with a comprehensive review of text content. Each chapter begins with a short summary and a list of learning objectives. These are followed by a variety of study questions, including true/false, fill-in-the-blank, matching, and short-answer essay, organized according to major headings in the text narrative. Critical thinking questions that appear in the margins of the book are reprinted in the Study Guide along with text page numbers to which students can refer as they formulate answers. Crossword puzzles assist with mastery of the vocabulary of the field. Self-tests, consisting of multiple choice, fill-in-the-blank, and true-false items, help students evaluate how well they have learned the material. Finally, each Study Guide chapter includes a list of annotated suggested readings, carefully selected to build on chapter content and to be accessible to students who are new to the field of child development.

## ACKNOWLEDGMENTS

The dedicated contributions of a great many individuals helped make this book a reality. In the months before I began writing, Allyn and Bacon sponsored focus groups in which instructors of child development discussed features of a text that would best meet their teaching goals. The insightful comments of group members were critical in shaping the organization and content of this book. I thank each of the following individuals for participating.

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I have been especially fortunate to work with an outstanding publishing staff at Allyn and Bacon. John-Paul Lenney first encouraged me to write this book, and Diane McOscar guided it through its initial phases. Susan Badger, Editor in Chief, monitored the project from beginning to end and offered many creative suggestions as the text took shape. Since November of 1991, it has been my privilege and pleasure to work with Laura Pearson, Senior Editor. Her sound judgment, insight into the needs of instructors and students, and keen aesthetic sense are reflected on every page. Laura's generous moral support and warm sense of humor are also much appreciated, and I look forward to working with her for many years to come.

Anne Reid, developmental editor, worked closely with me over several months to ensure that every line and paragraph of this book would be clear, every thought and concept precisely expressed and well developed. She also planned the excellent photo program that so aptly illustrates points in the text discussion. Annie brought great wisdom and diligence to these tasks, and the book is immeasurably better because of her involvement.

The completion of this text offered me another opportunity to work with the production staffs at Allyn and Bacon and York Production Services. Both orchestrated the production of my topical child development text, and once again they have transformed my typescript copy into an elegant, finished book. Elsa Peterson conducted the photo research, obtaining outstanding photographs of ethnically diverse children and families. She also worked closely with the Oslo Museum of Chil-

dren's Art in selecting drawings and paintings that not only reflect each chapter's content, but accentuate the beauty and wonderment of childhood. I thank Marnie Greenhut, Editorial Assistant, for coordinating the preparation of text supplements and attending to a wide variety of pressing, last-minute details.

A final word of gratitude goes to my husband, Ken, and my sons, David and Peter, both of whom have nearly completed the journey described in this book and stand on the threshold of adulthood. I have learned much from Ken, David, and Peter about parenting and child development, and they have graciously permitted me to share some of these insights in the text's vignettes. I dedicate this book, with love, to them.

Laura E. Berk

# About the Art

The sixteen works of art that serve as chapter openings come from the International Museum of Children's Art in Oslo, Norway. Founded in 1986, the museum houses 100,000 drawings, paintings, sculptures, and crafts by children from over 130 countries. The works selected provide a feast of imagination, feeling, and color as they express the fantasy, freedom, and creativity of childhood. Each piece has been carefully chosen to reflect the theme of the chapter in which it appears.

	Page
<b>1 "Adult Literacy," by Samsad Begum Shilpi, 14 years, Bangladesh</b>	xxxii
As adults in this literacy class learn to read the printed word, their own horizons and those of their children will expand. As you read Chapter 1, it will open the door to new ways of thinking about and studying children.	
<b>2 "A Happy Childhood," by Bianca Chiriloiu, 11 years, Romania</b>	48
This portrayal of a happy childhood suggests that the human capacity to play, dream, and create is the product of many forces. Chapter 2 will introduce you to the complex blend of genetic and environmental influences that mold each child's development.	
<b>3 "A Pregnant Mother Is Dancing," by Nadia, 12 years, Austria</b>	90
This painting captures the joy, anticipation, and wonder experienced by many expectant parents as they await the arrival of a new human being. In Chapter 3, you will learn about prenatal development and the wide variety of factors that support or undermine it.	
<b>4 "Mexican Mother," by Cyntia Arrieta Rodriguez, 11 years, Mexico</b>	124
This idyllic scene suggests a birth that went smoothly and an infant who has successfully made the transition to life outside the womb with the support of a loving parent. Chapter 4 explores the birth process and the marvelous competencies of newborn babies.	
<b>5 "Mother and Child," by Sumedha Patale Pleris, 9 years, Sri Lanka</b>	162
Nourished by her mother's breast and the attentions of family members, this baby grows quickly, starts to move about on her own, and makes sense of complicated sights and sounds. Chapter 5 traces these awesome achievements.	
<b>6 "Mother and Child," by Camilla Bergli, 6 years, Norway</b>	202
This young child's wide-eyed expression reflects her strong drive to explore and understand the world. In Chapter 6, you will see that a stimulating environment combined with the guidance of a sensitive parent helps ensure that early cognition will develop at its best.	
<b>7 "My Big Brother," by Dai Akiyama, 4 years, Japan</b>	240
This small child's vision of himself and his gigantic older brother captures the rapid development of emotions, social skills, and self-awareness during infancy	

and toddlerhood. The importance of early family relationships is a major theme of Chapter 7.

- 8 “Giriam Children Pounding Millet,” by Suril P. Patel, 11 years, Kenya 278**  
 A transformed body and explosion of new motor skills contribute to the playful activities and peer relationships depicted in this painting. Chapter 8 highlights the close link between early childhood physical growth and other aspects of development.
- 9 “The Young Artist,” by Li Cheng, 11 years, Taiwan 308**  
 This image of an exuberant young painter portrays the most striking cognitive achievement of early childhood. As Chapter 9 reveals, mental representation takes a giant leap forward.
- 10 No title, by Anne Marie, 15 years, Seychelles 348**  
 This peaceful scene reflects the increasingly social play and first friendships of early childhood. As its broad horizon suggests, the child’s emotional and social world is rapidly expanding.
- 11 “Skiing,” by Jiang Yen, 10 years, China 388**  
 These skiers dash adeptly down the mountainside, a pastime that illustrates the gains in athletic skill of middle childhood. As you will see in Chapter 11, representation of depth in this spirited drawing is a hallmark of the school years as well.
- 12 “Birdwatching,” by S. Bapu Bhiva, 12 years, India 414**  
 These keen observers of wildlife notice more features of birds, classify them more effectively, and recall them more easily than they did as younger children. Chapter 12 shows that middle childhood is accompanied by an improved ability to think about concrete objects and events in the surrounding environment.
- 13 “Fishing,” by Tang Chong Min, 9 years, Singapore 456**  
 These industrious fishermen display the energetic pursuit of culturally meaningful activities and the cooperative peer relations typical of middle childhood.
- 14 No title, by Noemi, 14 years, Argentina 496**  
 This teenage girl’s self-conscious pose suggests that she might be wondering, “Is my body attractive? Will others accept me?” As Chapter 14 indicates, adjusting to rapid pubertal changes and the many expectations that accompany them are challenging tasks for adolescents.
- 15 “Disaster,” by Kowit Wallanarat, 13 years, Thailand 534**  
 During adolescence, cognition moves beyond the real to the possible. This 13-year-old’s fantastic vision of a catastrophic event is a product of new abstract reasoning powers discussed in Chapter 15.
- 16 “Love Is Now Impossible,” by Greta Dealessi, 10 years, Italy 568**  
 As adolescents search for a set of values to have faith in, they bring a sense of idealism and hopefulness to society. Yet, as the drawing of this young artist conveys, their dreams can easily be shattered by a world in which neglect and destruction are permitted to triumph over human caring and love.

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