

*Third Edition*

# INFANTS, CHILDREN, — AND — ADOLESCENTS



LAURA E. BERK

# INFANTS, CHILDREN, AND ADOLESCENTS

THIRD EDITION

 LAURA E. BERK

ILLINOIS STATE UNIVERSITY

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TO MY HUSBAND, KEN,  
AND MY SONS, DAVID AND PETER,  
WITH LOVE

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## ABOUT THE AUTHOR

Laura E. Berk is a distinguished professor of psychology at Illinois State University, where she teaches child development to both undergraduate and graduate students. 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 has been a visiting scholar at Cornell University, UCLA, Stanford University, and the University of South Australia. Berk has published widely on the effects of school environments on children's development and, more recently, on the development of 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*, *Journal of Abnormal Child Psychology*, and *Development and Psychopathology*. Her empirical studies have attracted the attention of the general public, leading to contributions to *Psychology Today* and *Scientific American*. Berk has served as research editor of *Young Children* and is currently consulting editor of *Early Childhood Research Quarterly*. She is author of the chapter on the extracurriculum of schooling for the American Educational Research Association's *Handbook of Research on Curriculum*. Her books include *Private Speech: From Social Interaction to Self-Regulation*, *Scaffolding Children's Learning: Vygotsky and Early Childhood Education*, and *Landscapes of Development, An Anthology of Readings*. In addition to *Infants, Children, and Adolescents*, she is author of the best-selling texts *Child Development* and *Development Through the Lifespan*, published by Allyn and Bacon.



## PREFACE FOR INSTRUCTORS

My decision to write *Infants, Children, and Adolescents* was inspired by a wealth of professional and personal experiences. First and foremost were the interests and needs of hundreds of students of child development with whom I have worked in twenty-eight years of college teaching. I aimed for a text that is intellectually stimulating, that provides depth as well as breadth of coverage, that portrays the complexities of child development with clarity and excitement, and that is relevant and useful in building a bridge from theory and research to children's everyday lives. Instructor and student enthusiasm for the book not only has been among my greatest sources of pride and satisfaction, but also has inspired me to rethink and improve each edition.

This third edition includes a great many changes that represent several major trends in the field:

- *Inclusion of interdisciplinary research is expanded.* The contemporary move toward viewing the child's thoughts, feelings, and behavior as an integrated whole, affected by a wide array of influences in biology, social context, and culture, has motivated developmental researchers to strengthen their links with other fields of psychology and other disciplines. Topics and findings included in the text increasingly reflect the contributions of educational psychology, social psychology, health psychology, clinical psychology, neuropsychology, biology, pediatrics, sociology, anthropology, and other fields.
- *Diverse pathways of change are highlighted.* Investigators have reached broad consensus that variations in biological makeup, everyday tasks, and the people who support children in mastery of those tasks lead to wide individual differences in children's skills. This edition pays more attention to variability in development and recent theories, including ecological, sociocultural, and dynamic systems, that attempt to explain it.
- *The interconnected roles of biology and environment are given greater emphasis.* Accumulating evidence on development of the brain, motor skills, cognitive competencies, temperament, and developmental problems underscores the way biological factors emerge in, are

modified by, and share power with experience. The interconnection between biology and environment is revisited throughout the text narrative and in a new Biology and Environment feature.

- *The link between theory, research, and applications—a theme of this book since its inception—is strengthened.* As researchers intensify their efforts to generate findings that can be applied to real-life situations, I have placed greater weight on social policy issues and sound theory- and research-based practices.

### TEXT PHILOSOPHY

The basic approach of this book has been shaped by my own professional and personal history as a teacher, researcher, and parent. It consists of six philosophical ingredients that I regard as essential for students to emerge from a course with a thorough understanding of child development:

**1. An understanding of major theories and the strengths and shortcomings of each.** The first chapter begins by emphasizing that only knowledge of multiple theories can do justice to the richness of child development. As I take up each age sector and aspect of development, I present a variety of theoretical perspectives, indicate how each approach highlights previously overlooked contributions to development, and discuss research that has been used to evaluate them. Consideration 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.** Students are provided 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 many ways, children have proved to be far more competent than they were believed to be in the past. Current evidence on the timing and sequence of development, along with

its implications for process, is presented throughout the book.

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

**5. A sense of the interdependency of all aspects of development—physical, cognitive, emotional, and social.** Every chapter takes an integrated approach to understanding children. I show how physical, cognitive, emotional, and social development are interwoven. Within the text narrative, students are referred to other sections of the book to deepen their grasp of relationships among various aspects of change.

**6. 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 current focus 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.

## TEXT ORGANIZATION

I have chosen a chronological organization for this text. The chronological approach has the 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.

## NEW COVERAGE IN THE THIRD EDITION

In this edition, I continue to represent a rapidly transforming contemporary literature with theory and research from over 1,500 new citations. To make room for new coverage, I have condensed and reorganized some topics and eliminated others that are no longer as crucial in view of new evidence. The following is a sampling of major content changes in this edition, organized by part divisions of the book (a more complete description of changes can be found in the Annotated Instructor's Manual that accompanies the text):

### ■ THEORY AND RESEARCH IN CHILD DEVELOPMENT

Attention to new theoretical directions—the dynamic systems perspective—and new sections on psychophysiological methods and the microgenetic design (Chapter 1).

### ■ FOUNDATIONS OF DEVELOPMENT

Revised section on environmental contexts for development, with increased attention to ecological systems theory and consideration of the impact of individualist and collectivist values on child and family policies (Chapter 2). Current research on effects of prenatal nutrition on development, including a new Social Issues box on vitamin–mineral supplements, with special attention to the power of folic acid to prevent neural tube defects (Chapter 3). Expanded section on the transition to parenthood, including changes in the family system and parent interventions (Chapter 4).

### ■ INFANCY AND TODDLERHOOD:

#### THE FIRST TWO YEARS

Additional attention to brain growth, including a new Biology and Environment box on sensitive periods in brain development (Chapter 5). New sections on dynamic systems theory of motor development and on object perception (Chapter 5). Revised and updated research evaluating Piaget's theory of sensorimotor development,

including a new section on physical reasoning (Chapter 6). Expanded discussion of recent ideas about how early cognitive development takes place, including an introduction to and critique of the modular view of the mind (Chapter 6). Revised section on the impact of infant and toddler day care on mental development, with special attention to recent evidence on the quality of American day care (Chapter 6). New section on development of peer sociability in infancy and toddlerhood, and enhanced treatment of self-development, including the role of self-awareness in early emotional development (Chapter 7).

#### ■ EARLY CHILDHOOD: TWO TO SIX YEARS

New evidence on infectious disease, including oral rehydration therapy as a life-saving treatment for diarrhea in developing countries; the status of childhood immunization in the United States and other industrialized nations; and the impact of otitis media on development (Chapter 8). New sections on development of spatial representation and on evaluating Vygotsky's theory (Chapter 9). Enhanced discussion of the young child's theory of mind, including diverse factors that contribute to an early understanding of mental life (Chapter 9). New sections on cultural variations in peer sociability, parental and sibling influences on early peer relations, and television as a source of gender stereotypes (Chapter 10). New research on the distinction between overt and relational aggression, including sex differences (Chapter 10).

#### ■ MIDDLE CHILDHOOD: SIX TO ELEVEN YEARS

Current findings on the prevalence and causes of unintentional injury in middle childhood (Chapter 11). New sections on the impact of class size on academic achievement and on Vygotsky-inspired approaches to elementary education, including reciprocal teaching (Chapter 12). Special attention to variations in friendship quality between prosocial and aggressive children, and new sections on only children and on gay and lesbian families (Chapter 13).

#### ■ ADOLESCENCE: THE TRANSITION TO ADULTHOOD

New research on biological contributions to homosexuality and a new Biology and Environment box on homosexual identity development, including coming out (Chapter 14). New sections on postformal thought, the role of metacognition in advanced cognitive development, and the impact of personality on vocational choice (Chapter 15). Updated coverage of sex differences in mental abilities, including single-sex secondary schools and a new Biology and Environment box on sex differences in spatial abilities (Chapter 15). New section on responses to hypothetical versus real-life moral dilemmas, highlighting factors beyond rationally weighing alternatives that influence moral judgment (Chapter 16). Special emphasis on bio-

logical and environmental contributions to adolescent problem behavior, as illustrated by depression, suicide, and delinquency, including a new Biology and Environment box on two routes to adolescent delinquency (Chapter 16).

### INSTRUCTOR'S SUPPLEMENTS

A variety of teaching tools are available to assist instructors in organizing lectures, planning demonstrations and examinations, and ensuring student comprehension.

#### ■ ANNOTATED INSTRUCTOR'S MANUAL (AIM)

This convenient teaching tool provides Learning Objectives, Test Bank Item numbers, references to Lecture Extensions and Learning Activities, answers to "Ask Yourself . . ." questions, and other instructor's annotations keyed to reduced versions of actual text pages. It also offers a chapter summary, list of new material, and Chapter-at-a-Glance grid for each chapter.

#### ■ INSTRUCTOR'S RESOURCE MANUAL (IRM)

Prepared by Heather A. Bouchey, University of Denver, Laura E. Berk, Illinois State University, and Belinda M. Wholeben, Rockford College, this thoroughly revised IRM contains additional material to enrich your class presentations. For each chapter, the IRM provides a Brief Chapter Summary, detailed Lecture Outline, Lecture Extensions, Learning Activities, Suggested Readings, and Media Materials.

#### ■ TEST BANK

Prepared by Carol Satterfield Tate, University of the South, the test bank contains over 2,000 multiple-choice questions, each of which is cross-referenced to a Learning Objective, page-referenced to chapter content, and classified by type (factual, applied, or conceptual); essay questions; and premade tests.

#### ■ COMPUTERIZED TEST BANK

This computerized version of the test bank is available in Windows and Macintosh formats using ESATEST III, the best-selling test generation software.

#### ■ TRANSPARENCIES

Over 200 full-color transparencies taken from the text and other sources are referenced in the margins of the Annotated Instructor's Manual for the most appropriate use in your classroom presentation.

#### ■ SEASONS OF LIFE VIDEO SERIES

Illustrating the text's interdisciplinary focus, this five-video series explores a multitude of biological, psychologi-

cal and social influences on development. Nearly 75 psychologists, biologists, sociologists, and anthropologists present theory, methods, and research. Your publisher's representative can provide you with details on class enrollment restrictions.

■ **FILMS FOR THE HUMANITIES AND SCIENCES:  
CHILD DEVELOPMENT VIDEO AND VIDEODISC**

Complementing the text's linkage of theory and research to application, both the video and the videodisc feature high-interest segments on topics such as learning disabilities, fetal alcohol syndrome, genetic counseling, and teen suicide.

■ **"INFANTS, CHILDREN, AND ADOLESCENTS  
IN ACTION" OBSERVATION PROGRAM**

In conjunction with the Illinois State University Television Production Studio, I have created this real-life videotape, containing hundreds of observation segments that illustrate the many theories, concepts, and milestones of child development. An Observation Guide helps students use the video in conjunction with the textbook to deepen their understanding of the material and apply what they have learned to everyday life. The videotape and Observation Guide are free to instructors who adopt the text and are available to students at a discount when packaged with the text.

■ **WEBSITE**

<http://www.abacon.com/berk>

Designed for students and faculty of Child Development and Human Development or Lifespan classes, this comprehensive website encourages online and interactive learning and also offers current links and information about development. It includes an Online Study Guide, a Teaching Aids section, biographical sketches of personalities from the text, and a variety of additional features.

**ACKNOWLEDGMENTS**

The dedicated contributions of a great many individuals have helped make this book a reality. An impressive cast of reviewers provided many helpful suggestions, constructive criticisms, and encouragement and enthusiasm for the organization and content of the book. I am grateful to each one of them.

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I have been fortunate to work with an exceptionally capable editorial team at Allyn and Bacon. Sean Wakely, Vice President and Editor-in-Chief, has inspired and energized my work, bringing to bear a combination of qualities unmatched in my experience—keen awareness of instructors' and students' needs, balanced attention to the text's overall concept and to vital details, thorough manuscript reviewing, and a sense of enthusiasm, respect for scholarship, and vision that has prompted me to strive for greater heights. I have especially appreciated his forthrightness and day-to-day communication, through which he forges a true editor–author partnership. Sean's innovative approach to text editing led me to develop the *Biology and Environment and Caregiving Concerns* features for this edition. I look forward to working with him on future editions and other projects in the years to come.

I would like to express a heartfelt thank you to Joyce Nilsen, Vice President, Field Marketing, for the outstanding work she has done over the years in marketing my texts. Joyce has made sure that accurate and clear information about the texts and their ancillaries reached Allyn and Bacon's sales force and that the needs of prospective and current adopters were met. Each time I have watched Joyce teach others about my books, I have been impressed with both her knowledge of their content and the vitality with which she conveys her message. She cares deeply about my texts—and about the teaching of child development in colleges and universities. It is a privilege and pleasure to have

her in command of marketing activities for the third edition of *Infants, Children, and Adolescents*.

Sue Gleason, Senior Development Editor, coordinated the complex development activities for the book and the preparation of text supplements. Her exceptional management skills, astute advice, and prompt and patient responses to my concerns and queries have enhanced every aspect of this edition. I am grateful to Barbara Brooks for a fresh look at the text narrative and for many recommendations for effective page and illustration layout. Annie Reid read the manuscript, offering a wealth of helpful suggestions for clarity and economy of expression. She has contributed immeasurably to the quality of the final product, as she has done for each of my texts over the past six years.

Elaine Ober, Editorial-Production Manager, assembled an outstanding production team. Tom Dorsaneo coordinated the complex production tasks that resulted in this beautiful third edition. His competence, courtesy, diplomatic problem solving, and interest in the subject matter as an involved grandfather of an energetic preschooler have made working with him a great delight. Betty Barr's meticulous, caring copy editing ensured accuracy and precision on every page. I thank Sarah Evertson for obtaining the exceptional photographs that so aptly illustrate the text narrative. Jessica Barnard, Editorial Assistant, graciously arranged for manuscript reviews and attended to a wide variety of pressing, last-minute details.

A final word of gratitude goes to my family whose love, patience, and understanding have enabled me to be wife, mother, teacher, researcher, and text author at the same time. My sons, David and Peter, grew up with my child development texts, passing from childhood to adolescence and then to young adulthood as successive editions were written. David has a special connection with the books' subject matter as an elementary school teacher; Peter is embarking on the study of law as the book goes to press. Both continue to enrich my understanding through reflections on events and progress in their own lives. This past year, David's reports of his first-year teaching experiences led me to think much more deeply about diversity in development as I wrote. My husband, Ken, willingly made room for this time-consuming endeavor in our life together and communicated his belief in its importance in a great many unspoken, caring ways.

Laura Berk

## A PERSONAL NOTE TO STUDENTS

My twenty-eight years of teaching child development have brought me in contact with thousands of students like you—students with diverse college majors, future goals, interests, and needs. Some are affiliated with my own department, psychology, but many come from other child-related fields—education, sociology, anthropology, family studies, and biology, to name just a few. Each semester, my students' aspirations have proved to be as varied as their fields of study. Many look toward careers in applied work 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, whereas others are already parents who come with a desire to better understand and rear their own youngsters. And almost all arrive with a deep curiosity about how they themselves developed from tiny infants into the complex human beings they are today.

My goal in preparing this third edition of *Infants, Children, and Adolescents* is to provide a textbook that meets the instructional goals of your course as well as your own personal needs. To achieve these objectives, I have grounded this book in a carefully selected body of classic and current research brought to life with stories and vignettes about children and families, many of whom I have known personally. In addition, the text discussion highlights the joint contribution of biology and environment to development, explains how the research process helps solve real-world problems, and pays special attention to policy issues that are crucial for safeguarding children's well-being in today's world. I have also used a clear, engaging writing style and provided the following pedagogical program that will assist you in mastering information, integrating the various aspects of development, critically examining controversial issues, and applying what you have learned.

### PEDAGOGICAL FEATURES

Maintaining a highly accessible writing style—one that is lucid and engaging without being simplistic—continues to be one of this text's goals. I will frequently converse with and encourage you to relate what you read to your own life. In doing so, I hope to make the study of child development involving and pleasurable.

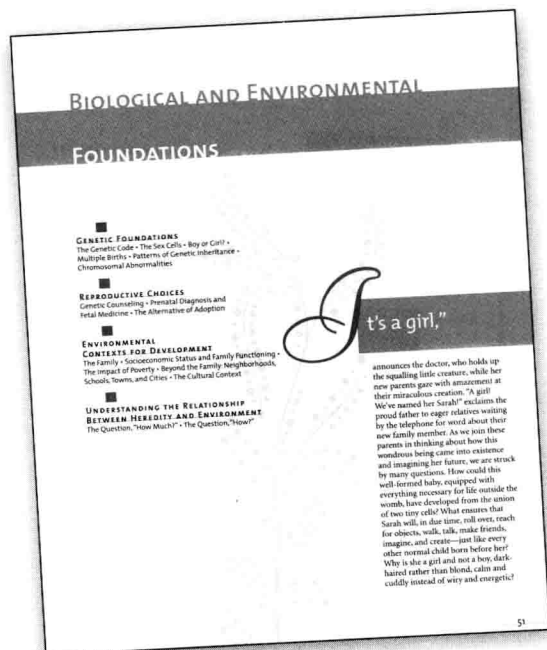
■ **Stories and Vignettes About Children.** To help you construct a clear image of development and to enliven the text narrative, each chronological age division is unified by case examples woven throughout that set of chapters. For example, within the infancy and toddlerhood section, we'll sit in on periodic gatherings of three mothers and their babies, observe dramatic changes and striking individual differences in the children's capabilities, and address the impact of family background, child-rearing practices, and parents' and children's life experiences on development. Besides a set of main characters, many additional vignettes offer vivid examples of development and diversity among children. Student response to this feature has been so positive that I have made a special effort to enhance it in this edition.



■ **Chapter Introductions and End-of-Chapter Summaries.** To provide you with a helpful preview of what you 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 important terms, will remind you of key points in the text discussion. Review questions are included in the summaries to encourage active study.

■ **Brief Reviews.** Interim summaries of text content appear at the end of most major sections in each chapter. They enhance retention by encouraging you to reflect on information you have just read before moving on to a new section.

■ **Ask Yourself . . .** 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 you to resolve them in light of what you have learned. In this way, the questions inspire deeper mastery of child development and new insights.



4 BIRTH AND THE NEWBORN BABY

1989). In contrast, the poor NBAS scores of undernourished infants born in Zambia, Africa, are quickly changed by the way their mothers care for them. The Zambian mother carries her baby about on her hip all day, providing a rich variety of sensory stimulation. As a result, by 1 week of age a once unresponsive newborn has been transformed into an alert, contented baby (Brazelton, Koslowski, & Tronick, 1978).

Can you tell from these examples why a single NBAS score is not a good predictor of later development? Some newborn behavior and parenting styles combine to shape developmental outcomes. Some newborn behavior and parenting styles combine to shape developmental outcomes. Some newborn behavior and parenting styles combine to shape developmental outcomes.

#### BRIEF REVIEW

The newborn baby is equipped with a wide variety of capacities for relating to the surrounding world. Reflexes are the infant's most obvious organized behavior patterns. Some, like sucking, have survival value. The senses of touch, taste, smell, and hearing are well developed in the newborn baby. Vision is least mature, but newborns actively explore the environment with the visual abilities that they have. Infants move in and out of four states of arousal throughout the day and night. Sleep is the dominant state; out of five states of arousal throughout the day and night. Sleep is the dominant state; out of five states of arousal throughout the day and night. Sleep is the dominant state; out of five states of arousal throughout the day and night.

#### THE TRANSITION TO PARENTHOOD

The early weeks after a new baby enters the family are full of profound changes. The mother needs to recover from childbirth and adjust to massive hormonal shifts in her body. If she is breast-feeding, energies must be devoted to working out this intimate relationship. The father also needs to become a part of this new threesome while supporting the mother in her recovery. At times, they feel somewhat jealous of the baby, who constantly demands and gets his full attention (Jordan, 1992). And as we will see in Chapter 7, in families with other children, siblings—especially those who are young and first-born—understandably feel displaced. They often react with jealousy and anger.

While all this is going on, the tiny infant is very aware of his urgent physical needs, demanding to be fed, changed, and comforted at odd times of the day and night. The family schedule becomes irregular and uncertain. Yolanda spoke candidly about the changes that she and her experienced.

Neonatal Behavioral Assessment Scale (NBAS) A test developed to assess the newborn period.



- **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. They include the U.N. Convention on the Rights of the Child, the first legally binding human rights treaty to recognize the civil, political, economic, social, and cultural rights of children; and Regulating Children's Television, addressing societal obstacles to controlling harmful TV and providing strategies parents can use to protect their children.



- **Boxes.** Three types of boxes accentuate the philosophical themes of this book.
- **Cultural Influences** boxes underscore the impact of context and culture on all aspects of development. They include such topics as Father-Infant Relationships among the Aka, a hunter-gatherer people of Central Africa, highlighting the importance of a warm marital bond for infant-father attachment; and the Impact of Ethnic and Political Violence on Children, emphasizing the role of parental and community support in preventing lasting negative consequences.



- **Biology and Environment** boxes present a balanced, interconnected view of key biological and environmental influences on development. Examples are Resilient Children, addressing personal and experiential factors that help children spring back from adversity; and the Biology Basis of Shyness and Sociability, focusing on genetic and physiological contributions to temperament and the extent to which environment can modify a child's temperamental style.



# Milestones

## OF DEVELOPMENT IN INFANCY AND TODDLERHOOD

AGE	PHYSICAL	COGNITIVE	LANGUAGE	EMOTIONAL/SOCIAL
Birth— 6 months	<ul style="list-style-type: none"> <li>• Rapid height and weight gain (184)</li> <li>• Reflexes decline (192)</li> <li>• Sleep organized into a day-night schedule (184)</li> <li>• Nodds head up, rolls over, and reaches for objects (184)</li> <li>• Can be classically and operantly conditioned (190–191)</li> <li>• Exhibits taste to unchanging stimuli; disabituates to novel stimuli (191)</li> <li>• Hearing well developed by the end of this period; displays greater sensitivity to speech sounds of own language (191)</li> <li>• Sensitive to motion and binocular depth cues (191–193)</li> <li>• Perceives stimuli as organized patterns; recognizes and prefers pattern of human face (200–201)</li> </ul>	<ul style="list-style-type: none"> <li>• Engages in deferred imitation of adult's facial expressions (192)</li> <li>• Repeats chance behavior leading to pleasurable and interesting results (194–195)</li> <li>• Aware of object permanence and other object properties; exhibits non-disabituating task (191)</li> <li>• Attention becomes more efficient and flexible (193)</li> <li>• Recognition memory for people, places, and objects improves (194)</li> <li>• Forms perceptual class groups based on objects' similar features (193)</li> </ul>	<ul style="list-style-type: none"> <li>• Engages in cooing and, by the end of this period, babbling (141)</li> <li>• Established joint attention with care givers, who labels objects and events (141)</li> </ul>	<ul style="list-style-type: none"> <li>• Shows signs of almost all basic emotions (happiness, interest, surprise, fear, anger, sadness, disgust) (151)</li> <li>• Social smile and laughter emerge (151–153)</li> <li>• Manifests adult's emotional expressions during face-to-face interaction (151)</li> <li>• Self emerges (154)</li> <li>• If infant has access to mirrors, begins to distinguish own image from that of others (154)</li> </ul>
7–11 months	<ul style="list-style-type: none"> <li>• Sits alone, crawls, walks (184)</li> <li>• Shows refined grasp (186)</li> <li>• Perceives larger speech units crucial to understanding meaning (191)</li> <li>• Sensitive to pictorial depth cues (191)</li> <li>• Organizes many stimuli into meaningful patterns (191)</li> <li>• Rolls on, shuffles, crouches and begins to distinguish objects from their surroundings (194)</li> </ul>	<ul style="list-style-type: none"> <li>• Combines sensorimotor schemes (192)</li> <li>• Engages in intentional, goal-directed, behavior (192)</li> <li>• Finds objects hidden in one place (194)</li> <li>• Understanding of object properties and physical causality expands (198)</li> <li>• Engages in deferred imitation of adult's actions on objects (190)</li> <li>• Recall memory for people, places, and objects improves (194)</li> </ul>	<ul style="list-style-type: none"> <li>• Babbling expands to include sounds of spoken languages and the child's language community (141–143)</li> <li>• Uses preverbal gestures (showing, pointing) to communicate (143)</li> </ul>	<ul style="list-style-type: none"> <li>• Anger and fear increase in frequency and intensity (151)</li> <li>• Stranger anxiety and separation anxiety appear (153–157)</li> <li>• Uses caregiver as a secure base for exploration (171)</li> <li>• Shows "clear-cut" attachment to familiar caregivers (171)</li> </ul>

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[illegible]

- **Additional Tables, Illustrations, and Photographs.** Additional tables are liberally included to help you 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. In this edition, the photo program has been extended. Each photo has been carefully selected to portray the text discussion and to represent the diversity of children in the United States and around the world.
- **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.

- **FYI . . . For Further Information and 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, phone numbers, and website addresses of organizations that disseminate information about child development and offer special services.



## STUDY AIDS

Beyond the study aids found in this textbook, Allyn and Bacon offers a number of supplements for students. Ask your instructor or your bookstore about their availability. The website is open to all visitors to the Internet.

- **Study Guide.** Prepared by Jenny L. Churchill and Laura E. Berk, Illinois State University, this helpful guide offers Chapter Summaries, Learning Objectives, Study Questions organized according to major headings in the text, “Ask Yourself” questions that also appear in text margins, Suggested Readings, crossword puzzles for mastering important terms, and multiple-choice self-tests.
- **Practice Tests.** Twenty multiple-choice items per chapter plus an answer key with justifications are drawn from the test bank to assist you in preparing for course exams.
- **Website.** Visit <http://www.abacon.com/berk>, an easy-to-use website that features an interactive study guide, current links to information about development, biographical sketches of personalities from the text, and other learning aids.

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

Laura E. Berk

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