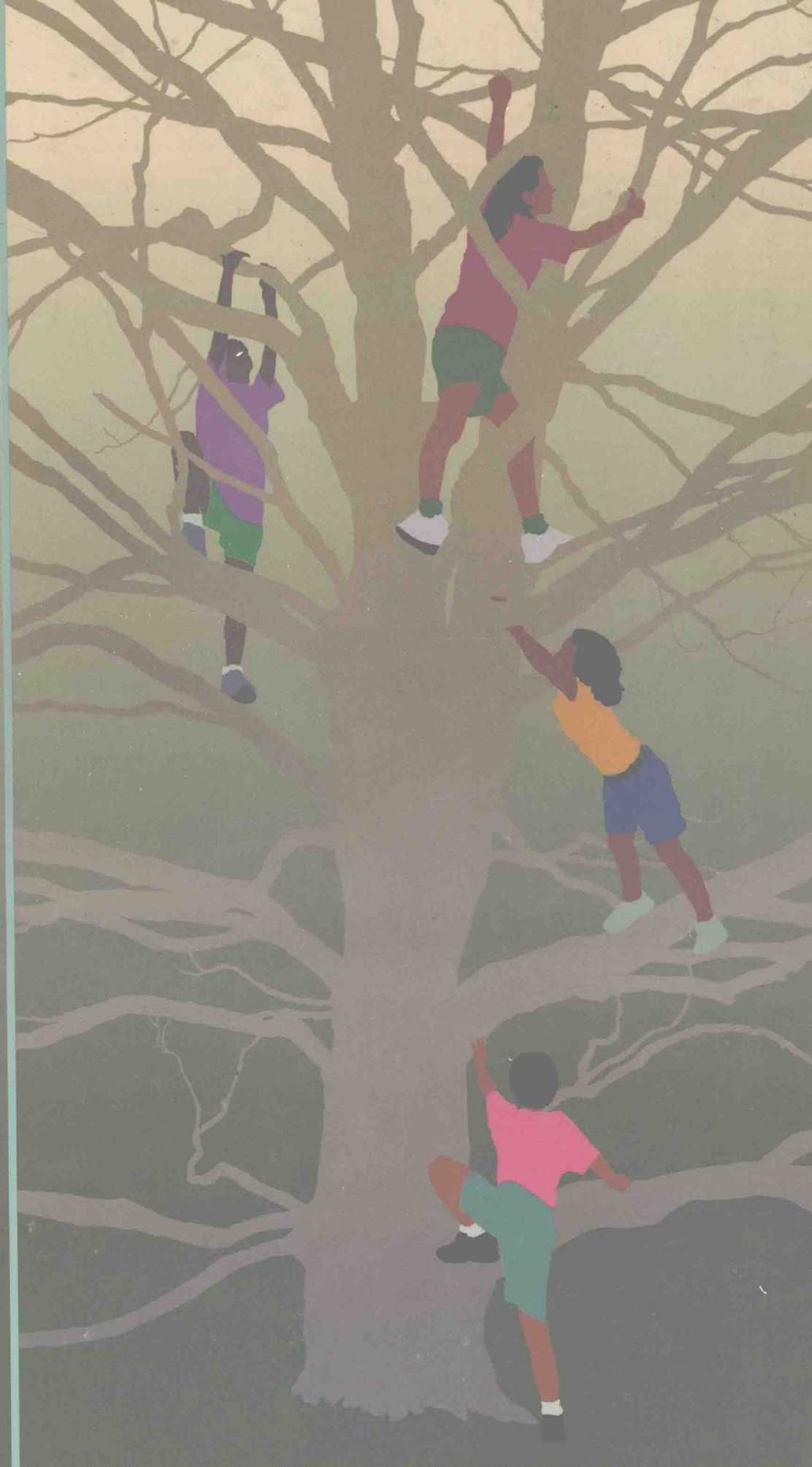


Child Development

Fourth Edition



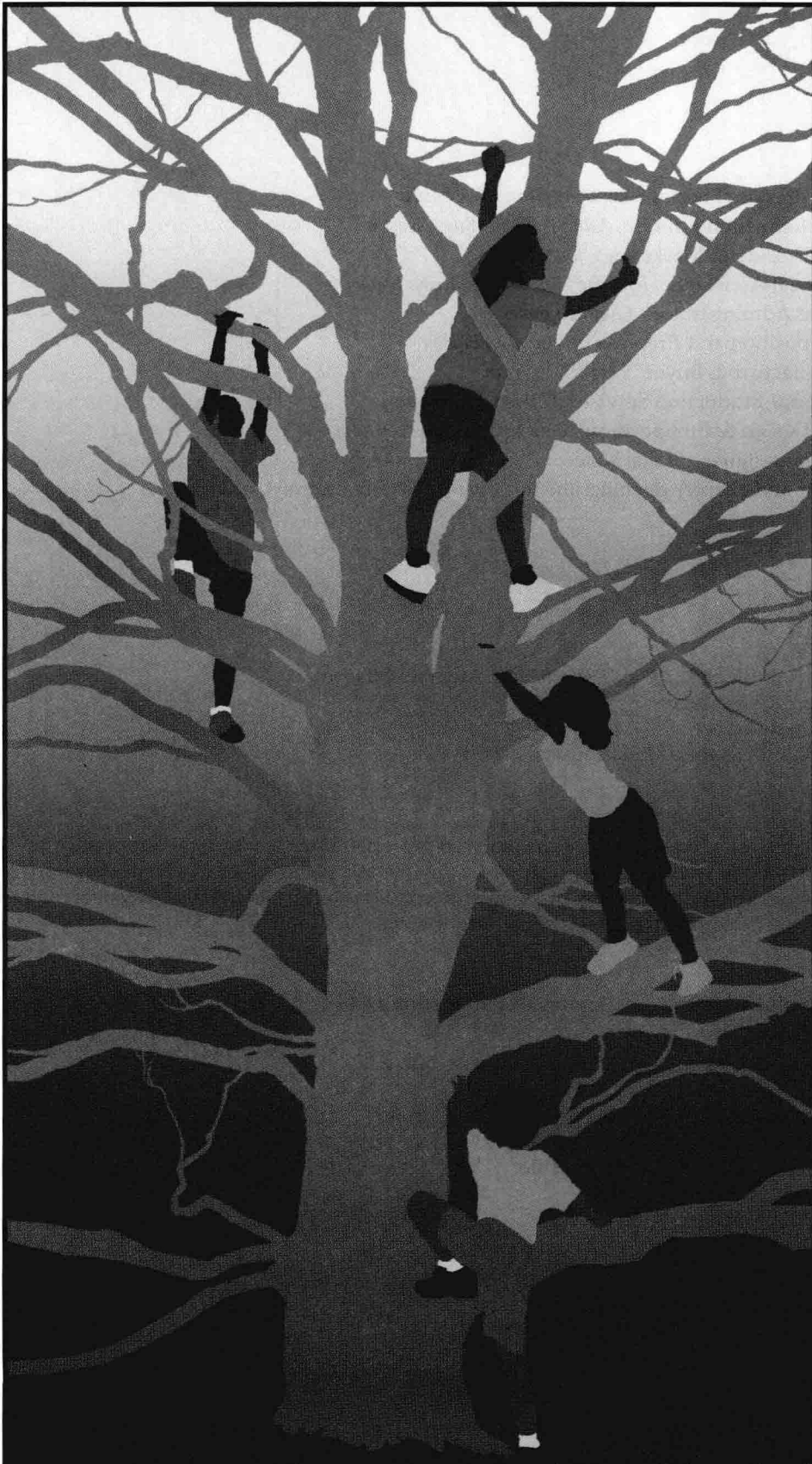
LAURA E.
BERK

Child Development

FOURTH EDITION

LAURA E. BERK
ILLINOIS STATE UNIVERSITY

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With gratitude, admiration, and love,
To Esther M. Lentschner
and in memory of my cousin
Walter S. Lentschner

Preface



M

y twenty-six 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, family studies, sociology, anthro-

pology, and biology, to name just a few. Each semester the 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, whereas others are already parents who come with a desire to better understand and rear 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 preparing this fourth edition of *Child Development* is to provide a textbook that meets the instructional goals of the course as well as the varied needs of students. I aimed for a text that is intellectually stimulating, that includes depth as well as breadth of coverage, 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 theory and research, emphasized how the research process helps solve real-world problems, highlighted commonalities and differences among ethnic groups and cultures, and paid special attention to policy issues that have a crucial bearing on the well-being of children in today's world. I have also used a clear, engaging writing style and provided a unique pedagogical program that assists students in mastering information, integrating the various aspects of development, and applying what they have learned.

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 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 THE DIVERSE ARRAY OF THEORIES IN THE FIELD 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. In each topical domain, I present a variety of theoretical perspectives, indicate how each highlights previously overlooked aspects of development, and discuss research that has been used to evaluate them. If one or two theories have emerged as specially prominent in a particular area, I indicate why, in terms of the theory's broad explanatory power. Discussion of contrasting theories also serves as the context for an evenhanded analysis of many controversial issues throughout the text.

■ **2. AN APPRECIATION OF BASIC RESEARCH STRATEGIES TO INVESTIGATE CHILD DEVELOPMENT.** To evaluate theories, students need a firm grounding in basic research design and methodology. I devote an entire chapter to a description and critique of research strategies. Throughout the book, numerous studies are discussed in sufficient detail for students to use what they have learned to critically assess the findings, conclusions, and implications of research.

■ **3. KNOWLEDGE OF BOTH THE SEQUENCE OF CHILD DEVELOPMENT AND THE PROCESSES THAT UNDERLIE IT.** Students are provided 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, children are far more competent beings than they were believed to be in the past. Recent evidence on the timing and sequence of development, along with its implications for process, is presented in detail throughout the book.

■ **4. AN APPRECIATION OF THE IMPACT OF CONTEXT AND CULTURE ON CHILD DEVELOPMENT.** A wealth of research indicates more powerfully than ever before that children live in rich contexts that affect all aspects of development. Throughout the text, consistent, even-handed attention is granted to both biological and social contexts for development. In addition, students travel to distant parts of the world as I review a growing body of cross-cultural evidence. The text narrative also discusses many findings on ethnically diverse children within the United States. Besides highlighting the role of immediate settings, such as family, neighborhood, and school, I underscore the impact of larger social structures—societal values, laws, and governmental programs—on children’s well-being.

■ **5. A SENSE OF THE INTERDEPENDENCY OF ALL DOMAINS 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. Within the text narrative and in the Connections tables at the end of each chapter, students are referred to other sections of the book that deepen their understanding of relationships among various aspects of change.

■ **6. AN APPRECIATION OF THE INTERRELATEDNESS OF THEORY, RESEARCH, AND APPLICATIONS.** Throughout this book, I stress 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 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. Many important applied topics are considered—maternal nutrition and prenatal development, prevention of sudden infant death syndrome, brain growth spurts, teenage pregnancy and childbearing, the importance of make-believe play, early intervention for at-risk children, attention-deficit hyperactivity disorder, children’s eyewitness testimony, bilingual education, maternal employment and day care, child maltreatment, and more.

TEXT ORGANIZATION

I have organized this text topically, in a manner best suited to a comprehensive, discussion of theory, research, and applications and an uninterrupted view of development within each domain. The book retains the same basic structure that received praise from users in its previous editions. It is divided into 5 parts and 15 chapters, each of which develops the six philosophical themes just described.

■ **PART I. THEORY AND RESEARCH IN CHILD DEVELOPMENT.** This section provides an overview of the history of the field, twentieth-century theories, and research strategies. **Chapter 1** stresses the importance of theories as organizing frameworks for understanding child development and traces changes in views of childhood from medieval to modern times. The study of child development is depicted as interdisciplinary endeavor that aims to both understand children and improve their life condition. **Chapter 2** is devoted to strategies for conducting scientifically sound research.

Commonly used research methods and both general and developmental research designs are explained and critiqued. The chapter concludes with a consideration of ethics in research on children.

■ **PART II. FOUNDATIONS OF DEVELOPMENT.** A trio of chapters introduces students to the foundations of development: **Chapter 3** combines a discussion of genetic mechanisms and prenatal and perinatal environmental influences into a single, integrated discussion of these earliest determinants of development. A concluding section takes up the various ways in which researchers conceive of the relationship between heredity and environment as a prelude to revisiting the nature–nurture controversy in later chapters. **Chapter 4** is devoted to an overview of the rapidly expanding literature on infant capacities. Research on newborn reflexes, states, and learning capacities is reviewed, followed by a consideration of early motor and perceptual development. The chapter closes with the question of whether infancy is a sensitive period in which certain experiences must occur to ensure healthy development. **Chapter 5** addresses physical growth, including development of the brain. The close connection between physical and psychological development is emphasized. A variety of hereditary and environmental influences on physical growth are considered.

■ **PART III. COGNITIVE AND LANGUAGE DEVELOPMENT.** Four chapters treat the diverse theories and wealth of research on cognitive and language development. **Chapter 6** is devoted to Piaget’s cognitive-developmental theory and Vygotsky’s socio-cultural theory. Students are given a thorough grounding in Piagetian theory as a prerequisite to studying language, emotional, and social-cognitive development in later chapters. With its strong emphasis on the social context of cognition, Vygotsky’s theory has recently risen to the forefront of the field, stands as a major competing approach to Piaget’s, and therefore shares the title of Chapter 6. The chapter also introduces the nativist, modular view of the mind as yet another perspective that has recently become influential. **Chapter 7** offers an introduction to information processing. General and developmental models are reviewed along with research on each major facet of the information-processing system. The chapter also discusses recent applications of information processing to children’s academic learning and concludes with an analysis of the strengths and weaknesses of the information-processing perspective. **Chapter 8**, on intelligence, provides an overview of the intelligence testing movement and addresses a wide variety of controversial issues and research findings, including ethnic and social class differences in IQ, heritability of intelligence, and cultural bias in the tests. The concluding section moves beyond IQ to a discussion of creativity. **Chapter 9** provides a comprehensive introduction to language development, including behaviorist, nativist, and interactionist theories. The main body of the chapter is organized around the four components of language: phonology, semantics, grammar, and pragmatics. The chapter also addresses such questions as: Can nonhuman primates acquire language? Is there a sensitive period for language learning? How does bilingualism affect children’s development?

■ **PART IV. PERSONALITY AND SOCIAL DEVELOPMENT.** Coverage of personality and social development is divided into four chapters: **Chapter 10**, on emotional development, provides an overview of theory and research on children’s expression and understanding of emotion, the origins of temperament and its implications for cognitive and social development, and infant–caregiver attachment. The relationship of quality of caregiving, infant temperament, parents’ internal working models, maternal employment and day care, and social and cultural contexts to the attachment bond are among the special issues considered. **Chapter 11** offers an overview of the development of social cognition. It is divided into three sections: children’s understanding of self, other people, and relations among people. Among the topics included are young children’s belief–desire reasoning; self-concept and self-esteem; achievement-related attributions; identity; perspective taking; friendship; and social problem solving. **Chapter 12** addresses moral development. The main body of the chapter is devoted to a review of sociobiological, psychoanalytic, social learning, and cognitive-developmental theories and related research. Child-rearing practices that foster moral internalization, cross-cultural research on moral reasoning, the controversial issue of whether males and females differ in moral understanding, and the development of self-control and aggression are among the special features of this chapter. **Chapter 13** focuses on sex-related differences and gender roles.

Biological and environmental influences on gender stereotyping and gender-role adoption, diverse theories and research on the development of gender-role identity, and sex-related differences in mental abilities and personality traits are discussed. The chapter also includes an applied section on developing non-gender-stereotyped children.

■ **PART V. CONTEXTS FOR DEVELOPMENT.** A final pair of chapters examines four highly influential contexts for development—family, peers, media, and schooling. **Chapter 14** considers the family from a social systems perspective. The bidirectional nature of parent–child interaction, the importance of links between the family and community for children’s optimal development, and styles of child rearing are highlighted. The central portion of this chapter discusses the impact of family lifestyles and transitions in on children’s development, including smaller families, one-child families, gay and lesbian families, adoptive families, and divorce, remarriage, maternal employment, and day care. The chapter concludes with a discussion of child maltreatment. In **Chapter 15**, the social systems perspective is extended to extrafamilial contexts for development. In the section on peer relations, research on the development of peer sociability, peer acceptance, peer groups, and peers as socialization agents is discussed. The middle portion of the chapter addresses the impact of television and computers on cognitive and social development. A concluding section on schooling considers such topics as educational philosophies, school transitions, teacher–pupil interaction, ability grouping, and cross-national research on academic achievement.

NEW COVERAGE IN THE FOURTH EDITION

In this edition, I continue to represent a burgeoning contemporary literature with theory and research from over 1,200 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.

Since the last edition, findings on both biological and cultural contributions to development have greatly expanded. In addition, the field of child development continues to forge productive links between research and social policy—a theme that I have extended in this edition. Social policy is elevated to the forefront of the text through a special section in Chapter 1 that provides an overview of the current condition of children and the social policy process. A wide variety of social policy topics are integrated into succeeding chapters.

The following is a sampling of major content changes in this edition:

- Updated description of ecological systems theory, including the chronosystem (Chapter 1)
- Heightened attention to psychophysiological methods and related new findings on perceptual development, brain lateralization, brain growth spurts, information processing, attention-deficit hyperactivity disorder, individual differences in mental abilities, and temperament (Chapters 2, 4, 5, 7, 8, and 10)
- New discoveries in genetics, including genetic imprinting, mapping human chromosomes, gene splicing, and reproductive technologies (Chapter 3)
- Expanded discussion of the limitations of heritability estimates and concordance rates (Chapter 3)
- Updated findings on prevention of sudden infant death syndrome (Chapter 4)
- New section on dynamic systems theory of motor development, with special attention to microgenetic and cross-cultural research (Chapter 4)
- Expanded discussion of factors underlying development of visual capacities; new emphasis on affordances as guiding perceptual development (Chapter 4)
- Current evidence on adolescent sexual activity; new research on the development of sexual orientation (Chapter 5)
- Enhanced discussion of brain development, including synaptic pruning, lateralization, and brain growth spurts (Chapter 5)
- New section on physical reasoning in infancy (Chapter 6)

- Expanded discussion of alternatives to Piaget’s account of domain-general, stagewise change, with special attention to the domain-specific, modular view of the mind (Chapter 6)
- New evidence on cultural and situational influences on mastery of Piagetian tasks, including the impact of schooling on logical operational abilities (Chapter 6)
- New section on Vygotsky’s view of the importance of make-believe play: expanded coverage of the implications of Vygotsky’s theory for education (Chapter 6)
- Updated research on information processing, including strategy development, planning, and children’s awareness of mental activities; expanded treatment of reconstructive processing, including a new section on fuzzy trace theory (Chapter 7)
- New section on autobiographical memory, with updated research on infantile amnesia and development of personal narratives (Chapter 7)
- Inclusion of dynamic assessment as a mental testing alternative for ethnic minority children (Chapter 8)
- Extensively revised section on the development of creativity (Chapter 8)
- Updated research on individual and cultural differences in language development (Chapter 9)
- New hypotheses about children’s strategies for acquiring word meanings, including syntactic bootstrapping and use of pragmatic cues (Chapter 9)
- Expanded discussion of cultural variations in emotional development, with coverage of self-conscious emotions, temperament, child problem behavior, and attachment (Chapter 10)
- New section on the relationship of parents’ internal working models to children’s attachment security (Chapter 10)
- New research on theory of mind, with special attention to children’s belief–desire reasoning (Chapter 11)
- Updated presentation of Dodge’s information-processing model of social problem solving (Chapter 11)
- Current findings on the influence of temperament on moral internalization (Chapter 12)
- Enhanced discussion of cultural variations in moral reasoning (Chapter 12)
- Expanded treatment of community and cultural influences on aggressive behavior and interventions for antisocial youths (Chapter 12)
- Updated evidence on sex-related differences in mental abilities and personality traits (Chapter 12)
- New research on ethnic variations in child rearing (Chapter 13)
- Enhanced coverage of family lifestyles and transitions, including new sections on adoptive families and gay and lesbian families (Chapter 14)
- New section on the impact of cultural values on peer sociability (Chapter 15)
- Updated evidence on the relationship of family ties to resistance to unfavorable peer pressure in adolescence (Chapter 15)
- Current evidence on the prevalence of television violence in the United States (Chapter 15)
- New research on the impact of teacher-directed versus child-centered classrooms on young children’s intrinsic motivation and emotional well-being (Chapter 15)
- Recent cross-national comparisons of academic achievement (Chapter 15)
- Many new and revised boxes—addressing such topics as resilient children; policy-relevant research on day care; children’s research risks; effects of vitamin–mineral supplements during pregnancy; educating children and adolescents about AIDS;

impact of low-level lead exposure on mental development; children's eyewitness testimony in court proceedings; implications of declaring English the official U.S. language for bilingual education; maternal depression and child development; building children's self-esteem; the impact of ethnic and political violence on children; regulating children's television; and the Reggio Emilia approach to early childhood education.

PEDAGOGICAL FEATURES

The pedagogical features of the text have been revised and expanded. A highly accessible writing style—one that is lucid and engaging without being simplistic—continues to be one of the text's strong points. I frequently converse with students, ask questions, 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 begin each chapter with an outline and overview of its content. Chapter introductions present lively examples of children's development and introduce controversial issues as a means of stimulating student interest. Comprehensive end-of-chapter summaries, organized according to the major divisions of each chapter and highlighting key terms, remind students of important points in the text discussion.
- **BRIEF REVIEWS.** Interim summaries of text content appear at the end of most 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.
- **BOXES.** Three types of boxes accentuate the philosophical themes of this book. Among these, seventeen new boxes and twenty-three revised boxes appear. Cultural Influences boxes highlight the impact of context and culture on all aspects of development. From Research to Practice boxes integrate theory, research, and applications. 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. Many Social Issues boxes have a "Point of View" theme, in that they encourage students to grapple with controversies and to express "Your Point of View . . ." through special activities.
- **MARGINAL GLOSSARY, END-OF-CHAPTER TERM LIST, AND END-OF-BOOK GLOSSARY.** Mastery of 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.
- **MILESTONES TABLES.** Milestones Tables that provide students with an overview of the sequence and timing of achievements in each domain of development appear throughout the text. These tables are designed to help students keep track of major developments as they consider a wealth of theory and research. At the same time, each Milestones table reminds students that individual differences exist in the precise age at which milestones are attained, a point made throughout the text discussion.
- **CONNECTIONS TABLES.** Each chapter concludes with a Connections table, which encourages students to continue exploring high-interest topics and integrate domains of development by turning to relevant information in other sections of the book. The Connections tables are designed to foster a coherent, unified picture of child development.
- **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 text content, illustrate the work of contemporary researchers, and represent the diversity of children around the world.

The dedicated contributions of many individuals helped make this book a reality and contributed to refinements and improvements in each edition. 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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A wealth of new findings and clashing viewpoints created particular challenges for revision of the cognitive portions of the text. I extend a special thank you to Elyse Lehman of George Mason University for discussing with me the best direction for these chapters. Her keen observations helped me strike an effective balance between rapid changes in the field and student needs. Peter Ornstein, University of North Carolina, Chapel Hill, generously took time to comment on sections addressing information-processing theories, assisting me in shaping the opening part of Chapter 7. Andrew Meltzoff of the University of Washington has continually kept me abreast of new findings in his research program. As a result, I have been able to represent fascinating discoveries in infant cognition in up-to-the-minute fashion.

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Several students contributed significantly to this edition. Lisa Otte and Christy Mangione, my graduate assistants, secured permissions for use of copyrighted material and spent many long hours in the library gathering literature for the revision. Kimberly DeVico helped assemble the annotations for the Annotated Instructor's Edition.

The text supplement package benefited from the talent and diligence of several individuals. Rhoda Cummings, University of Nevada, Reno, and Kerry Krafft and Brenda Lohman, Illinois State University, are responsible for a greatly enhanced Instructor's Resource Manual. Carol Satterfield Tate, University of the South, prepared the Test Bank. I am pleased to have collaborated with Cynthia Elias, a graduate of Harvard University Law School and a doctoral candidate in school psychology at Illinois State University, on the Study Guide for this edition.

I have been fortunate to work with an outstanding publishing staff at Allyn and Bacon. *Child Development* has benefited greatly from the experience and dedication of several highly capable editors—John-Paul Lenney, Diane McOscar, and Susan Badger—with whom I am pleased to have continuing relationships. Sean Wakely, Vice President and Editor-in-Chief, edited this fourth edition with unusual sensitivity, forthrightness, and diplomatic problem solving. A short time after his arrival at Allyn and Bacon, he encouraged me to explore the possibilities of a new medium for teaching child development. The resulting observation video, coordinated with the text's content, has been among my most exciting endeavors in recent years. I look forward to working with Sean on future editions and on other projects in the years to come.

Sue Gleason, Senior Developmental Editor, assisted in planning the new Point of View boxes. Her prompt and patient responses to my concerns and queries are very much appreciated. Annie Reid handled the day-to-day development work on the text and its supplements. It is difficult to find words that do justice to her contributions. Annie worked closely with me as I revised each chapter, making sure that every line and paragraph would be clear, every thought and concept precisely expressed and well developed. Her keen visual sense enhanced the illustration and photo program for this edition. Annie also brought remarkable organizational skill and attention to detail to the coordination of text supplements, ensuring their high quality.

Tom Dorsaneo transformed the production of the book into a pleasant, efficient process that permitted me to complete filming for the observation video while the text was prepared for publication. His competence, courtesy, and interest as an involved grandfather of an energetic toddler have made working with him a great delight. I thank Elsa Peterson for obtaining the outstanding photos of culturally diverse children in this edition. Jennifer Normandin and Erika Stuart, Editorial Assistants, 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 since I began this book in 1986. My sons, David and Peter, grew up with this text, passing from childhood to adolescence and then to young adulthood as successive editions were written. David, who received his Master's degree from Tulane University as the book went to press, has developed a special connection with its subject matter as he prepares for a career in teaching. Peter, a psychology major, business minor, and avid violinist, provided me with many an inspiring and restful respite from writing through his musical performances at Illinois Wesleyan University. My husband, Ken, willingly made room for this project in our family life and communicated his belief in its importance in a great many unspoken, caring ways.

—Laura E. Berk

About the Author

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