

Child Development

From **INFANCY** to **ADOLESCENCE** SECOND EDITION

Chronologically organized, **Child Development From Infancy to Adolescence, Second Edition** presents topics within the field of child development through unique and highly engaging Active Learning opportunities. The Active Learning features integrated within the print text and digital program foster a dynamic and personal learning process for students. Within each chapter, authors Laura E. Levine and Joyce Munsch introduce students to a wide range of real-world applications of psychological research in child development. The in-text pedagogical features and the accompanying digital components help students discover the excitement of studying child development and equip them with skills they can use long after completing the course.

NEW AND KEY FEATURES

- Located in the Interactive eBook, **enhanced Test Your Knowledge features** include videos of students answering select true/false questions with follow-up commentary by the authors.
- Approximately **1,500 new references** reflect cutting-edge topics such as the Zika virus and prenatal development, educational apps and children's learning, selfies and narcissism, and transgender and gender-nonconforming children and teens.
- **Journey of Research sections** illuminate how research evolves and informs new ideas on key child development topics.
- **Active Learning print and video content** demonstrates a wide range of activities, from actions students can try themselves to interactions with infants, children, and adolescents.

FREE DIGITAL TOOLS AND RESOURCES ACCOMPANY THIS TEXT

 **SAGE coursepacks**

INSTRUCTORS: **SAGE coursepacks** allows you to easily import this book's accompanying online resources into your school's learning management system (LMS). Visit edge.sagepub.com/levinechrono2e to learn more.

Learn more at sagepub.com/coursepacks.

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STUDENTS: **SAGE edge** provides an array of learning tools in one easy-to-navigate site to help you get a better grade. Visit edge.sagepub.com/levinechrono2e to access these resources.

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Levine • Munsch

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From INFANCY to ADOLESCENCE

SECOND
EDITION



SECOND EDITION

Child Development

From **INFANCY** to **ADOLESCENCE**

An Active
Learning
Approach

Laura E. Levine • Joyce Munsch



Child Development

From INFANCY to ADOLESCENCE

SECOND EDITION

With its signature active learning approach, **Child Development From Infancy to Adolescence: An Active Learning Approach, Second Edition**, is the most interactive introduction to child development today.

Learning Questions

- 8.1 What physical changes occur as children move from infancy into early childhood?
- 8.2 How do young children see and think about their changing bodies?
- 8.3 How are typical and atypical brain development similar, and how are they different?
- 8.4 What role do nutrition and good health habits play in early development?
- 8.5 What types of health threats can children in early childhood face?
- 8.6 How is child maltreatment a threat to young children?

CHECK YOUR UNDERSTANDING

Knowledge Questions

1. How do the bodies of young children change as they move from infancy into early childhood?
2. What does it mean to say that a child is in the 85th percentile of weight for children of her same age?
3. What is the body mass index, and why is it an important measure of physical growth?
4. How is the proximodistal principle reflected in the development of fine motor skills?

Critical Thinking

Your friend has expressed concern that her 4-year-old son seems clumsy when he is on the playground and says that she fears he may have a developmental coordination disorder. What advice and/or reassurance could you give her?



8

Physical Development in Early Childhood

TEST YOUR KNOWLEDGE

Test your knowledge of child development by deciding whether each of the following statements is true or false, and then check your answers as you read the chapter.

1. ☐ **True** ☐ **False** As early as 5 years of age, children show an anti-fat bias.
2. ☐ **True** ☐ **False** Parents should be concerned when their young child is curious about sexual issues.
3. ☐ **True** ☐ **False** There is good cause for alarm about the increase in the incidence of autism spectrum disorder in recent years.
4. ☐ **True** ☐ **False** The rate of childhood obesity appears to have finally begun to level off in the United States.
5. ☐ **True** ☐ **False** If a young child refuses a new food three or four times, parents should stop offering it to the child.
6. ☐ **True** ☐ **False** Many preschoolers do not get the recommended amount of physical activity each day.
7. ☐ **True** ☐ **False** Children who have a fever should never be treated with aspirin to bring the fever down.
8. ☐ **True** ☐ **False** Because children are still growing, they are more resistant to the effects of environmental toxins than adults.
9. ☐ **True** ☐ **False** The incidence of childhood cancer has increased in recent years.
10. ☐ **True** ☐ **False** In the United States, one child dies from child abuse or neglect every 4 days.

Learning Questions:

Each chapter opens with questions that help guide students as they read. At the end of the chapter, the questions are linked to the summary for review.

Check Your Understanding:

Each section of a chapter concludes with a set of questions that lets students check on their mastery of the material before moving on to the next topic.

Test Your Knowledge:

Enhanced **Test Your Knowledge** features include videos of students answering select true/false questions with follow-up commentary by the authors.



"The textbook covers development from birth to adolescence. The writing style is easy to read, and there are many opportunities to break down lectures into class discussions of materials by the authors' use of Active Learning sections, tables, and Learning Questions."

—ANDREA RASHTIAN
California State University, Northridge

Table 8.1 summarizes many of the motor milestones we see during early childhood. You can learn more about the development of children's motor skills by carrying out **Active Learning: Checklist of Motor Skill Development in Early Childhood** with a child.

ACTIVE LEARNING

Checklist of Motor Skill Development in Early Childhood

Use the checklist in Table 8.1 to assess a young child's motor skills. Choose either the gross motor skills list or the fine motor skills list. Begin testing a little below your child's age level and continue until the child is unable to perform several actions. Always respond positively to the child's attempts, and don't let the child become frustrated by asking him to perform actions that are much too difficult for him. You can demonstrate the motor skills and ask the child to perform them after you.

Were you surprised by any of the actions your child could or could not perform? How would you explain the upper limits of the child's abilities—lack of practice, level of brain maturation, the child's coordination, or other reasons? If possible, compare your observations with those of other students in your class. Did you find trends of physical development across ages, and did you find individual differences between children of the same age?

Motor Disability: Developmental Coordination Disorder

When delays in reading performance, American Psychological Association (APA) defines **developmental coordination disorder** as a condition in which a young child has difficulty with motor skills, such as walking, jumping, or writing, that interfere with a child's ability to perform age-appropriate tasks.

ACTIVE LEARNING

Developing Body Awareness



ACTIVE LEARNING VIDEO

Developing Body Awareness

Two-year-old Sabrina demonstrates her developing sense of body awareness.

Offer to play a game similar to Simon Says with a young child. Begin by having the child do the movements with

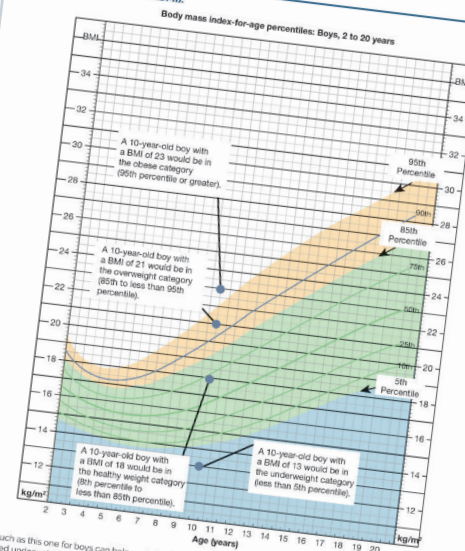
you as you name different parts of the child's body. As you say "Simon says touch your nose" or "Simon says touch your knees," do the action with the child watching you. Then just give the directions and allow the child to do the actions on his or her own without a model. Finally, ask the child to keep following the directions but with his or her eyes closed. Being unable to see her body makes this last task much harder for a young child.

Note how many errors the child makes in the three conditions. Does he or she have more difficulty touching different parts of the body with eyes closed? If you have a chance to try this activity with children of different ages, do you see differences in their ability to do the tasks as they get older? As always, if the game becomes difficult or frustrating for the child, thank him or her for playing with you and end the game.

To prepare for this activity, or if you do not have access to a child, you can watch the video of this Active Learning.

FIGURE 8.1

Using the body mass index (BMI).



Just as this one for boys can help us determine whether a child's ratio of weight to height places him at a healthy weight, a similar chart for girls can help us determine whether a girl's ratio of weight to height places her at a healthy weight. Note that there are different charts for girls and for people over 20.

Source: Behavioral and Prevention Research



DEVELOPMENT IN ACTION Gross Motor Skills

Active Learning exercises throughout the narrative turn reading into an active process.

Abundant **illustrations, charts, photos, and videos** bring concepts to life.

Active Learning videos: Demonstration videos are available for select **Active Learning** activities that involve interviewing or conducting an activity with a child or adolescent.

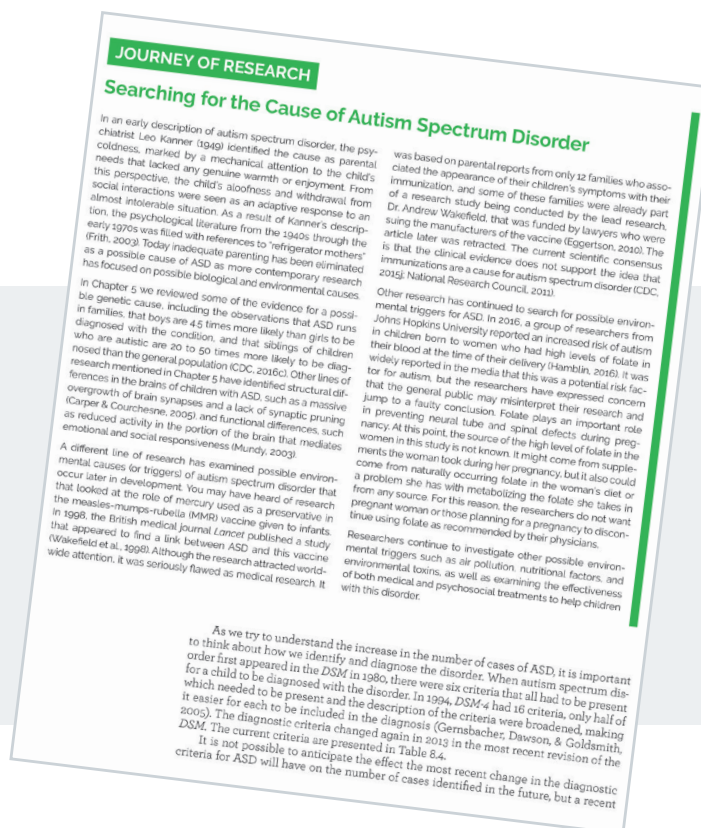
Development in Action videos: Professionals in the field of child development discuss various topics from the book, and videos taped in child care settings show children engaged in a number of the activities described in the text.

Journey of Research features trace the evolution of ideas in the field, enhancing the focus on deep learning, critical thinking, and analysis.



“It does a good job of explaining how research in a particular area has evolved over time while still remaining accessible to students.”

—JOEL A. HAGAMAN
University of the Ozarks



“This book introduces you to major concepts in developmental psychology centered around children and adolescents. It provides you opportunities to assess yourself and engage with the material through exercises and reflections, and it talks about major developmental issues facing children and adolescents in today’s society.”

—JULIA TANG, Mount Saint Mary’s University



“A text that allows you to instruct, and it makes connecting with your students easy.”

—HELEN GREEN, Cuyahoga Community College

Bring Development to Life for Your Students

Combine **Child Development From Infancy to Adolescence, Second Edition**, with Stephanie Wright’s *Case Studies in Lifespan Development* to connect students to the process of development across the lifespan.

This bundle option offers 12 diverse, engrossing, and comprehensive cases through which students will view realistic and varied life outcomes across key developmental stages. The bundle includes the Levine and Munsch textbook and a print collection of 12 cases, combined with digital Case Moments and assessments delivered within our SAGE coursepacks.

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SECOND EDITION

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From INFANCY to ADOLESCENCE

To all my lovely grandchildren: Isaac, Sabine, Sadie, Henry, and Leora —LL
To my wonderful family, always kind, thoughtful, and supportive —jm

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From **INFANCY** to **ADOLESCENCE**

*An Active
Learning
Approach*

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Acquisitions Editor: Lara Parra
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Printed in Canada

Library of Congress Cataloging-in-Publication Data

Names: Levine, Laura E., author. | Munsch, Joyce, author.

Title: Child development from infancy to adolescence : an active learning approach / Laura E. Levine, Central Connecticut State University, USA, Joyce Munsch, California State University, Northridge, USA.

Description: Second Edition. | Thousand Oaks : SAGE Publications, [2019] | Revised edition of the authors' Child development from infancy to adolescence, [2016] | Includes bibliographical references and index.

Identifiers: LCCN 2018038951 | ISBN 9781506398938 (pbk. : alk. paper)

Subjects: LCSH: Child psychology. | Child development.

Classification: LCC BF721 .L5226 2019 | DDC 155.4—dc23
LC record available at <https://lcn.loc.gov/2018038951>

This book is printed on acid-free paper.

19 20 21 22 23 10 9 8 7 6 5 4 3 2 1

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PREFACE

This second edition of *Child Development From Infancy to Adolescence: An Active Learning Approach* continues to reflect our primary goal of creating significant learning experiences for students who want to understand children and their development. In this chronologically organized book we provide current evidence-based knowledge about the development of infants, children, and adolescents with the pedagogical goal of helping students understand, retain, explore, and apply that knowledge. A central, organizing feature of this text is the learning activities embedded within each chapter. These activities take a variety of forms so that they stay fresh and interesting to the student and are integrated with the flow of information in the chapter rather than being stand-alone features that are easily skipped or ignored. We also provide opportunities throughout the book for students to learn about how our understanding of child development has evolved through the scientific process to reach our current state of knowledge.

This book can be used effectively by students who want to apply theory and research about child development to interactions with infants, children, and adolescents in many settings. The chronological approach allows students to integrate knowledge about the different facets of physical, cognitive, and social-emotional growth to bring about an understanding of the whole child at each age. The coverage and pedagogical features in this book have been conceived and carefully executed to help students discover the excitement of studying child development and to equip them with tools they can use long after they take this class.

Philosophical Approach

Beyond giving students a solid understanding of child development, we incorporate principles in this book that help build lifelong learning skills. They include:

An Emphasis on Learning How to Learn

Long after they leave the classroom, students who interact with children and adolescents will need to find information to answer questions that arise. We want to encourage students' independent pursuit of knowledge about child development so we provide them with tools that will help them do that. They are introduced to the use of databases such as PsycINFO and learn to evaluate Internet sources to identify legitimate, research-based sources of information.

Critical Thinking Skills

The media in all of its forms is filled with information about children and their development. When students encounter this information, they need to critically evaluate the content of what they find. In Chapter 1, we talk about how to be a good consumer of information on development and lead students through a critical evaluation of a website. In addition, the true/false questions that appear throughout each chapter continuously challenge students to reflect on what they believe about children and to evaluate the sources of those beliefs. The instructor teaching site and student study site provide peer-reviewed research articles that students can explore independently to add to their understanding of important topics. This ability to critically evaluate ideas about children and their development will be beneficial to students who plan to go on for graduate study, those who will work professionally with

children and families, those who will advocate on behalf of children, and those who will use these ideas when caring for their own children.

A Focus on What Constitutes Evidence

We help students realize that although there is a place for “what I think” and for individual examples, the strength of a social science rests on marshaling convincing evidence within an agreed framework. Basic concepts about research and the scientific method are presented in Chapter 2, but are reinforced throughout the book.

Our philosophical approach is reflected in the pedagogical features that make this text a unique and powerful educational tool.

Pedagogical Features

Features intended to engage students are often included in textbooks as “add-ons,” but our active learning philosophy is at the heart of the pedagogy provided throughout this book. To this end, Active Learning activities do not appear in “boxes,” which we believe students often skip or ignore. Rather they are an integral part of the text itself. The chapter narrative leads directly into the Active Learning feature, and the feature smoothly transitions back into the narrative at its end. As educators, we know that students must *act* on the material presented in a course to make it their own. We all try to do this in a number of ways in our classrooms, but for the student, reading a textbook is a solitary and often passive process. To help guard against this passivity, our unique pedagogical features are designed to capture and hold students’ interest and turn reading into an active process.

Challenging Misconceptions: Test Your Knowledge

One of the challenges in teaching a child development course is to help students give up some of the intuitive ideas or simplistic thinking they have about the topic. Many students enter courses on child and adolescent development confident that they already know most of what they need to know about development and that this is “all just common sense,” but experienced instructors know that some of the most important information in their courses is, in fact, counterintuitive. Unfortunately, students’ long-held ideas and beliefs are often quite difficult to change, and students can complete a course in child development with their misconceptions intact. It is our intention to pique student interest in these topics by challenging their assumptions. We believe that the most effective way to dislodge misconceptions is to challenge them directly. To do that, each chapter begins with a true/false quiz that contains interesting and provocative questions, many of which reflect common misconceptions. Students can immediately check whether their answers are correct by using the key at the bottom of each quiz. Unexpected or surprising answers to these questions draw the students into the chapter where they will find the questions in the margin of the chapter and information related to the topic of the questions highlighted in the text. The initial question plants a seed that is reinforced when they again read about the topic in the context of the chapter.

Active Learning

A variety of learning activities in the text complement and enhance the ideas presented in each chapter. Activities might ask students: (a) to reflect on their own experiences while growing up (and perhaps compare those experiences to the experiences of classmates), (b) to immediately test their understanding of a concept, (c) to conduct an observation or interview related to text material, (d) to carry out a simple firsthand experience and reflect on what they’ve learned from it or to watch a SAGE-created video that illustrates the activity, or (e) to seek out information that goes beyond the text through the use of library resources or the Internet. Each activity is designed to consolidate student learning through personal experiences that illustrate the ideas presented in the book.

Journey of Research

It is not unusual for students in child and adolescent development courses to expect that by the end of the semester, they will have simple answers to a number of very complex questions. Of course we can seldom provide these simple answers. Instead, we need to help students understand that the science of child development is an ongoing endeavor and that we continue to build and add to our understanding each day. Although it is important that students learn about our current best knowledge, this information is more meaningful when students understand it in the context of our evolving ideas about a given topic. To help students better understand this material, we keep the focus of the text on the current state of knowledge and use the Journey of Research feature to provide the historical contextual information on the topic. This helps students understand that what they learn today in their class may be information that changes—sometimes substantially—in the future as our body of knowledge grows. This is, after all, how the scientific process works.

Learning Questions and Self-Testing Review

There is a growing body of evidence that the best way for students to retain the information they are learning and to transfer that knowledge to new situations is by testing their understanding for themselves. Other study approaches such as rereading, highlighting, and even summarizing have not been found to be as effective as self-testing. On the student webpage that accompanies this text, we provide chapter quizzes as well as flash cards for students to test themselves. However, we believe it also is important to provide this opportunity within the book. For this reason, we begin each chapter with a set of Learning Questions that help guide students as they read. These Learning Questions then appear in the summary at the end of each chapter where students can use them to test their recall of what they have learned. In addition, we provide two types of questions at the end of each section within the chapters in a feature called Check Your Understanding. *Knowledge questions* help students review the information they are learning. *Critical thinking* questions push students beyond the basic information to apply and integrate ideas. Answering these questions will promote greater understanding and retention of what they are learning and increase the likelihood that they will be able to apply this knowledge in useful ways.

Graphics, Artwork, and Videos

Because many individuals learn best when there is a visual component to instruction and because child development is a field rich in imagery, each chapter contains photos, graphics, and links to videos that illustrate important concepts in a memorable way. Many of the photos in the text include questions embedded in their captions that prompt the student to think further about the topic. Some important concepts are further illustrated through videos developed by SAGE that show children in natural and experimental settings, teacher commentary, and college students responding to some of the true/false questions with follow-up discussion by the authors. These videos are found in the interactive eBook.

Key Topics

Neuroscience

To reflect the burgeoning interest in the field of neuroscience and its implications for child development, we have included new and updated information on brain function for each stage of development throughout the book. This information is presented in a way that makes it accessible to the student of child development who may not have a strong background in biology.

Examples of topics in the area of neuroscience include

- Plasticity of the brain and how the brain is shaped by an individual's experiences
- Early brain development and autism spectrum disorder

- The role of brain development in emotion regulation during early childhood
- Neurological functioning and anxiety in middle childhood
- Neuroscience and intelligence
- The vulnerability of the adolescent brain to neurotoxins

Diversity and Culture

Because an understanding of diversity and culture is essential for anyone working in the field of child development, these topics are integrated into each chapter to give the broader picture of how each aspect of development is influenced by the many different circumstances that constitute children's lives around the world.

Examples of topics concerning diversity and culture include

- Cultural differences in birthing practices and the transition to parenthood
- The effects of poverty and homelessness
- World-wide sex-trafficking of children
- Culture, identity, and bilingualism
- Cultural and religious differences in acceptance of gender-atypical adolescents
- International differences in attitudes and policies regarding adolescent sexuality

Developmental Psychopathology

Coverage of topics related to psychopathology or developmental differences gives students a better understanding of the continuum of human behavior. Rather than relegating these topics to a separate, stand-alone chapter or to feature boxes, we include them within the chapters where they give students a deeper understanding of how these differences relate to the full range of development of all children.

Examples of topics in developmental psychopathology include

- Reactive attachment disorder
- Effects of child maltreatment and trauma
- Specific learning disorders
- Disruptive mood dysregulation disorder
- Depression and suicide in adolescence
- Resilience

What's New in the Second Edition

- Critical Thinking exercises at the end of each section encourage students to think more deeply about what they have read.
- The Test Your Knowledge feature has been enhanced with videos of students answering some of the true/false questions, with follow-up commentary by the authors.
- The chapters on cognitive development at each age level have been reorganized and expanded to provide more continuity in coverage of the basic cognitive processes: attention, memory, executive function, and social cognition.
- Information relating to cultural concepts such as individualism and collectivism has been refined to reflect the most recent research in this area.
- The continuity between chapters and topics has been enhanced through call-outs to information from previous chapters or alerts for information in upcoming chapters.

- More tables are provided to give students a summary of information detailed in the text.
- Almost 1,100 new references have been added.

Numerous topics have been added, updated, or expanded throughout the book. The following list highlights some of the most important ones, but there are many others in each chapter.

Chapter 1. Issues and Themes in Child Development

- A new section on *Getting the Most From Your Textbook* introduces students to the pedagogical features they will find throughout the book and provides advice on how to use them.
- New topics include positive psychology, intersectionality, and emerging adulthood as a life stage.
- The WIC program is presented as an example of social policy in action.
- New or expanded discussion of cultural issues includes cultural differences in parenting and current thinking about the concepts of individualism and collectivism.

Chapter 2. Theory and Research in Development

- New Journey of Research: The Case of Henrietta Lacks.
- New or updated topics include the use of augmented reality for the treatment of phobias, the importance of replication and effect sizes in understanding research results, and information on the ethical treatment of children in research.
- New examples are provided for the modern application of operant conditioning, Piagetian theory, and dynamic systems theory.
- New table compares Erikson's stages of development with Nsamenang's stages based on African cultural norms.

Chapter 3. Nature Through Nurture: Genes and Environment

- New Active Learning on concordance rates in genetic research.
- New topics include genome-wide association tests, the CRISPR approach to gene editing, genetic screening of newborns, and the association between racial identity and genetic inheritance.
- New or updated information is provided on genetic tests and gene therapy, the role of the environment in moderating the effects of genes on intelligence and pubertal timing, and the study of identical twins reared apart.

Chapter 4. Prenatal Development, the Newborn, and the Transition to Parenthood

- New topics include the prenatal effects of environmental pollutants (including endocrine disruptors) and the role of exercise while pregnant.
- New or updated information is provided on the influence of prenatal hormones on gender differences in the brain, the effect of prenatal maternal smoking on child obesity and susceptibility to asthma, the effects of opiates on prenatal development, co-sleeping with infants, and the effect of hormonal changes on the brains of new parents.

- New or expanded discussion of cultural issues includes racial, ethnic, and socioeconomic differences in prenatal care and maternal mortality; cultural differences in birthing practices and the transition to parenthood; and a cross-country comparison of differences in paid parental leave.

Chapter 5. Physical Development in Infancy and Toddlerhood

- New or updated information is provided on the development of brain structure and function, the role of mirror neurons, the impact of electronic media on the sleep habits of infants and toddlers, and the threat of outbreaks of communicable diseases in U.S. because of vaccine refusal.
- Information on autism spectrum disorder has been updated to reflect changes in *DSM-5*.
- Information on breastfeeding has been updated and summarized in a new table, and a discussion of the backlash against the heavy promotion of breastfeeding has been added.
- New or expanded discussion of cultural issues includes cultural variations in motor milestones and sleep patterns of infants.

Chapter 6. Cognitive Development in Infancy and Toddlerhood

- Two new Active Learning features, one on how the infant brain uses data crunching to learn language, and one on the effect of background TV on infants' social interactions.
- New topics include moral knowledge and social cognition in infancy.
- New, expanded, or updated information is provided on the theory of core knowledge, aspects of executive functioning, the information processing approach to studying infant intelligence, media use in infancy and toddlerhood, and the prevalence of child poverty.
- New or expanded discussion of cultural issues includes infant memory and child-directed speech.

Chapter 7. Social and Emotional Development in Infancy and Toddlerhood

- New or updated information is provided on the role of early brain development in emotional regulation; emotion coaching and emotion dismissing parenting styles; the biology of attachment, including how infants in the different attachment categories respond to stress; and updated statistics on labor force participation by mothers of young children.
- New or expanded discussion of cultural issues includes how parents transmit cultural expectations to their infants, cultural differences in what is considered adaptive attachment, examples of what constitutes a family, and a cross-country comparison of availability of early child care.

Chapter 8. Physical Development in Early Childhood

- New Active Learning feature on living with a severe allergy.
- New topic: skin cancer and sunscreen.
- New or updated information is provided on Hispanic children's attitudes about weight, the "old friends hypothesis" as counterpoint to the hygiene hypothesis of

allergies, possible causes of autism spectrum disorders, and the consequences of child maltreatment, including psychological and emotional abuse.

- New table: Healthy sexual development in children.
- Updated statistics provided on the incidence of autism spectrum disorder, asthma, childhood cancer, fatal injuries, ethnic differences in rates of child maltreatment, and childhood obesity.

Chapter 9. Cognitive Development in Early Childhood

- New topics include Bruner's concept of scaffolding with a new example, lying and theory of mind, Montessori and Reggio Emilia preschool programs, effective prereading programs for at-risk children, and research on whether educational apps help young children learn.
- New or updated information is provided on how teachers can foster executive function, six types of understanding about what constitutes theory of mind, the impact of play on motivation for learning and executive function, and the impact of income supplementation on children in low income families.
- New or expanded discussion of cultural issues includes the development of theory of mind, play, the use of dialogic reading, writing patterns in different languages, ages when children start school, and the effectiveness of *Sesame Street* in different countries.

Chapter 10. Social and Emotional Development in Early Childhood

- New topics include emotional intelligence and the RULER skills, gender self-socialization, transgender identity, and the social domain theory of moral development.
- New or updated information is provided on media, self-esteem and social values; how parents can help children cope with trauma; and the relation between secure attachment and effortful control.
- New or expanded discussion of cultural issues includes guilt and shame in different cultures, the effect of cultural values in shaping children's autobiographical memory, parenting practices and children's delay of gratification, and the effect of different parenting styles in different ethnic groups.

Chapter 11. Physical Development in Middle Childhood

- New Active Learning features on finding sources of support for families of children with chronic illnesses and on stress and coping.
- New topics include human growth hormones and growth hormone deficiency, eating disorders in middle childhood, the effects of childhood chronic illness on the family system, the impact of Adverse Childhood Experiences (ACEs), and neurodiversity.
- New or updated information is provided on body image and weight concerns in middle childhood, childhood sexual abuse, Comprehensive School Physical Activity Programs, and the risks of concussion.

Chapter 12. Cognitive Development in Middle Childhood

- New Active Learning feature on academic mindsets.
- New topics include motivational resilience and vulnerability, and fixed versus growth mindset about intelligence.
- New or updated information is provided on executive function in middle childhood, bilingualism and metalinguistic skills, the Wechsler Intelligence Scale for

Children, intrinsic and extrinsic motivation, neurological and genetic aspects of intelligence, grade retention, and teacher expectancy effects.

- New or expanded discussion of cultural issues includes culture, identity and bilingualism, and the use of ability grouping in U.S. schools and around the world.

Chapter 13. Social and Emotional Development in Middle Childhood

- New Active Learning feature on diagramming the student's own family.
- New topics include social anxiety disorder, media violence and aggression, the family as a system, and "free range kids" and self-care.
- New or updated information is provided on effects of positive racial and ethnic identity, person-based and process-based praise and self-esteem, the muscular ideal for boys, the stresses and strengths of families with gay or lesbian parents, the negative outcomes both of being bullied and of being a bully, and the process approach to resilience.
- New or expanded discussion of cultural issues includes self-concept and self-esteem in different cultural contexts and cross-cultural comparisons of parenting styles.

Chapter 14. Physical Development in Adolescence

- New Active Learning feature on keeping a sleep diary.
- New or updated information is provided on the vulnerability of the adolescent brain to neurotoxins, including alcohol and drugs; the concept of fluidity in sexual preference; cultural and religious differences in acceptance of LGBT adolescents; and opiates and addiction.
- New or expanded discussion of cultural issues includes global acceptance of homosexuality and international teen pregnancy and birthrates.

Chapter 15. Cognitive Development in Adolescence

- New Active Learning feature on metacognition.
- New or updated information is provided on minority students and stereotype threat; social media and the imaginary audience; multitasking with electronic media, including texting and driving; violent video games and moral development; use of blogging to teach writing skills; and the effects of paid employment for teens from different socioeconomic backgrounds.

Chapter 16. Social and Emotional Development in Adolescence

- New topics include identity development among transgender, transsexual, and gender-nonconforming adolescents; gender dysphoria; management of online identities; and narcissism and selfies.
- New or updated information is provided on microaggressions targeting minority youth, attachment to parents during adolescence, the influence of media on gender norms and expectations, cyberbullying, school violence, and emerging adulthood.
- New or expanded discussion of cultural issues includes the development of a strong, positive ethnic identity; identity foreclosure in traditional cultures; and cross-cultural research on age and gender differences in the development of self-esteem.

Ancillaries

Original Video

Original video includes videos created by SAGE specifically for this book, featuring real-life demonstrations of some of the Active Learning exercises that appear throughout the text. Additional original videos created in several childcare settings illustrate important concepts from the book. Finally, videos of college students answering some of the true/false questions that appear next to their highlighted answer in the text are followed by further explanation and commentary by the authors. These are available in the interactive eBook.



SAGE edge offers a robust online environment featuring an impressive array of tools and resources for review, study, and further exploration, keeping both instructors and students on the cutting edge of teaching and learning. Go to edge.sagepub.com/levinechrono2e to access the companion site.

SAGE edge for Instructors

SAGE edge for Instructors supports teaching by making it easy to integrate quality content and create a rich learning environment for students. This password-protected site gives instructors access to a full complement of resources to support and enhance their child development course. The following chapter-specific assets are available on the teaching site:

- A **Test Bank** provides a diverse range of questions as well as the opportunity to edit any question and/or insert personalized questions to effectively assess students' progress and understanding.
- **Sample course syllabi** for semester and quarter courses provide suggested models for structuring a course.
- Editable, chapter-specific **PowerPoint slides** offer complete flexibility for creating a multimedia presentation for the course.
- **Multimedia content** includes audio and video resources that appeal to students with different learning styles.
- EXCLUSIVE! Access to full-text **SAGE journal articles** that have been carefully selected to support and expand on the concepts presented in each chapter to encourage students to think critically.
- **Lecture notes** summarize key concepts by chapter to assist in the preparation for lectures and class discussions.
- **Course Management System integration** makes it easy for student test results and graded assignments to flow into instructor gradebooks.

SAGE edge for Students

SAGE edge for Students provides a personalized approach to help students reach their coursework goals in an easy-to-use learning environment. To maximize students' understanding of child development and promote critical thinking and active learning, we have provided the following chapter-specific student resources on the open-access portion of edge.sagepub.com/levinechrono2e:

- Mobile-friendly **eFlashcards** strengthen understanding of key terms and concepts.
- Mobile-friendly practice **quizzes** allow for independent assessment by students of their mastery of course material.

- **Learning questions** reinforce the most important material.
- **Multimedia content** includes audio and video resources that appeal to students with different learning styles.
- **EXCLUSIVE!** Access to full-text **SAGE journal articles** that have been carefully selected to support and expand on the concepts presented in each chapter.

Acknowledgments

Our team at SAGE provided an enormous amount of support for this book. We want to thank our acquisitions editor, Lara Parra, for her unfailing support and encouragement. We are grateful for the time and expertise of our developmental editors Cheri Dellelo and Emma Newsom. We want to thank Tracy Buyan and Deanna Noga for their careful work on the production of this book, and our permissions editor Sheri Gilbert and editorial assistant Zachary Valladon for their contributions.

We also want to thank all the children, parents, and staff at the California State University at Northridge and the students at Pasadena City College who participated in the filming of videos that accompany the text. We continue to be grateful to our students from whom we have learned so much.

Thanks also go to the following individuals who reviewed the manuscript:

First Edition

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Melissa M. Burnham, University of Nevada, Reno	Sonya Kitsko, Robert Morris University
Dixie R. Crase, University of Memphis	Elizabeth Levin, Laurentian University
Sharon DeLeon, Fullerton College	Micheline Malow, Manhattanville College
Gayle J. Dilling, Olympic College	Rebecca Martin, South Dakota State University
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Debra K. Stein, Widener College

Julia C.Y. Tang, Mount Saint Mary's University, Los Angeles

Joshua L. Williams, Armstrong State University

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As always, we are grateful to our families and friends for their continuing support, as well as their ideas and stories that have contributed to the creation of this book.

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Developmental Psychology, the *Journal of Applied Developmental Psychology*, *Infant Mental Health Journal*, *Infant and Child Development*, *Computers and Education*, *CyberPsychology, Behavior, and Social Networking*, and the *International Journal of Cyber Behavior, Psychology and Learning*, and as chapters in *The Wiley Handbook of Psychology, Technology and Society*, and the *Encyclopedia of Cyberpsychology*.

Dr. Levine has been very active in promoting excellence in college teaching. She was involved in the creation of the Center for Teaching Excellence at Central Connecticut State University and served on the board of the Connecticut Consortium to Enhance Learning and Teaching. She created numerous programs for faculty both at her university and at regional and national conferences. Her work on the scholarship of teaching and learning can be found in *New Directions for Teaching and Learning*, *College Teaching* and the *International Journal for the Scholarship of Teaching and Learning*.



Joyce Munsch received her PhD in human development and family studies from Cornell University. She was a faculty member in human development and family studies at Texas Tech University for 14 years, where she also served as associate dean for research in the College of Human Sciences for 2 years. In 2002, Dr. Munsch came to California State University at Northridge as the founding chair and professor in the Department of Child and Adolescent Development and now is an emeritus professor in that Department.

Dr. Munsch's research focused on adolescent stress and coping and social network research. Her work has been published in the *Journal of School Psychology*, *Adolescence*, the *Journal of Early Adolescence*, the *Journal of Research on Adolescence*, and the *American Journal of Orthopsychiatry*. Throughout her career, Dr. Munsch administered grants that supported community-based programs. She was the codirector of the Early Head Start program at Texas Tech University and co-principal investigator for three Texas Youth Commission (Department of Juvenile Justice) grants. At Cal State Northridge, she administered the Jumpstart program for 10 years. She also worked with the Los Angeles County Early Childhood Education Workforce Consortium, a collaborative project dedicated to preparing a well-qualified ECE workforce for the Los Angeles community. Her commitment to community service learning was recognized in 2005 when she was awarded the CSUN Visionary Community Service Learning Award. At Texas Tech, she was the College of Human Sciences nominee for the Hemphill-Wells New Professor Excellence in Teaching Award, the Barnie E. Rushing Jr. Faculty Distinguished Research Award, the El Paso Energy Foundation Faculty Achievement Award, and the President's Excellence in Teaching Award, and she received the Kathryn Burleson Faculty Service Award and the College of Human Sciences Outstanding Researcher Award.

PART I

Understanding Development

Why and How We Study
Children and Adolescents

CHAPTER 1

Issues and Themes in Child Development

CHAPTER 2

Theory and Research in Development





Rob Levine via Getty Images

1

Issues and Themes in Child Development

Learning Questions

- 1.1** Who needs to have a good understanding of child development and why?
- 1.2** What are the domains of child development and some recurring issues in the field?
- 1.3** What are the contexts for child development?
- 1.4** How can you be a smart consumer of information about development?

Take a moment to think about why you want to learn about children, adolescents, and their development. You may enjoy the interactions you have with children and want to understand them better, or your career goal may involve working with children or adolescents. Perhaps you want to better understand yourself or those you know by exploring how childhood has affected who you have become. Your interest may be more scientific, with a focus on understanding the research that explains the processes of development. Your particular goal will influence how you approach the information in this book.

The information and activities in this book have been designed to stimulate your thinking in all these ways. We want to share with you the excitement we feel about the topic of child and adolescent development and to pique your curiosity so that you will want to learn even more about it. By the time you finish reading this book, you will have a solid foundation in a number of important topics related to development. It is our hope that this will motivate you to continue learning about children and their development long after you have completed this course.

In this first chapter, we introduce some of the basic concepts of child and adolescent development. We first look at why people study children and some ways they use knowledge about children to promote positive development. If you are curious about how you might use this knowledge in a future career, an Active Learning feature leads you through the process of researching careers that require a good understanding of child and adolescent development. We then discuss some basic themes related to how development occurs and introduce you to the different contexts that influence children's lives. Finally, we provide strategies and guidelines that will enable you to differentiate reliable information from other material you may encounter as you study child development.

Why Study Childhood?

Many people are interested in studying child development because the topic itself is fascinating and important. Some want information they will be able to use when they become parents. Many students want to be able to use the information in a future career

>> LQ 1.1 Who needs to have a good understanding of child development and why?



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Conscientiousness. What long-term outcomes might result from this child's willingness to work hard and cooperate with an adult?

as a professional who works with children or a policymaker who shapes social policy that affects children and families and some students want to become researchers to further the scientific understanding of children and how they grow and develop. These are all good reasons to study child development, and we explore them all in this chapter.

Understanding the Process of Development

One reason why students are interested in studying child development is to understand the role that infancy, childhood, and adolescence play in shaping who we become as adults. Researchers who study children as they develop over long periods of time have provided ample evidence that early traits, behaviors, and experiences are related to many adult outcomes. One well-known example of this is a study of gifted children begun by Lewis Terman in 1921 (Friedman & Martin, 2011). Many years later, others are still mining his data to answer questions about life span development. One finding is that those children who were rated high in the quality Terman called conscientiousness had many positive outcomes in adulthood, including living longer (Kern, Della Porta, & Friedman, 2014; Kern, Friedman, Martin, Reynolds, & Luong, 2009). How does earlier conscientiousness link with these later outcomes? The connection is partially explained by the fact that conscientious individuals were less likely to smoke and drink alcohol to excess, both of which are predictive of a shorter life span. Because the pathways between early personality characteristics and outcomes later in life are very complex, research continues to explore these connections to help us understand the process.

Saying that the earliest stages of development are important for later development and functioning does not necessarily mean they are any more important than later periods of development. Instead, development is seen as a process in which each stage lays a foundation for the stages that follow. An example of this principle comes from the research on competent parenting. Not surprisingly, receiving sensitive, competent parenting when you are an infant or young child is associated with being a sensitive, competent parent when you have your own children. However, the pathway to becoming a competent parent is also affected by social competence with peers during childhood and adolescence and later competence in romantic relationships during early adulthood (Raby et al., 2015). Although experiences early in life have consequences for functioning later in life, this research shows that experiences all along the path to adulthood contribute to an adult's psychological functioning.

Using Our Knowledge of Child Development

A second reason to study child development is to be able to use this information to improve the lives of children and adolescents. An understanding of how children think, feel, learn, and grow, as well as how they change and stay the same, is essential to fostering positive development. This understanding can help parents and family members, professionals who work with children and families, and people who create and carry out social policies and design programs that affect the well-being of children and their families.

Parents and Family Members

Having a good understanding of children's needs and abilities at each stage of development can help all parents provide the appropriate amount and type of support and stimulation to foster their children's growth and development. However, this knowledge is even more crucial for particular segments of the parent population. Teen parents are more likely than older parents to lack knowledge about what to expect from their children at different ages, to talk to and play less with their infants, and to use physical punishment to discipline their children (Mann, Pearl, & Behle, 2004).



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Careers in child development. Knowledge about child development is essential for people working in many different careers (including pediatricians, teachers, social workers, counselors, therapists, lawyers, and nurses). If you are interested in a career working with children, there are many opportunities available to you.

When teen parents learn about child development, their frustration decreases and they have more realistic expectations for their children, their ability to empathize with their child increases, and they better understand how to discipline their child without resorting to physical punishment. Programs designed to improve the quality of parenting among the weakest parents (and teen parents were included in this group) have resulted in more of their children graduating from high school, fewer having a child themselves by the age of 19, and fewer having a criminal conviction by age 19 (Reeves & Howard, 2013).

Child Development Professionals

You may be interested in studying child development because you see yourself in a future career that involves working with children and families. In different ways and at different levels, people in all the helping professions promote positive development for children and teens, engage in the identification and prevention of problems, and provide interventions when problems do occur.

Promoting the optimal development of children and adolescents is a primary goal of professionals who work in the field of education (especially classroom teachers, resource teachers, administrators, and counselors) and of mental health professionals, youth service workers, and representatives of community organizations who run programs for children. Community organizers, community psychologists, and outreach workers are a few of the professions that focus on preventing problems before they emerge. Child therapists and family therapists are two of the professionals who help families address existing problems. Social workers, psychologists, marriage and family therapists, and child psychiatrists are other professionals who provide various types of interventions to families. Knowledge of child development helps each of them find and use ways to support and encourage children and adolescents to reach their full potential.

We recognize that students today want to know where their education can eventually lead them and are hungry for information about future careers. If you are taking this course because you are considering working with children and families in the future, how much do you know about the career you are thinking about entering? You can assess your current knowledge about a career related to child development by completing **Active Learning: How Much Do You Know About Careers in Child Development?**

ACTIVE LEARNING

How Much Do You Know About Careers in Child Development?

If you are interested in a career that includes working with children, begin by completing the first column in the table below with what you currently know about the career you would like to enter when you finish your education. If you haven't settled on a career yet, simply choose one that currently holds some interest for you. Even if you feel you have very little information on a particular topic, take your best guess at every answer.

Next, use the *Occupational Outlook Handbook* (U.S. Bureau of Labor Statistics, 2017) to find current information on your career to complete the second column. You will find it on the Bureau of Labor Statistics website at www.bls.gov/ooh, and there also is likely a copy in your campus library. Select the career you are interested in from the list on the A–Z Index, or type the name of your career in the search box on the page. For each career, you will find this information:

- **What people in this career do**—duties and responsibilities.
- **Work environment**—where people in this career work and conditions affecting their employment.
- **How to become one**—the education and training required both for entry into the field and for advancement within this career. You will also find information about any certifications or licenses required to work in this profession and the skills and personal qualities required for success on the job.
- **Pay**—average salaries earned in this career.

- **Job outlook**—how many people are currently employed in this career and whether demand for this profession is expected to increase or decrease between 2016 and 2026.
- **Similar occupations**—additional information about careers related to the one you are researching. For instance, if you think you would like to be a child psychologist, here you will find that related careers include being a counselor, social worker, special education teacher, or recreation worker. If you click on any of these links, it will take you to the page in the *Occupational Outlook Handbook* that provides information about that alternative career.
- **More information**—links to professional organizations that support and advocate for people working in this career. The organization webpages you find here are rich sources of information about each career, and you should look at one or two of them before you finish exploring this page.

Although the *Handbook* lists hundreds of occupations, you won't find every conceivable job title. For instance, *child life specialist* and *early interventionist* are not yet in the *Handbook*, but you can find information about a related career to begin your search. For instance, child life specialists do work similar to what a counselor does, but they work in the specialized setting of a hospital, and their clients are children with chronic illnesses and life-threatening conditions and their families.

Name of the career you researched: _____

Does it appear in the *Occupational Outlook Handbook* (OOH)? _____Yes _____No

(If no, name the related career you researched): _____

TOPIC	YOUR CURRENT KNOWLEDGE	INFORMATION FROM THE OOH
Educational level required for entry into this career (for example, high school diploma, associate's degree, bachelor's degree, master's degree, PhD, or other advanced degree)		
Educational level required for advancement in this career		
Important day-to-day work responsibilities (that is, what you will do each day in this career)		
Work setting (for example, office, school, hospital), and how much travel is required (if any)		
Median annual earnings		
Demand (projected change in demand for this career between 2016 and 2026)		

How well informed were you about your potential future career? Another useful website if you are specifically interested in a career in the field of psychology is the American Psychological Association's site at www.apa.org. You can find

information on what psychologists do, the subfields in psychology, and the job outlook for these careers by clicking on Careers at the top of the page.

Policymakers

Most often we apply our understanding of child development directly to the work we do with children, but the well-being of children and families is also affected by the laws and programs that make up **social policy**. Research on child development can guide and inform the people who make these policies. For example, Walter Gilliam (2008), director of the Edward Zigler Center in Child Development and Social Policy at Yale University, found that preschool children in Connecticut were more than 3 times as likely to be expelled as children in Grades K-12. His research also showed that when a mental health consultant was available to help teachers develop ways to handle problem behaviors, far fewer children were expelled. Today, half of the states provide early childhood mental health consultation (Perry, 2014). Consider how many young children are being better served because of the research and advocacy of Dr. Gilliam.

Another example of social policy in action is the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), which provides supplemental food and nutrition education for low-income, nutritionally at-risk women, infants, and children up to age 5. Good nutrition during a woman's pregnancy helps ensure the healthy development of her baby, and good nutrition during early childhood is associated with a number of positive outcomes throughout a child's life. Although these outcomes are important, the WIC program cost almost \$6.2 billion in 2015 (U.S. Department of Agriculture, 2017b). When an expensive program such as this one is up for renewal, lawmakers look to experts in the field for research that can justify the expenditure.

Research on WIC has found that participation in the program is associated with a reduced risk of having a low-birth-weight or premature baby (Rossin-Slater, 2015). As you will learn in Chapter 4, both prematurity and low birth weight are associated with a number of negative developmental outcomes. The lifetime savings from the lower cost of medical care needed as a result of the increased birth weight of the children born to WIC participants means that the benefits of the program outweigh its cost (Rossin-Slater, 2015). Information such as this helps policymakers evaluate the effectiveness of social programs and make modifications to them, if necessary. **Active Learning: Social Policy Affecting Children and Adolescents** provides some additional information about the types of issues social policy organizations have focused on in recent years.



The Washington Post / Contributor via Getty Images

The Women, Infants, and Children Program (WIC). This pregnant woman can use vouchers from the WIC program at a farmers' market to help provide her with the nutritious diet that is essential for healthy prenatal development. Research that shows the effectiveness of such programs helps ensure their continued funding.



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Making social policy. Social policy that affects children and families is made at the highest levels of the federal government down to local school boards and neighborhood councils. Interested citizens also take part in the process when they write letters to elected officials, sign petitions, work for causes they support, and vote.

Social policy: Policies that are intended to promote the welfare of individuals in a society.

ACTIVE LEARNING

Social Policy Affecting Children and Adolescents

A number of organizations in the United States provide legislators and private citizens with information related to child development with the goal of helping bring about changes in social policy based on solid research. This activity will guide you to their websites to retrieve information that interests you.

The mission of the *Future of Children* (2017) is “to translate the best social science research about children and youth into information that is useful to policymakers, practitioners, grant-makers, advocates, the media, and students of public policy.” You will find the website at <https://futureofchildren.princeton.edu>. This organization publishes one journal issue and one policy brief each year, each devoted to a single topic. Recent topics have included *Children and Climate Change*, *Marriage and Child Wellbeing Revisited*, *Policies to Promote Child Health*, and *Starting Early: Education from Prekindergarten to Third Grade*.

The Society for Research in Child Development is a professional organization that periodically produces policy briefs on topics related to child development. Go to its home page at <https://www.srcd.org> and use the dropdown menu under “Publications” to select “Social Policy Report.” On that page, you will find a list of their recent reports, which have included *Supporting Parents: How Six Decades of Parenting Research Can Inform Policy and Best Practice*; *Corporal Punishment in U.S. Public Schools*; and *Development of Boys and Young Men of Color*.

The mission of *The Annie E. Casey Foundation* (2017) is to “advance research and solutions to overcome the barriers to success, help communities demonstrate what works and influence decision makers to invest in strategies based on solid evidence.” From its home page at www.aecf.org, click on one of the headings (Kids, Families, Communities, or Leaders) and it will take you to a page that lists recent reports, blogs, and policy statements related to that topic.

There is a wealth of information at each site. You can visit at least one site now and identify a topic or two that interest you, review the information available, and make a mental note to visit these sites again when you are looking for up-to-date information for a future course paper.

You can also use one of the most widely utilized resources from the Annie E. Casey Foundation to create a state, county, or city report on a topic that interests you. The Foundation’s annual *Kids Count* report provides up-to-date statistics on children’s health, education, and well-being. From the Kids Count Data Center (<https://datacenter.kidscount.org/>), you can select your state, and on the next page you can click on “create a custom report.” Proceed by selecting a level for your report and then choosing the specific information that interests you. Note that there are several hundred indicators of child well-being, so if you don’t limit your research by your choices, you will receive a very informative but lengthy report.

As citizens, we bear a responsibility to vote and to speak out for the well-being of our children. The more we understand about their needs, the more effective we will be in advocating on their behalf and supporting the policies we believe will best serve them.

CHECK YOUR UNDERSTANDING

Knowledge Questions

1. What are some reasons for studying child development?
2. Who is likely to benefit from being knowledgeable about child development?
3. What is the relationship between social policy and research on child development?

Critical Thinking

What do you think would be the most effective ways for you, as a student, to impact social policy affecting children and families?

>> LQ 1.2 What are the domains of child development and some recurring issues in the field?

Understanding How Development Happens

We have a lot of interesting ground to cover, and if you are to get a solid foundation in understanding child development it’s good to have a plan that breaks this journey down into manageable pieces. To do that, we have organized information in this book by the ages and stages of life, then further divide information into the different domains of development: physical, cognitive, and social-emotional. There also have been a number of topics that have been debated in the field of child development over the years. We briefly introduce you to several of these issues here and revisit them at various points throughout the book.

Ages and Stages

We use the terms *infancy*, *toddlerhood*, *early childhood*, *middle childhood*, and *adolescence* to identify broad periods of development that have behaviors or characteristics that set that stage apart from the other stages. During *infancy* (the first year of life), children are totally dependent on their caregivers for their physical care, but they already can use all their senses to begin exploring their world. During this period, they begin developing the motor skills they will need to explore it further. They also form a strong emotional attachment to their caregivers and lay the foundation for learning language. *Toddlers* (ages 1–3) continue developing their motor skills and can more actively explore their physical world. Language develops at an astonishing rate during this period, and toddlers begin showing independence and autonomy from their caregivers as they learn to do things for themselves. In *early childhood* (ages 3–6), children learn about the physical and social world through play. As peers become more important, young children learn the skills necessary to understand how other people think and feel. During *middle childhood* (ages 6–12), children develop the intellectual ability to think in a more ordered and structured way and school becomes a major context for development. At this stage, children begin developing a clearer sense of self and an understanding of who they are and what makes them unique. Play and peers are essential parts of their lives. The physical changes associated with puberty mark the transition from childhood into *adolescence* (ages 12–18). As their bodies undergo the physical changes that move them toward adulthood, adolescents are able to think and reason at a more abstract level and they develop a stronger sense of who they are and who they want to become. Family remains important to them, but peer relationships take on a greater importance than they had before. Although this book covers the stages from infancy through adolescence, we briefly describe a stage that begins in late adolescence: the stage of *emerging adulthood* (ages 18–25). This stage describes the period of transition between adolescence and adulthood. During this time, many young people feel they are no longer adolescents but also recognize they are not yet ready to fully assume the role of an adult in their culture (Arnett, 2015). It represents a time to explore the possibilities open to them in the realms of education, work, and relationships before committing to choices that will shape their adulthood.

Domains of Development

When studying development, we distinguish between three basic aspects or domains of development: physical, cognitive, and social-emotional. **Physical development** includes the biological changes that occur in the body, including changes in size and strength, as well as the integration of sensory and motor activities. Neurological, or brain, development has become a major area for research in physical development. **Cognitive development** includes changes in the way we think, understand, and reason about the world. It includes the accumulation of knowledge as well as the way we use that information for problem solving and decision making. **Social-emotional development** includes all the ways we learn to connect to other individuals, understand our emotions and the emotions of others, interact effectively with others, and express and regulate our emotions.

Although it is useful to make distinctions between these domains, it is important to understand that they continually interact with each other. For instance, during puberty adolescents undergo dramatic physical changes over a short period of time, but these changes also affect social development. As adolescents grow to look more like adults and less like children, adults begin to treat them more like adults, giving them new responsibility and expecting greater maturity from them. These opportunities, in turn, contribute to the cognitive development of adolescents as they learn from their new experiences.

Physical development:

Biological changes that occur in the body and brain, including changes in size and strength and the integration of sensory and motor activities.

Cognitive development:

Changes in the way children think, understand, and reason as they grow older.

Social-emotional

development: Age-related changes in the ways children connect to other individuals and express and understand emotions.

Themes in the Field of Child Development

We all have our own ideas about children. You brought some with you when you entered this class. Stop for a few minutes and think of a couple of sentences or phrases that capture what you believe to be true about how child development occurs. Do you believe that “if you spare the rod, you will spoil the child”? Or that “as the twig is bent, so grows the tree”? Do you think that children are like “little sponges”? Or that they grow in “leaps and bounds”? Each of these bits of folk wisdom touches on an issue that

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Domains of development. When we study development, we look at changes in the physical, cognitive, and social-emotional development of children and adolescents.

has been debated within the field of child development. Here we briefly review some of the reoccurring debates and controversies that have become themes in our field.

Nature and Nurture

Nature: The influence of genetic inheritance on development.

Nurture: The influence of learning and the environment on development.

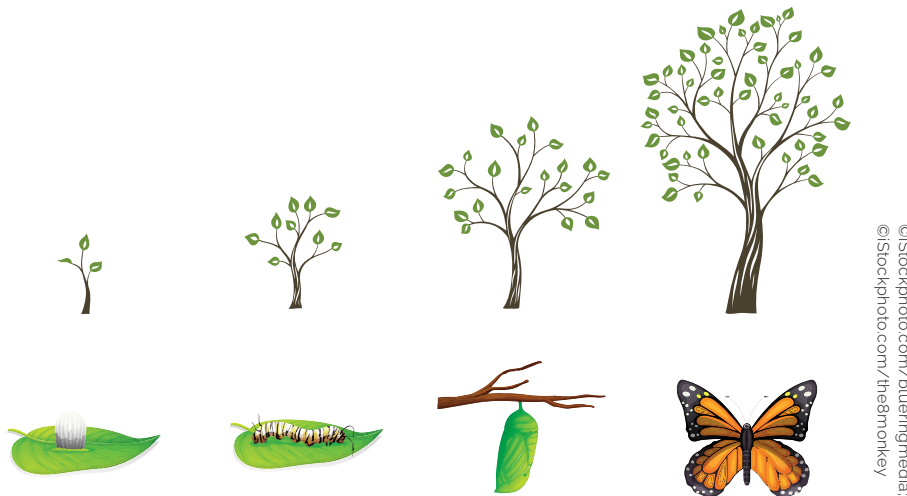
Throughout history the question of whether our behavior, thoughts, and feelings result from **nature**, our genetic inheritance, or from **nurture**, the influence of the environment, has shaped our understanding of why we act certain ways and how we can influence human behavior. The controversy was originally described as nature *versus* nurture. For example, let's say you are an aggressive (or shy, or outgoing . . .) person. Researchers wanted to find out whether you became aggressive because you were “born that way,” with your genes determining the outcome, or whether you learned to be aggressive because of what you saw or experienced in your environment. People initially argued for one side or the other, but it became clear that any developmental outcome is an interaction of both.

Asking whether behavior is due to nature or to nurture is similar to asking whether your car needs an engine or wheels. You aren't going anywhere unless you have both, and they are going to have to work together if you are ever going to reach your destination. The field of *epigenetics* has made us aware that what counts is not just what genes you *have*, but also what your genes are *doing*, and what they are doing is influenced by the environment you are in (Nesterak, 2015). We have left behind the era of “nature *versus* nurture” and entered the era of “nature *through* nurture” in which many genes, particularly those related to traits and behaviors, are expressed only through a process of constant interaction with their environment (Meaney, 2010; Stiles, 2009). We discuss these ideas further in Chapter 3.

Continuous Versus Discontinuous Development

Is development a series of gradual steps that modify behavior bit by bit, or does it proceed in leaps and bounds? In Chapter 2 and throughout the rest of the book, you will

FIGURE 1.1

Quantitative change and qualitative change.

Some changes that occur as children grow are quantitative, as illustrated by the tree, which just gets bigger as it gets older. Other changes in children's growth are qualitative, as illustrated by this butterfly, which changes form at each stage of its development.

learn about some theories in the field of child development that describe development as a series of stages children move through, similar to the “leaps” described above. In these theories, each stage has characteristics that distinguish it from the stages that come before and after. Other theories, however, describe processes that change development in small increments.

One way to describe these two views of development is that continuous development represents quantitative change and discontinuous change represents qualitative change. **Quantitative changes** are changes in the amount or quantity of what you are measuring. For instance, as children grow they get taller (they add inches to their height), they learn more new words (the size of their vocabulary increases), and they acquire more factual knowledge (the amount of information in their knowledge base grows). However, some aspects of development are not just the accumulation of more inches or words. Instead, they are **qualitative changes** that alter the overall quality of a process or function, and the result is something altogether different. Walking is qualitatively different from crawling, and thinking about abstract concepts such as justice or fairness is qualitatively different from knowing something more concrete, such as the capitals of all 50 states. Typically, **stage theories** describe development in terms of qualitative or discontinuous change, while **incremental theories** describe development as occurring through quantitative or continuous changes. These two types of theories may look at the same aspect of development but describe the way it happens very differently. Both types of theories are described in Chapter 2.

Quantitative changes:

Changes in the amount or quantity of what you are measuring.

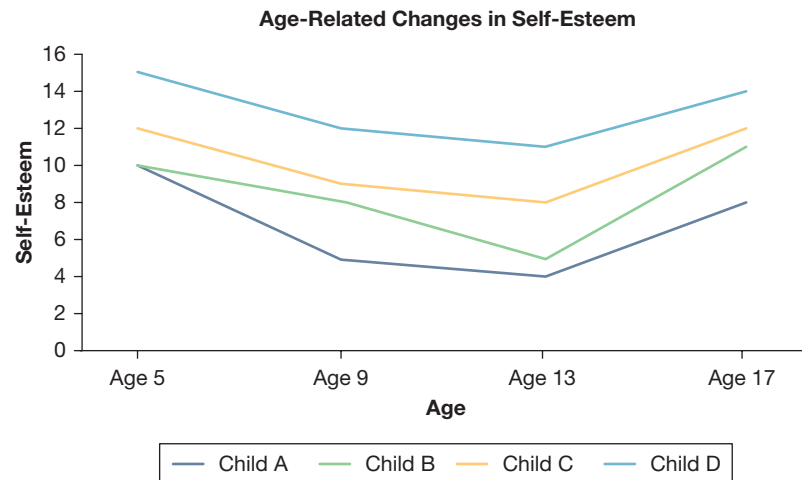
Qualitative changes: Changes in the overall nature of what you are examining.

Stage theories: Theories of development in which each stage in life is seen as qualitatively different from the ones that come before and after.

Incremental theories: Theories in which development is a result of continuous quantitative changes.

Stability Versus Change

How much do we change during the process of development? As we grow, develop, and mature, are we basically the same people we were at earlier ages, or do we reinvent ourselves along the way? We find evidence of both stability and change as we look at development. For instance, characteristics such as anxiety, depression (Lubke et al., 2016; Nivard et al., 2015), shyness (Karevold, Ystrom, Coplan, Sanson, & Mathiesen, 2012), and aggressiveness (Dennissen, Asendorpf, & van Aken, 2008) tend to be relatively stable over time. However, what does change is the specific way in which these characteristics are expressed. For example, young children hit, kick, or throw things when they are angry, but school-age children are more likely to express their aggression through teasing, taunting, and name-calling (Liu, Lewis, & Evans, 2013), and adolescents attack each other through social means (for example, spreading rumors or excluding others from social activities; Wang, Iannotti, & Luk, 2012).

FIGURE 1.2**Stability and change in self-esteem.**

This hypothetical example shows how 4 children might score on a measure of self-esteem at different ages. Their scores reflect typical changes in self-esteem: high in early childhood, declining in middle childhood and early adolescence, and rebounding in later adolescence. However, it also shows that the children tend to retain their relative rank compared to their peers. In other words, those with higher self-esteem early in development tend to be the children who have the highest self-esteem across these age-related changes.

As another example of stability and change in development, we know that self-esteem goes through predictable changes as children move through childhood and adolescence. As you will learn in Chapter 10, young children often have a very high opinion of themselves and their abilities, but this high self-esteem typically drops as they enter school, and their appraisal of their own abilities becomes more realistic. Early adolescence often brings another downturn, but self-esteem then rises steadily through the remainder of adolescence. If we focus on these age-related changes in self-esteem, we see considerable change. If, however, we shift our focus to the individual, we find that children, adolescents, and adults often maintain their relative position on many of the personality characteristics we measure. From this perspective, we see considerable stability in self-esteem because children who score near the top on a childhood measure of self-esteem tend to become adolescents and later adults who will continue to score high on other measures of self-esteem (Trzesniewski, Donnellan, & Robins, 2013). Figure 1.2 illustrates how there can be both change and stability in a single characteristic.

Individual Differences

Scientific research strives to identify general principles that describe average or typical patterns. We want to be able to make general statements about what usually happens. But you cannot spend much time observing children or adolescents without recognizing how different each one is from all the others. Our study of children needs to deal with both aspects of development—those aspects that are universal and shared by all or almost all members of a particular group, and those in which we differ from each other.

Throughout this book you will learn about general conclusions that are drawn from research. Although these are true as general statements, there also are numerous exceptions that give us insights we would not have otherwise. For example, children who grow up in poverty are at risk for a number of developmental and mental health problems, but some of these children manage to thrive in the face of great difficulty. In Chapter 13 we look at the factors that promote resilience in the face of a wide range of developmental risks and contribute to these individual differences.

While we can make a number of valid general statements about how development proceeds, the developmental pathway of any given individual is difficult to predict.

Different pathways can result in the *same* outcome, a process known as **equifinality** (*equi* = equal, *finality* = ends). For example, depression may result from biological and genetic processes, but it also can result from early traumatic experiences. However, it is also true that the *same* pathway can lead to *different* outcomes, known as **multifinality** (Cicchetti & Toth, 2009). For example, children who are victims of abuse can have many different long-term outcomes that can include depression but also resilience and healing. Individual characteristics of a child or an adolescent, including the child's temperament, sociability, and physical and intellectual ability are just some of the characteristics that may influence the specific outcome in any given situation.

Although we routinely pay attention to how personal characteristics such as gender, race, ethnicity, age, socioeconomic status and others impact an individual's development trajectory, the concept of **intersectionality** reminds us that these characteristics do not exist in isolation, but rather intersect with each other in complex ways that create unique developmental trajectories. Being a Black woman is a different experience from being a Black man, and being a Black woman is different from being a White woman. Both of these social identities—race and gender—can be a source of privilege or oppression. For example, while a Black woman may be harmed by both racism and sexism, a Black man may experience racism but also benefit from the gender inequity that may exist (Rosenthal, 2016). One of the goals of this theoretical framework is to use research to inform social policy and promote social justice and equity.

This understanding of individual differences also has changed the way we view behavioral and emotional disorders. In the field of **developmental psychopathology**, psychological disorders are now seen as distortions of normal developmental pathways (Cicchetti, 2016). Accordingly, in this book we include these disorders in our discussions of typical development. For example, language disorders appear with the discussion of typical language development, and attention deficit/hyperactivity disorder appears in the section in which we describe the typical development of attention. Thinking about atypical development this way may help reduce the stigma associated with mental disorders because it helps us see them as individual differences in development rather than simply as illnesses.

The Role of the Child in Development

Are you the person you are today because you *chose* to be that person, or did someone else *make* you who you are? How you think about that question pretty much sums up the issue of an active child versus a passive one. Some theories presume that it is the environment that shapes the development of the child. The clearest example of this way of thinking is called *learning theory* or *behaviorism*. As you will see in Chapter 2, this approach looks at the way that systematic use of rewards and punishment affects the likelihood that a child will—or won't—behave in certain ways. You may agree with this point of view if you think children are like lumps of clay that parents shape into the type of children they want. Other theories in child development give children a much more active role in shaping their own development. For example, Jean Piaget's theory of cognitive development, discussed in Chapter 2, is based on the idea that children actively explore their environment and, in the process, construct their own ideas about how the world works.

As with some of the other issues we have already discussed, maybe the answer to this issue isn't one or the other, but rather some combination of both. The concept of **niche picking** (Scarr & McCartney, 1983) suggests that people actively seek out environments that are a good fit with their genetic makeup. In this way, children actively shape their experiences by choosing environments that, in turn, enhance or inhibit the characteristics that initially attracted the child to that environment. And, while children don't choose the family, the neighborhood, or culture into which they are born, each of these environments significantly impacts and shapes their development. Later in this chapter, we describe in more detail the important roles specific contexts have on development.



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Individual differences.

Characteristics of individual children, such as age, gender, or ethnic background, can affect the developmental process, so outcomes that apply to one child will not necessarily apply to another. This means we must always be mindful of individual differences when we reach our conclusions.

Equifinality: The principle by which different developmental pathways may result in the same outcome.

Multifinality: The principle by which the same pathway may lead to different developmental outcomes.

Intersectionality: A theoretical framework that examines the effects of the overlap of social identities such as race, gender, sexuality, and socioeconomic status on development.

Developmental psychopathology: An approach that sees mental and behavioral problems as distortions of normal developmental processes rather than as illnesses.

Niche picking: The process by which people express their genetic tendencies by finding environments that match and enhance those tendencies.

Positive Psychology

For many years, research in the field of child development came from a perspective that has been called a *disease model* (Seligman & Csikszentmihalyi, 2000). The primary focus was on understanding the cause of problems in people's lives and finding ways to restore their functioning and well-being. Beginning in the late 1990s, psychologists began to think more about people's strengths rather than their weaknesses and to look for ways to foster optimal outcomes for all individuals, not just those who were struggling. Rather than fixing what is broken, the goal of positive psychology is to nurture what is best in the individual (Seligman, 2011; Seligman & Csikszentmihalyi, 2000). Using this approach, researchers have identified a number of human strengths including courage, optimism, interpersonal skills, perseverance, and insight that allow all people not only to survive, but to flourish.

The influence of positive psychology on the study of child development is clearly seen in the **positive youth development** movement. The framework for positive youth development is based on a set of developmental assets that support optimal development for all children, not just those who are at risk. These assets not only allow the child to cope with challenges, but also to take advantage of opportunities. You will learn more about the positive youth development movement in Chapter 15, but research guided by the positive youth development perspective appears in many topics throughout the book.

Positive youth development:
An approach to finding ways to help all young people reach their full potential.

Integrating Themes and Issues

Each of these issues cuts across many of the specific topics that you will study. Each also has been the subject of discussion and debate for many years. For that reason, we are not searching for a single best way to understand the complex process of child development. Rather, each of these issues is a lens through which we can view the process. As you continue to read this book, think about the ways you conceptualize development. As your understanding grows, continue to ask yourself what you believe about development, but also think critically about *why* you hold these beliefs. You should expect your ideas to undergo some significant changes as your understanding of this process grows.

CHECK YOUR UNDERSTANDING

Knowledge Questions

1. What are the differences between physical, cognitive, and social-emotional development?
2. Contrast quantitative and qualitative changes that occur in development.
3. How does niche picking relate to the nature-nurture controversy?
4. What is the positive youth development movement?

Critical Thinking

Compare how a parental belief that children play an active role in their own development versus the belief that children passively receive the influences of their parents affect the parenting strategies a parent might use.

>> LQ 1.3 What are the contexts for child development?

Contexts of Development

Children around the world are similar to one another in many ways, but the way development occurs varies widely depending on the context in which they grow up. *Context* is a very broad term that includes all the settings in which development occurs. Children develop in multiple contexts that include family, schools, communities, socioeconomic status, and cultures. Throughout this book you will learn about these different contexts and the way they influence various aspects of children's development.

Family

Families are the primary context for development for most children. Families today take many different forms, but whether they are nuclear families, single-parent families, multigenerational families, step- or adoptive families, they all serve one important function: They are responsible for the **socialization** of their children. They instill the norms, values, attitudes, and beliefs of their culture so that children grow up to be positive, contributing members of their society. We discuss the effect of different family forms on child development in later chapters, and also examine the ways that families link children and adolescents to the other contexts that influence their development.

Socialization: The process of instilling the norms, values, attitudes, and beliefs of a culture in its children.

School

In most countries, school is another important context for development. During the school year, American children spend on average about 7 hours a day in school (National Center for Education Statistics, 2007–2008). Within this context children learn academic skills, such as reading, writing, and arithmetic, and older children and adolescents are prepared for higher education or entry into the workforce, but schools also play a role in socializing children to become good citizens. In recent years, schools have increasingly taken on other functions besides educating children. Today, schools provide nutritious meals, some health care, and a range of social services for their students. School also is where most children and adolescents make friends, and sometimes become the victims of bullies.

Community

The characteristics of the community in which children live impact many aspects of development (Narine, Krishnakumar, Roopnarine, & Logie, 2013). The nature of that community affects the range and quality of support services available to children and their families. The quality of neighborhood schools affects the educational opportunities and out-of-school activities that are available. Whether a neighborhood is safe or not and whether there are public recreational spaces such as parks in the area affect the amount of time children might spend outside their homes and the kinds of things they do with this time (Kurka et al., 2015). You will learn more about the effects of children's involvement in the natural world in Chapter 11. Community environments can promote healthy development or they can expose children to risks such as environmental pollutants, described in Chapter 8.

Socioeconomic Status

Some families have more resources than others and these differences affect children's development. **Socioeconomic status (SES)** is an indication of the social standing of an individual or group based on a combined measure of income, education, and occupation (American Psychological Association [APA], 2017c). Differences in socioeconomic status are often associated with inequities in access to resources in a society, and these inequities, in turn, can have a negative impact on the lives of children and families (APA, 2017c). This process begins even before a child is born when low SES parents have less access to good nutrition and prenatal care. Consequently, their babies are more likely to be born prematurely or at low birth weight, leaving the child more vulnerable to long-term health problems and possible limits on the child's ability to learn. Families with fewer financial resources often live in neighborhoods that are both unhealthy and unsafe and have schools that offer students fewer opportunities to learn and achieve. Finally, families with few resources are more likely to experience highly stressful life events, such as loss of income, relocation, divorce and separation, and violence (APA, 2017c). Despite these economic disadvantages, we point out to you throughout the book that many children are able to overcome these challenges and lead healthy, happy, and productive lives (see for example Ellis, Bianchi, Giskevicius, & Frankenhuis, 2017; Luthar & Eisenberg, 2017; Masten, 2014; Mayo & Siraj, 2015; Ratcliffe & Kalish, 2017), but as a society we have an essential stake in "leveling the playing field" so that every child has the chance to reach their full potential.

Socioeconomic status (SES): The social standing of an individual or group based on a combined measure of income, education, and occupation.

Culture: The system of behaviors, norms, beliefs, and traditions that form to promote the survival of a group that lives in a particular environmental niche.

Culture

The general findings from research on development are modified not only by individual differences, but also by group differences, such as those between different cultures. **Culture** includes the behaviors, norms, beliefs, and traditions that are shared by a group and that are transmitted from one generation to the next (Matsumoto & Juang, 2017). Culture emerges from a group's environmental niche (or their place in their particular environment) and promotes the survival of the group by improving the ability of the group to meet the demands of that environment. It also helps group members pursue happiness and find meaning in life.

Much of the information we have about child development is based on research carried out in Western, developed countries, but increasingly the field has sought to understand children within the context of their own cultures. To this end, we draw on cross-cultural studies throughout the book to illustrate both research that finds similarities across cultures, which suggests there is a universal process at work, and research that illustrates important differences between cultures that impact children as they develop. For example, in Chapter 6 we look at cross-cultural similarities and differences in child-directed speech. In Chapter 7 we look at how adaptive styles of attachment differ from one cultural context to another as well as how emotions are displayed across cultures. We also look at cultural similarities and differences in children's play (Chapter 8), self-concept (Chapter 13), and self-esteem (Chapter 16), in addition to a number of other topics.

Although the field of child development has shown a deeper, richer appreciation of this diversity in recent years, it is still easy to slip into the assumption that the way we do things is the right way and that other ways are wrong. To guard against labeling culturally based parenting practices as deficient rather than simply different, we must understand cross-cultural experiences in their environmental context to see them as a reflection of a particular set of cultural values. If we do that, we will see that there are a number of different ways to raise children, each of which is responsive to the realities of a particular environment and promotes the well-being of the children in that culture.

For an example of how we may misinterpret the actions and intentions of people whose culture is different from our own, see **Active Learning: Cultural Competence and Grief**.

ACTIVE LEARNING

Cultural Competence and Grief

Joanne Cacciatore (2009) recounts an experience she had with a family that had just suffered the unexpected death of an 18-month-old son. Although two sets of grandparents and the young child's parents were present, no one except one of the grandfathers would talk with a representative of the medical examiner's office. When the grandfather did talk with her, he stayed at least 4 feet away and did not make eye contact. He steadfastly insisted that no autopsy be performed on the child's body, even though the law required one in cases of sudden child deaths in his state. The family sat in the medical examiner's office for almost 2 hours in silence, with little or no show of emotion. When they finally were asked whether they wanted to have some time with the dead child to say their good-byes, they adamantly refused.

How would you interpret this family's behavior? What circumstances could account for it? How does it fit with your cultural beliefs regarding the way a family grieves for the death of a young child? Does their behavior seem typical or atypical to you? Now read about an interpretation of this situation in a particular cultural context in the information printed upside down below.

Does a better understanding of the cultural context in which this episode happened change your interpretation of this family's reaction to the death of this young child? When we see the behavior of parents only through our own cultural lens, it can lead to a seriously flawed interpretation of both what they are doing and why they are doing it. We always need to be on guard against making this mistake. Throughout this book we point out cultural differences that are functional and adaptive in the setting in which they occur.

Answer: This case involved a Native American family, and their behaviors were completely expected and normal for some families in their culture. In this culture, it was the proper role of the grandfather to be the spokesman for the family. Native Americans may not make sustained eye contact when talking to others and may not display emotion even when they are dealing with personal grief. Because this culture values listening, it is not unusual for its members to remain silent even while sitting together. Autopsies are usually prohibited, as is postmortem contact with the deceased. In the cultural context of this family, their behavior was appropriate, respectful, and in keeping with their traditions and beliefs (Cacciatore, 2009). However, we also need to remember that within any culture there is a range of individual differences. Other Native American families who are more assimilated to Western culture might not adhere to all these cultural traditions.