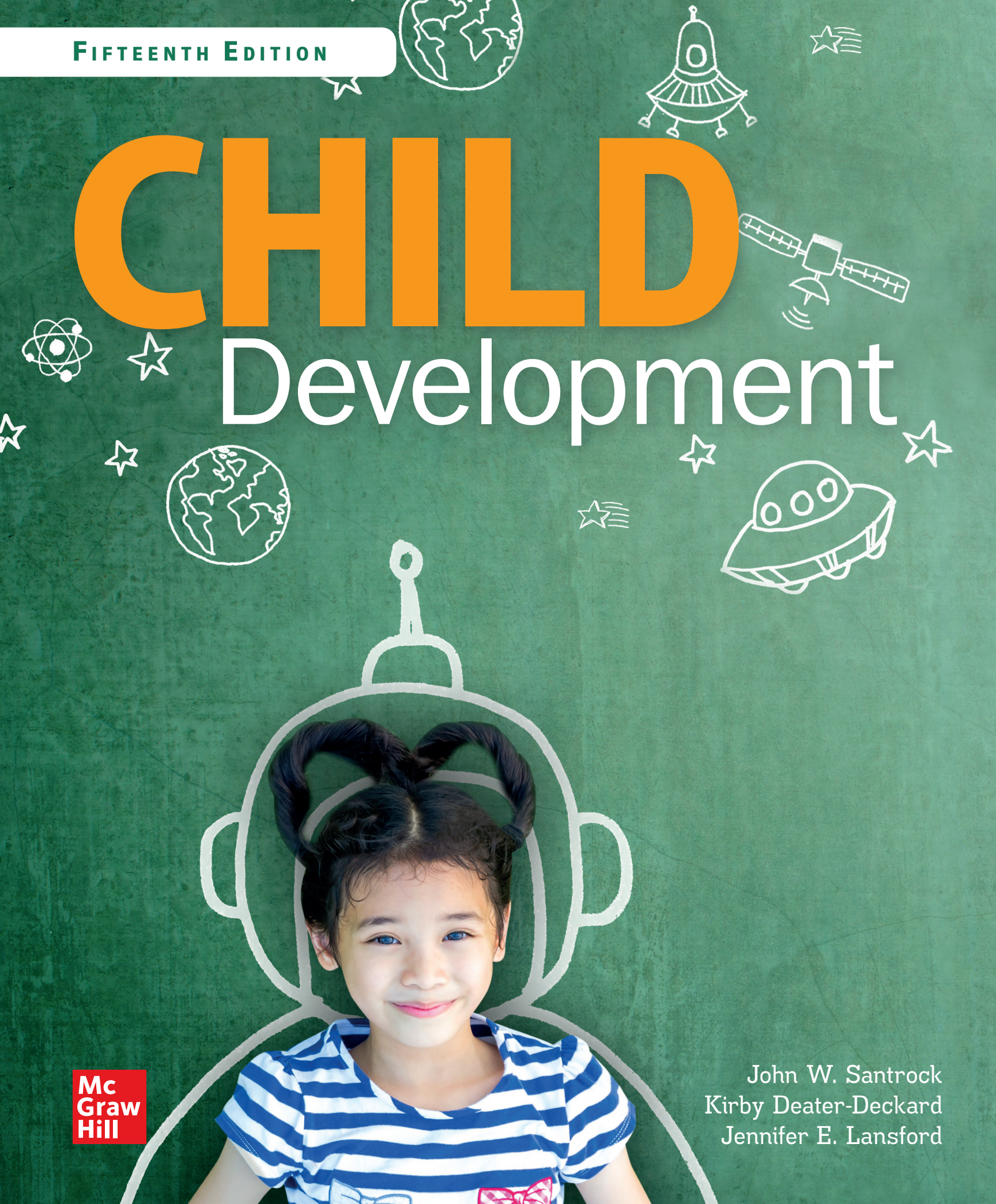
FIFTEENTH EDITION

CHILD Development



John W. Santrock
Kirby Deater-Deckard
Jennifer E. Lansford

Mc Graw Hill

CHILD DEVELOPMENT

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CHILD DEVELOPMENT

Fifteenth Edition

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CHILD DEVELOPMENT, FIFTEENTH EDITION

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Dedication

With special appreciation to my mother,
Ruth Santrock, and my father, John Santrock.

—John W. Santrock

I am dedicating this edition to all of the wonderful
“kids” in my family who continue to teach me about human
development–my daughters Anna and Elly, eleven nieces
and nephews, and two great-nieces.

—Kirby Deater-Deckard

I gratefully acknowledge my parents, David and Maxine Kuehn,
my husband, Chris Lansford, and our children, Katherine and Nick,
who have guided my development and given me insights into theirs.

—Jennifer E. Lansford

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Beau Lark/Fancy/Glow Images

Ariel Skelley/Blend Images/Getty Images

about the authors

John W. Santrock

John Santrock received his Ph.D. from the University of Minnesota in 1973. He taught at the University of Charleston and the University of Georgia before joining the program in Psychology in the School of Behavioral and Brain Sciences at the University of Texas at Dallas, where he currently teaches a number of undergraduate courses and has received the University's Effective Teaching Award.

John Santrock (back row middle) with recipients of the Santrock Travel Scholarship Award in developmental psychology. Created by Dr. Santrock, this annual award provides undergraduate students with the opportunity to attend a professional meeting. A number of the students shown here attended the meeting of the Society for Research in Child Development.
Courtesy of Joanna Kain Gentsch, Ph.D.

John has been a member of the editorial boards of *Child Development* and *Developmental Psychology.* His research on father custody is widely cited and used in expert witness testimony to promote flexibility and alternative considerations in custody disputes. He also has conducted research on children's self-control. John has authored these exceptional McGraw-Hill texts: *Psychology* (7th edition), *Children* (14th edition), *Adolescence* (17th edition), *Life-Span Development* (17th edition), *A Topical Approach to Life-Span Development* (10th edition), and *Educational Psychology* (6th edition).

For many years, John was involved in tennis as a player, teaching professional, and a coach of professional tennis players. As an undergraduate, he was a member of the University of Miami (FL) tennis team that still holds the record for most consecutive wins (137) in any NCAA Division I sport. John has been married for four decades to his wife, Mary Jo, who created and directed the first middle school program for children with learning disabilities and behavioral disorders in the Clarke County Schools in Athens, Georgia, when she was a professor at the University of Georgia. More recently, Mary Jo has worked as a Realtor. He has two daughters—Tracy and Jennifer—both of whom are Realtors after long careers in technology marketing and medical sales, respectively. In 2016, Jennifer became only the fifth female to have been inducted into the SMU Sports Hall of Fame. He has one granddaughter, Jordan, age 25, who completed her master's degree from the Cox School of Business at SMU and currently works for Ernst & Young, and two grandsons—the Belluci brothers: Alex, age 14, and Luke, age 13. In the last decade, John also has spent time painting expressionist art.

Courtesy of Michael McDermott

Kirby Deater-Deckard

Kirby Deater-Deckard is a Professor in the Department of Psychological and Brain Sciences at the University of Massachusetts Amherst, where he serves as graduate program leader in developmental science, and neuroscience and behavior. He also is a Fellow of the Association for Psychological Science and director of the Healthy Development Initiative in Springfield, Massachusetts. He earned his Ph.D. in Developmental Psychology from the University of Virginia in 1994. Dr. Deater-Deckard has authored more than 200 publications that focus on the biological and environmental influences in the development of individual differences in social-emotional and cognitive outcomes in childhood and adolescence. The emphasis of his recent work is on parenting and inter-generational transmission of self-regulation (e.g., executive function, emotion regulation) that uses behavioral, cognitive neuroscience, and genetic research methods. He is principal or co-investigator on several longitudinal studies funded by the National Institutes of Health and the US-Israel Binational Science Foundation. Dr. Deater-Deckard serves as a consulting investigator on several longitudinal research project teams around the globe and is a scientific review panelist for the Institute of Education Sciences (US Department of Education). He is co-editor of the book series, *Frontiers in Developmental Science* (Taylor & Francis), and serves on editorial boards for journals in developmental and family sciences. Dr. Deater-Deckard's wife, Keirsten, is a community volunteer, and they have two daughters, Anna, age 22, and Elly, age 15.

Courtesy of Erika Hanzely-Layko

Jennifer E. Lansford

Jennifer E. Lansford is a Research Professor at the Sanford School of Public Policy and Faculty Fellow of the Center for Child and Family Policy at Duke University. She earned her Ph.D. in Developmental Psychology from the University of Michigan in 2000. Dr. Lansford has authored more than 200 publications that focus on the development of aggression and other behavior problems during childhood and adolescence, with particular attention to how parent, peer, and cultural factors contribute to or protect against these problems. Dr. Lansford leads the Parenting Across Cultures Project, a longitudinal study of mothers, fathers, and children from nine countries (China, Colombia, Italy, Jordan, Kenya, Philippines, Sweden, Thailand, and the United States). In addition, Dr. Lansford has consulted for UNICEF on the evaluation of parenting programs in several low- and middle-income countries and on the development of a set of international standards for parenting programs. She serves in editorial roles on several academic journals and has served in a number of national and international leadership roles, including chairing the U.S. National Institutes of Health Psychosocial Development, Risk and Prevention Study Section; chairing the U.S. National Committee for Psychological Science of the National Academies of Sciences, Engineering, and Medicine; chairing the Society for Research in Child Development International Affairs Committee; and serving on the Secretariat of the International Consortium for Developmental Science Societies. Dr. Lansford's husband, Chris, is a surgeon who specializes in head and neck cancer. They have two children: Katherine, age 16, and Nick, age 13.

expert consultants

Child development has become an enormous, complex field, and no single author, or even several authors, can possibly keep up with all of the rapidly changing content in the many different areas of child development. To solve this problem, the authors have sought the input of leading experts about content in a number of areas of child development. The experts provided detailed evaluations and recommendations in their area(s) of expertise.

The following individuals are among those who served as expert consultants for one or more of the previous editions of this text:

Celia Brownell
Steven Ceci
Dante Cicchetti
Cynthia Garcia Coll
W. Andrew Collins
John Colombo
Tiffany Field
Mary Gauvain
Hill Goldsmith
Joan Grusec
Daniel Hart
Susan Harter
Nancy Hazen
Diane Hughes
Scott Johnson
Rachel Keen
Claire Kopp
Deanna Kuhn
Jeffrey Lachman
Debbie Laible
Michael Lamb
Michael Lewis
Catherine McBride
David Moore
Herb Pick
Carolyn Saarni
Dale Schunk
Robert Siegler
Janet Spence
Robert J. Sternberg
Ross Thompson
Lawrence Walker

Following are the biographies of the expert consultants for the fifteenth edition of this text, who (like the expert consultants for the previous editions) literally represent a Who's Who *in the field of child development.*

Courtesy of John Colombo

John Colombo

John Colombo is a leading expert on cognitive development during infancy and early childhood. He obtained his Ph.D. in Psychology at the State University of New York at Buffalo, and held faculty positions at Canisius College, Niagara University, and Youngstown State University before moving to the University of Kansas in the early 1980s. He is currently a Professor of Psychology and Director of the Schiefelbusch Institute for Life Span Studies at the University of Kansas. His research interests focus on the developmental cognitive neuroscience of attention and learning, with a special focus on early individual differences in these areas and how they relate to the typical and atypical development of cognitive and intellectual functioning. Dr. Colombo is the author/editor of six books, more than 115 peer-reviewed articles, and over 20 book chapters. He has also served on numerous editorial boards for journals in developmental psychology, including two terms as an associate editor for *Child Development*, and editor of the journal *Infancy.*

Courtesy of Rina Eiden

Rina Eiden

Rina D. Eiden is a leading expert on the development of children of substance-using parents. She obtained her Ph.D. from the University of Maryland and is currently Senior Research Scientist in the Department of Psychology, University at Buffalo, State University of New York. Her studies, many of which follow cohorts of children across multiple years, seek to understand the developmental mechanisms, such as infant-parent attachment, self-regulation, and individual differences in children's autonomic and stress reactivity, which explain the association between parental risk factors and children's developmental outcomes. Her work also examines the developmental processes in children that promote resilience in the face of risk; implications of these issues for early intervention or prevention programs for at-risk children; and preventive interventions with substance-using parents. She has been an Associate Editor of *Psychology of Addictive Behaviors* and on the editorial boards of several major developmental and addiction journals. She is a Division 50 Fellow of the American Psychological Association. Dr. Eiden's work has been published in leading research journals such as *Child Development*, *Developmental Psychology*, *Developmental Psychobiology*, *Psychology of Addictive Behaviors*, *Nicotine and Tobacco Research*, and *Neurotoxicology and Teratology*.

Photo courtesy of Lauren H. Adams

James Graham

James A. Graham is a leading expert on the community aspects of ethnicity, culture, and development. He obtained his undergraduate degree from Miami University and received masters and doctoral degrees in developmental psychology from the University of Memphis. Dr. Graham's current position is Professor of Psychology, The College of New Jersey (TCNJ). His research addresses the social-cognitive aspects of relationships between group and dyadic levels across developmental periods in community-based settings. Three interdependent dimensions of his research program examine (1) populations that are typically understudied, conceptually limited, and methodologically constrained; (2) development of empathy and prosocial behavior with peer groups and friends; and (3) developmental science in the context of community-engaged research partnerships. Currently, he is Coordinator of the Developmental Specialization in Psychology at TCNJ. For a decade, Dr. Graham taught graduate courses in psychology and education in Johannesburg, South Africa, through TCNJ's

Graduate Summer Global Program. He is the co-author of *The African American Child: Development and Challenges* (2nd ed.) and *Children of Incarcerated Parents: Theoretical, Developmental, and Clinical Issues.* Dr. Graham has presented his work at a variety of international and national conferences and has published articles in a wide range of journals, including *Social Development*, *Child Study Journal*, *Behavior Modification*, *Journal of Multicultural Counseling and Development*, and *American Journal of Evaluation*.

Courtesy of Stacey Napoli

Michael Lewis

Michael Lewis is widely recognized as one of the world's leading experts on children's socioemotional development. He currently is University Distinguished Professor of Pediatrics and Psychiatry, and Director of the Institute for the Study of Child Development, at Rutgers Robert Wood Johnson Medical School. Dr. Lewis also is Professor of Psychology, Education, Biomedical Engineering, and Social Work at Rutgers University, and serves on the Executive Committee of the Cognitive Science Center. He has written and edited more than 35 books including *Social Cognition and the Acquisition of Self* (1979), *Children's Emotions and Moods* (1983), *Handbook of Emotions* (1993, 2000, 2008, 2016), which was awarded the 1995 Choice Magazine's Outstanding Academic Book Award, *Shame*, *The Exposed Self* (1992), and *Altering Fate: Why The Past Does Not Predict The Future* (1997), which was a finalist for the 1998 Eleanor Maccoby Book Award. Dr. Lewis also edited *The Cambridge Handbook of Environment in Human Development* (2012), *Gender Differences in Prenatal Substance Exposure* (2012), and the third edition of the *Handbook of Developmental Psychopathology* (2014). His most recent book, *The Rise of Consciousness and the Development of Emotional Life* (Guilford Press, 2014), won the William James Book Award from the American Psychological Association. In addition, Dr. Lewis has had more than 350 articles and chapters published in professional journals and scholarly texts. Among his honors, Dr. Lewis is a Fellow of the New York Academy of Sciences, American Psychological Association, and the American Association of the Advancement of Science, as well as the Japan Society for the Promotion of Science. Dr. Lewis received the 2009 Urie Bronfenbrenner Award for Lifetime Contribution to Developmental Psychology in the Service of Science and Society from the American Psychological Association, as well as the 2012 Hedi Levenback Pioneer Award from The New York Zero-to-Three Network. The Society for Research in Child Development awarded him the 2013 Distinguished Scientific Contributions to Child Development award, in recognition of Professor Lewis's lifetime contribution to the scientific body of knowledge and understanding of children's development. In 2018, the International Congress of Infant Studies (ICIS) awarded Dr. Lewis an inaugural Distinguished Contribution Award.

Courtesy of Craig T. Salling

Virginia Marchman

Virginia Marchman is a leading expert on children's language development. She currently is a Research Associate at the Stanford University Language Learning Laboratory. Dr. Marchman obtained her Ph.D. at the University of California–Berkeley. Her main research areas are language development, language disorders, and early childhood development. Dr. Marchman's specific interests focus on individual differences in typically-developing and late-talking children, as well as lexical and grammatical development in monolingual and bilingual learners. Her studies have incorporated a variety of experimental methods as well as computational approaches and naturalistic observation. Dr. Marchman has worked extensively with the MacArthur-Bates Communicative Development Inventories (CDI), developing the CDI Scoring program and serving on the MacArthur-Bates CDI Advisory Board. She has been a consulting editor for *Journal of Speech, Language, and Hearing Research,* and *Child Development*. Dr. Marchman's most recent work involves the development of real-time spoken language understanding using the "looking-while-listening" task in typically-developing and at-risk children. Current studies explore links between children's language processing skill, early learning environments, and individual differences in monolingual and bilingual English-Spanish learners from diverse backgrounds.

Courtesy of Karl Rosengren

Karl Rosengren

Karl S. Rosengren is an expert on children's cognitive and motor development. He obtained his Ph.D. from the Institute of Child Development at the University of Minnesota. He is currently a professor in the Brain and Cognitive Sciences Department and the Clinical and Social Sciences in Psychology at the University of Rochester, having previously been a professor at the University of Wisconsin-Madison, the University of Michigan, the University of Illinois at Urbana-Champaign, and Northwestern University. In the area of cognitive development, his research focuses on how children learn about events in the world and how they separate fantasy from reality. His most recent work in this area has focused on children's understanding of death and how parents in the United States and Mexico socialize children with respect to death. In the area of motor development, his research has focused on the development of balance and gait, as well as the development of children's drawing. Dr. Rosengren is a Fellow of the Association for Psychological Science. He has edited two books and is a co-author of a research methods textbook. Dr. Rosengren has published over 100 research articles and his work has been published in leading research journals, such as *Child Development*, *Psychological Science*, and *Science.*

Connecting *Research* and *Results*

Child Development connects current research and real-world applications. Through an integrated, personalized digital learning program, students gain the insight they need to study smarter and improve performance.

McGraw-Hill Education's **Connect** is a digital assignment and assessment platform that strengthens the link between faculty, students, and course work, helping everyone accomplish more in less time. *Connect for Child Development* includes assignable and assessable videos, quizzes, exercises, and interactivities, all associated with learning objectives. Interactive assignments and videos allow students to experience and apply their understanding of psychology to the world with fun and stimulating activities.

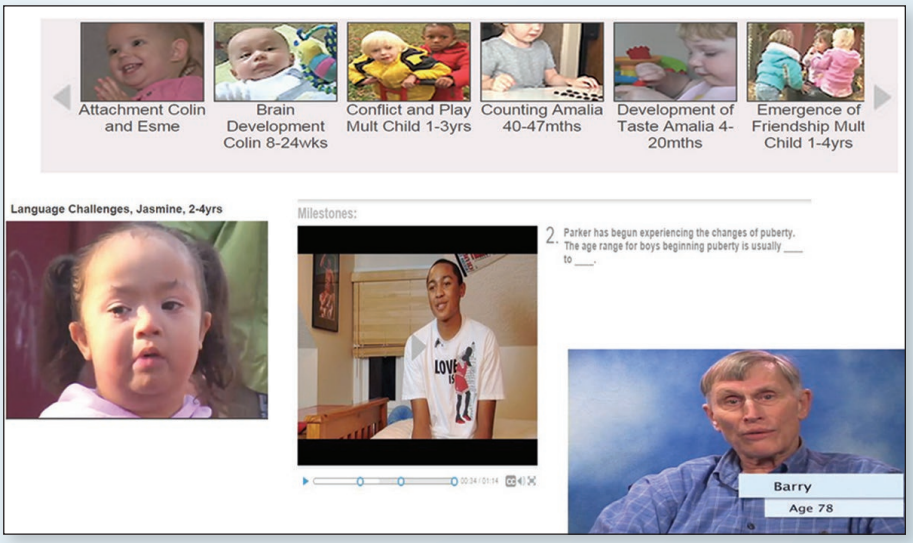
Quest
JOURNEY THROUGH CHILDHOOD

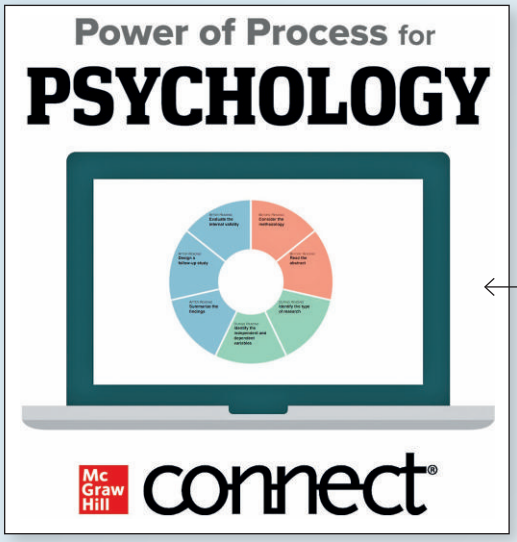
Apply Concepts and Theory in an Experiential Learning Environment

An engaging and innovative learning game, **Quest: Journey through Childhood** provides students with opportunities to apply content from their human development curriculum to real-life scenarios. Students play unique characters who range in age and make decisions that apply key concepts and theories for each age as they negotiate events in an array of authentic environments. Additionally, as students analyze real-world behaviors and contexts, they are exposed to different cultures and intersecting biological, cognitive, and socioemotional processes. Each quest has layered replayability, allowing students to make new choices each time they play–or offering different students in the same class different experiences. Fresh possibilities and outcomes shine light on the complexity of and variations in real human development. This new experiential learning game includes follow-up questions, assignable in Connect and auto-graded, to reach a higher level of critical thinking.

Real People, Real World, Real Life

At the higher end of Bloom's taxonomy (analyze, evaluate, create), the McGraw-Hill Education **Milestones** video series is an observational tool that allows students to experience life as it unfolds, from infancy to emerging adulthood. This ground-breaking, longitudinal video series tracks the development of real children as they progress through the early stages of physical, social, and emotional development in their first few weeks, months, and years of life. Assignable and assessable within Connect for Child Development, Milestones also includes interviews with adolescents and adults to reflect development throughout the entire life span.



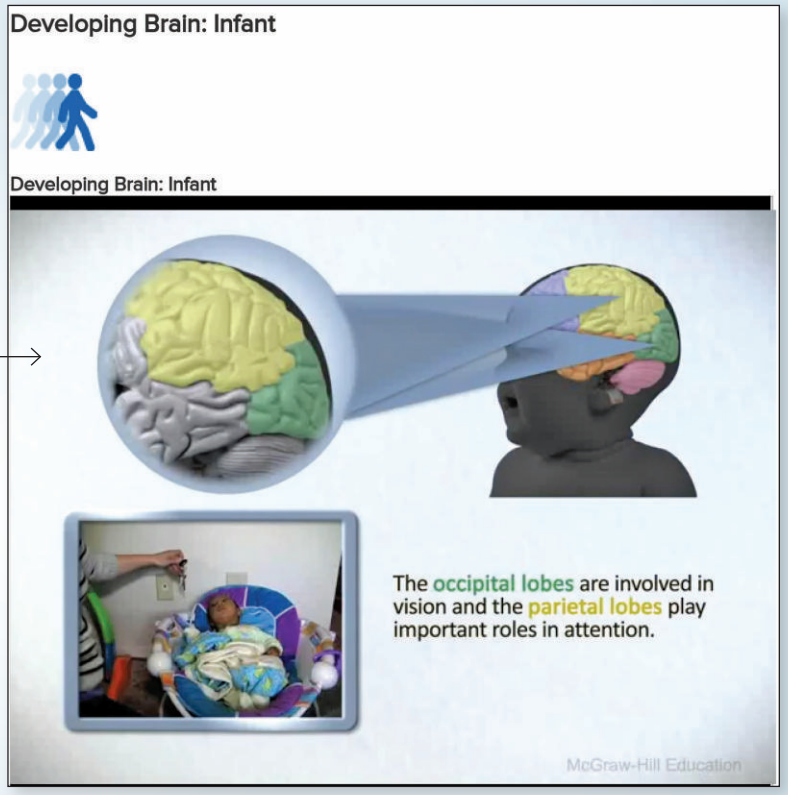


Prepare Students for Higher-Level Thinking

Also at the higher end of Bloom's taxonomy, **Power of Process** for Psychology helps students improve critical thinking skills and allows instructors to assess these skills efficiently and effectively in an online environment. Available through Connect, pre-loaded journal articles are available for instructors to assign. Using a scaffolded framework such as understanding, synthesizing, and analyzing, Power of Process moves students toward higher-level thinking and analysis.

Inform and Engage on Psychological Concepts

At the lower end of Bloom's taxonomy, students are introduced to **Concept Clips**—the dynamic, colorful graphics and stimulating animations that break down some of psychology's most difficult concepts in a step-by-step manner, engaging students and aiding in retention. They are assignable and assessable in Connect or can be used as a jumping-off point in class. Accompanied by audio narration, Concept Clips cover topics such as object permanence and conservation, as well as theories and theorists like Bandura's social cognitive theory, Vygotsky's sociocultural theory, Buss's evolutionary theory, and Kuhl's language development theory.



Mc Graw Hill connect INSIGHT™

Powerful Reporting

Whether a class is face-to-face, hybrid, or entirely online, Connect for Child Development provides tools and analytics to reduce the amount of time instructors need to administer their courses. Easy-to-use course management tools allow instructors to spend less time administering and more time teaching, while easy-to-use reporting features allow students to monitor their progress and optimize their study time.

- **Connect Insight** is a one-of-a-kind visual analytics dashboard—available for both instructors and students—that provides at-a-glance information regarding student performance.
- The **At-Risk Student Report** provides instructors with one-click access to a dashboard that identifies students who are at risk of dropping out of the course due to low engagement levels.
- The **Category Analysis Report** details student performance relative to specific learning objectives and goals, including APA outcomes and levels of Bloom's taxonomy.

Better Data, Smarter Revision, Improved Results

McGraw-Hill Education's **SmartBook** helps students distinguish the concepts they know from the concepts they don't, while pinpointing the concepts they are about to forget. SmartBook's real-time reports help both students and instructors identify the concepts that require more attention, making study sessions and class time more efficient.

SmartBook is optimized for mobile and tablet use and is accessible for students with disabilities. Content-wise, measurable and observable learning objectives help improve student outcomes. SmartBook personalizes learning to individual student needs, continually adapting to pinpoint knowledge gaps and focus learning on topics that need the most attention. Study time is more productive and, as a result, students are better prepared for class and coursework. For instructors, SmartBook tracks student progress and provides insights that can help guide teaching strategies.

Online Instructor Resources

The resources listed here accompany *Child Development*, Fifteenth Edition. Please contact your McGraw-Hill representative for details concerning the availability of these and other valuable materials that can help you design and enhance your course.

Instructor's Manual Broken down by chapter, this resource provides chapter outlines, suggested lecture topics, classroom activities and demonstrations, suggested student research projects, essay questions, and critical thinking questions.

Test Bank and Computerized Test Bank This comprehensive Test Bank includes more than 1,500 multiple-choice and approximately 75 essay questions. Organized by chapter, the questions are designed to test factual, applied, and conceptual understanding.

Test Builder New to this edition and available within Connect, Test Builder is a cloud-based tool that enables instructors to format tests that can be printed or administered within a Learning Management System. Test Builder offers a modern, streamlined interface for easy content configuration that matches course needs, without requiring a download. Test Builder enables instructors to:

- Access all Test Bank content from a particular title
- Easily pinpoint the most relevant content through robust filtering options
- Manipulate the order of questions or scramble questions and/or answers
- Pin questions to a specific location within a test
- Determine your preferred treatment of algorithmic questions
- Choose the layout and spacing
- Add instructions and configure default settings

PowerPoint Slides The PowerPoint presentations, now WCAG compliant, highlight the key points of the chapter and include supporting visuals. All of the slides can be modified to meet individual needs.

preface

Making Connections . . . From the Classroom to *Child Development* to You

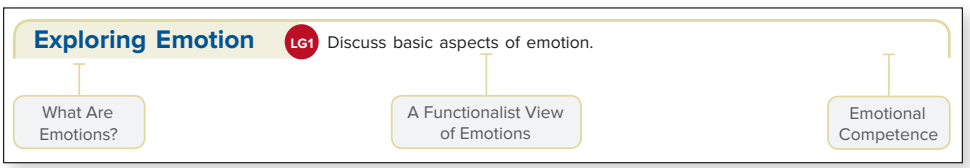
The material in *Child Development* has been shaped by thousands of students taking countless undergraduate developmental courses across four decades. These students have consistently said that when instructors highlight the connections among the different aspects of children's development, they can more readily understand the concepts, theories, and research presented in the course. As a result, *Child Development* has focused on providing a systematic, integrative approach that helps students make these connections in their learning and practice. This new edition continues that philosophy with the addition of Dr. Kirby Deater-Deckard of the University of Massachusetts Amherst and Dr. Jennifer Lansford of Duke University to the author team, who are recognized as leading researchers and educators in the field and have served as Expert Consultants for many editions of this successful Life-Span franchise. This combined experience has influenced the main goals for the text, as follows:

1. **Connecting with today's students** Helping students learn about child development more effectively
2. **Connecting research to what we know about children's development** Providing students with the best and most recent *theory and research* in the world today about each of the periods of child development
3. **Connecting topical and developmental processes** Guiding students in making *developmental connections* across different points in child development
4. **Connecting development to real life** Helping students understand ways to *apply* content about child development to the real world and improve people's lives, and to motivate students to think deeply about *their own personal journey through life* and better understand who they were, are, and will be

Connecting with Today's Students

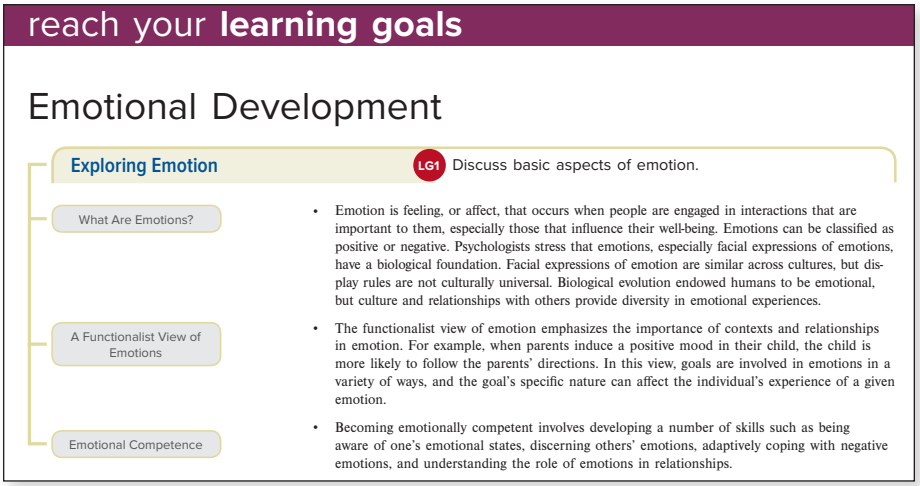
Development courses are challenging because of the amount of material often covered. To help today's students focus on the key ideas, the Learning Goals system in *Child Development* provides extensive learning connections throughout the chapters. The learning system connects the chapter-opening outline, learning goals for the chapter, mini-chapter maps that open each main section of the chapter, ***Review, Connect, and Reflect*** at the end of each main section, and the chapter summary at the end of each chapter.

The learning system keeps the key ideas in front of the student from the beginning to the end of the chapter. The main headings of each chapter correspond to the learning goals, which are presented in the chapter-opening spread. Mini-chapter maps that link up with the learning goals are presented at the beginning of each major section in the chapter.



Then, at the end of each main section of a chapter, the learning goal is repeated in ***Review, Connect, and Reflect,*** which prompts students to review the key topics in the section, connect these topics to existing knowledge, and relate what they learned to their own personal journey through life. ***Reach Your Learning Goals,*** at the end of the chapter,

guides students through the bulleted chapter review, connecting with the chapter outline/learning goals at the beginning of the chapter and the ***Review, Connect, and Reflect*** material at the end of each major section.


reach your **learning goals**

Emotional Development

Exploring Emotion LG1 Discuss basic aspects of emotion.

What Are Emotions?

- Emotion is feeling, or affect, that occurs when people are engaged in interactions that are important to them, especially those that influence their well-being. Emotions can be classified as positive or negative. Psychologists stress that emotions, especially facial expressions of emotions, have a biological foundation. Facial expressions of emotion are similar across cultures, but display rules are not culturally universal. Biological evolution endowed humans to be emotional, but culture and relationships with others provide diversity in emotional experiences.

A Functionalist View of Emotions

- The functionalist view of emotion emphasizes the importance of contexts and relationships in emotion. For example, when parents induce a positive mood in their child, the child is more likely to follow the parents' directions. In this view, goals are involved in emotions in a variety of ways, and the goal's specific nature can affect the individual's experience of a given emotion.

Emotional Competence

- Becoming emotionally competent involves developing a number of skills such as being aware of one's emotional states, discerning others' emotions, adaptively coping with negative emotions, and understanding the role of emotions in relationships.

Connecting Research to What We Know About Children's Development

It is critical to include the most up-to-date research available. As with previous editions, we continue to look closely at specific areas of research, involve experts in related fields, and update research throughout. **Connecting Through Research** describes a study or program to illustrate how research in child development is conducted and how it influences


connecting through research

How Does Theory of Mind Differ in Children with Autism?

Approximately 1 in 59 children is estimated to have some sort of autism spectrum disorder (National Autism Association, 2019). Autism can usually be diagnosed by the age of 3 years, and sometimes earlier. Children with autism show a number of behaviors different from typically developing children their age, including deficits in social interaction and communication as well as repetitive behaviors or interests. They often show indifference toward others, in many instances preferring to be alone and showing more interest in objects than people. It now is accepted that autism is linked to genetic and brain abnormalities (Tremblay & Jiang, 2019). Children and adults with autism have difficulty in social interactions. These deficits are generally greater than deficits in children the same mental age with intellectual disability (Greenberg & others, 2018). Researchers have found that children with autism have difficulty in developing a theory of mind, especially in understanding others' beliefs and emotions (Fletcher-Watson & Happé, 2019). Although children with autism tend to do poorly when reasoning on false-belief tasks, they can perform much better on reasoning tasks requiring an understanding of physical causality. Individuals with autism might have difficulty in understanding others' beliefs and emotions not solely because of theory of mind deficits but also due to other aspects of cognition such as problems in focusing attention, eye gaze, face recognition, memory, language impairment, or some general intellectual impairment (Boucher, 2017).

In relation to theory of mind, however, it is important to consider the effects of individual variations in the abilities of children with autism. Children with autism are not a homogeneous group, and some have less severe social and communication problems than others. Thus, it is not surprising that children who have less severe forms of autism do better than those who have more severe forms of the disorder on some theory of mind tasks (Jones & others, 2018). A further important consideration in thinking about autism and theory of mind is that children with autism might have difficulty in understanding others' beliefs and emotions not solely due to theory of mind deficits but to other aspects of cognition such as problems in focusing attention or some general intellectual impairment. For instance, weaknesses in executive function may be related to the problems experienced by those with autism in performing theory of mind tasks. Other theories have pointed out that typically developing individuals process information by extracting the big picture, whereas those with autism process information in a very detailed, almost obsessive way. It may be that in autism, a number of different but related deficits lead to social cognitive deficits (Moseley & Pulvermueller, 2018; Rajendran & Mitchell, 2007).

A young boy with autism. *What are some characteristics of children who are autistic? What are some deficits in their theory of mind?*
Robin Nelson/PhotoEdit

our understanding of the discipline. Topics range from "Do Children Conceived Through In Vitro Fertilization Show Significantly Different Outcomes in Childhood and Adolescence?" to "How Can We Study Newborns' Perception?" to "What Are the Perspective Taking and Moral Motivation of Bullies, Bully-Victims, Victims, and Prosocial Children?".

The tradition of obtaining detailed, extensive input from leading experts in different areas of child development also continues in this edition. Biographies and photographs of the leading experts in the field of child development appear on pages xvi–xvii. Finally, the research discussions have been updated in every period and topic in order to keep *Child Development* as current as possible. To that end, there are more than 1,300 citations from 2017, 2018, and 2019 in this new edition.

Connecting Topical and Developmental Processes

Too often we forget or fail to notice the many connections from one point in child development to another. Thus, several features have been designed to help students connect topics across the processes and periods of child development:

1. ***Developmental Connections,*** which appears multiple times in the margins of each chapter, points students to where the topic is discussed in a previous, current, or subsequent chapter. This feature highlights links across development *and* connections among biological, cognitive, and socioemotional processes. The key developmental processes are typically discussed in isolation from each other, and so students often fail to see their connections. Included in ***Developmental Connections*** is a brief description of the backward or forward connection.
2. A *Connect* question appears in self-reviews–***Review, Connect, and Reflect***–at the end of each main section in a chapter so students can practice making connections among topics.

Connecting Development to Real Life

In addition to helping students make research and developmental connections, *Child Development* shows the important connections among the concepts discussed and the real world. Real-life connections are explicitly made in the chapter-opening vignette, in ***Caring Connections, Connecting with Diversity,*** and ***Connecting with Careers.***

Each chapter begins with a story designed to increase students' interest and motivation to read the chapter. ***Caring Connections*** provides applied information about parenting, education, or health and well-being in relation to topics ranging from "From Waterbirth to Music Therapy" to "Parents, Coaches, and Children's Sports" to "Guiding Children's Creativity."

caring *connections*

Parenting Recommendations for Raising a Moral Child

A comprehensive and influential review of the research (Eisenberg & Valiente, 2002, p. 134) concluded that, in general, children who behave morally tend to have parents who:

- "are warm and supportive rather than punitive;
- use inductive discipline;
- provide opportunities for the children to learn about others' perspectives and feelings;
- involve children in family decision making and in the process of thinking about moral decisions;
- model moral behaviors and thinking themselves, and provide opportunities for their children to do so;
- provide information about what behaviors are expected and why; and
- foster an internal rather than an external sense of morality."

Parents who show this configuration of behaviors likely foster concern and caring about others in their children, and create a positive parent-child relationship. In addition, parenting recommendations based on Ross Thompson's (2014) analysis of parent-child relations suggest that children's conscience and moral development benefits when there are mutual parent-child obligations involving warmth and responsibility, and when parents use proactive strategies instead of punitive reactions, when disciplining for misbehavior.

What are some good strategies parents can adopt to foster their child's moral development?
Anna Pekunova/Getty Images

One of the strategies above suggests modeling moral behaviors and thinking. According to the research cited in the Moral Exemplars section of this chapter, which two traits were common to moral exemplars?

Child Development puts a strong emphasis on diversity. For a number of editions, this text has benefited from the involvement of one or more leading experts on diversity to ensure that it provides students with current, accurate, sensitive information related to diversity in children's development.

Although diversity is discussed throughout this edition, the chapter "Culture and Diversity" includes extensive material on the subject with substantial research updates. Further, a feature called **Connecting with Diversity** appears throughout the text, focusing on a diversity topic related to the material at that point in the chapter. Topics range from "The Increased Diversity of Adopted Children and Adoptive Parents" to "Cultural Variations in Guiding Infants' Motor Development" to "The Contexts of Ethnic Identity Development."

connecting with diversity

Culture and Children's Memory

A culture sensitizes its members to certain objects, events, and strategies, which in turn can influence the nature of memory (Bauer & Fivush, 2013; Wagoner, 2017). In schema theory, a child's background, which is encoded in schemas, is revealed in the way the child reconstructs a story. This effect of cultural background on memory is called the *cultural-specificity hypothesis.* It states that cultural experiences determine what is relevant in a person's life and thus what the person is likely to remember. For example, imagine a child living on a remote island in the Pacific Ocean whose parents make their livelihood by fishing. The child's memory about how weather conditions affect fishing is likely to be highly developed. By contrast, a Pacific Islander child might struggle to encode and recall the details of a job involving work on large farms, or cutting lumber on forested mountains.

Cultures may vary in the strategies that children use to remember information, and these cultural variations are due in part to schooling (Packer & Cole, 2016). Children who have experienced schooling are more likely to cluster items together in broader categories, which helps them to remember the items. Schooling also provides children with specialized information-processing tasks, such as committing large amounts of information to memory in a short time frame and using logical reasoning, that may generate specialized strategies. However, there is no evidence that schooling increases memory capacity per se; rather, it influences the strategies for remembering (Packer & Cole, 2016).

Scripts are schemas for an event. In one older but illustrative study, adolescents in the United States and Mexico remembered according to script-based knowledge (Harris, Schoen, & Hensley, 1992). In line with common practices in their respective cultures, adolescents in the United States remembered information about a dating script better when no chaperone was present on a date, whereas adolescents in Mexico remembered the information better when a chaperone was present.

American children, especially American girls, describe autobiographical narratives

> that are longer, more detailed, more specific, and more 'personal' (both in terms of mention of self, and mention of internal states), than narratives by children from China and Korea. The pattern is consistent with expectations derived from the finding that in their conversations about past events, American mothers and their children are more elaborative and more focused on autonomous themes . . . and that Korean mothers and their children have less frequent and less detailed conversations about the past. . . . (Bauer, 2006, p. 411)

Family narratives and stories pass down memories from one generation to the next, and these family memories may be particularly salient in cultures in which individuals are highly "interdependent" with each other (Reese & others, 2017).

Students in class at a school in Mali, Africa. *How might their schooling influence their memory?*
Pascal Deloche/Corbis Documentary/Getty Images

How might guided participation, which is used in many different cultures, support the influence of culture on memory?