

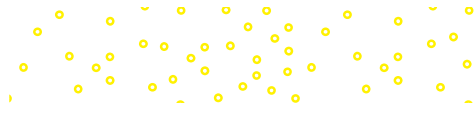


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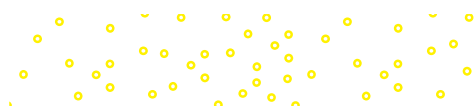
Gabriela Martorell



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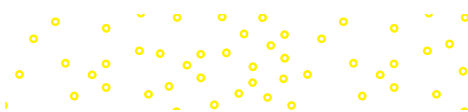
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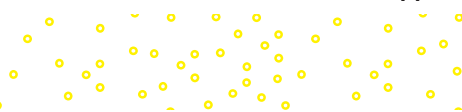
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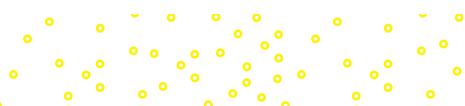
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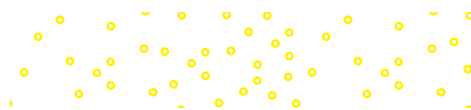
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Chapter 16: Culture and Discretionary Time



PREFACE

Child, second edition, is designed to be a brief but thorough account of human development from conception through adolescence, exposing students to culture and diversity and immersing them in practical application. *Child* combines a commitment to scholarly content, critical thinking, and real-life application of theory with a visually engaging and dynamic, interactive format. Written from a developmental framework and borrowing from multiple traditions and theoretical perspectives, *Child* also addresses the major periods of development and focuses on the important biological, psychological, and social forces driving change, highlighting theoretical distinctions, research findings, and new directions in the field. *Child* will engage your students and encourage the application of psychological concepts to everyday life.

Paired with McGraw-Hill Education **Connect**, a digital assignment and assessment platform that strengthens the link between faculty, students, and course work, instructors and students 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.

Diversity

In response to requests from faculty like you, substantial space has been devoted to addressing issues of diversity. When relevant, each chapter includes current U.S. statistics drawn from census data and national governmental databases, including not just major population trends but also demographic and statistical information on ethnic and racial minorities. In many cases, information on global statistics, trends, and cultural differences has been included as well.

Additionally, each chapter includes a *Perspectives on Diversity* feature. In this feature, a cross-cultural issue of interest is addressed from a global perspective. These features address a wide variety of topics, including, for example, cultural differences in beliefs about conception and fertility or attitudes toward corporal punishment or research-based features on topics such as prenatal care and infant mortality. A complete listing of *Perspectives on Diversity* can be found on page xvi.

Other forms of diversity have also been included. For example, the influence of socioeconomic status is highlighted

for topics such as low birth weight, school achievement, tested IQ, and family relationships. Information is also included on different family structures, including gay and lesbian parents, stepparents, divorced parents, and those families in which adults remain single by choice.

Current Research

Child, second edition, draws a current picture of the state of the field. In well-established areas of psychology, there is an emphasis on the inclusion of review articles and meta-analyses in order to capture the major trends found through decades of psychological research. In research areas with less information available, the emphasis is on the inclusion of the newest research available in that area.

The second edition of *Child* features expanded and updated coverage of many key areas, including brain development, gender differences and gender typing, aggression and bullying, and the influences of media on development. Topical areas that have arisen in the public consciousness in recent years have also been included. For example, new sections in the second edition examine topics such as opioid use during pregnancy, cultural influences on motor development, alcohol and nicotine use in adolescence, and transgender children.

Better Data, Smarter Revision, Improved Results

Students helped inform the revision of *Child*. Content revisions were informed by data collected anonymously through McGraw-Hill Education's SmartBook®:

Step 1. Data points showing concepts that caused students the most difficulty were anonymously collected from the SmartBook for the first edition of *Child*.

Step 2. The data were provided to the author in the form of a Heat Map, which graphically illustrates “hot spots” in the text that affect student learning (see image p. xviii).

Step 3. The author used the Heat Map data to refine the content and reinforce student comprehension in the new edition. Additional quiz questions and assignable activities were created for use in Connect to further support student success.

Because the Heat Map gave the author empirically based feedback at the paragraph and even sentence level, she was able to develop the new edition using precise student data that pinpointed concepts that gave students the most difficulty.

Emotions and Temperament

Newborn Zev was a happy baby. He cried little, slept on a relatively consistent schedule, and spent much of his time calmly watching the world with his large brown eyes. Friends and family commented on his ease, asking his parents how they managed to mold his behavior this way. “We didn’t,” his parents answered, “he just seemed to be born like that.”

Although babies share common development patterns, each from the start shows a relatively consistent and predictable way of responding to the environment. Each baby has its own unique temperament. One baby may usually be cheerful; another easily upset. One toddler plays happily with other children; another prefers to play alone. Such characteristic ways of feeling, thinking, and acting affect the way children respond to others and adapt to their world. From infancy on, temperament is intertwined with social relationships (Table 7.1), a combination called psychosocial development.

EMOTIONS

Emotions are subjective reactions to experience that are associated with physiological and behavioral changes. Fear, for example, is accompanied by a faster heartbeat. People differ in how often and how strongly they feel a particular emotion, in the events that may produce it, in the physical manifestations they show, and in how they act as a result.

Emotional development follows a relatively standard developmental timeline, beginning in early infancy. It is an orderly process; complex emotions unfold from simpler ones (Lewis, 1997; Figure 7.4). Emotions also become

increasingly social and include the self-conscious emotions such as shame and embarrassment. Last, emotions then prompt young children into engaging in shared intentionality and collaborative activity.

EARLY EMOTIONAL RESPONSES

Early emotional responses include crying, smiling and laughing, self-conscious emotions, altruistic helping and empathy, and shared intentionality and collaborative activity.

Crying

Newborns plainly show when they are unhappy. They let out piercing cries, flail their arms and legs, and stiffen their bodies. Adults find the sound of crying unpleasant—and therein lies its function. Crying is the primary way in which infants communicate their needs and is considered to be an honest signal of need.

Infants cannot be spoiled by picking them up when they cry; indeed, repeatedly not soothing infants when they are upset may interfere with their developing ability to regulate their emotional state (R. A. Thompson, 1991; 2011). The most developmentally sound approach to crying may be to prevent distress, making soothing unnecessary.

Smiling and Laughing

The earliest faint smiles occur spontaneously soon after birth, apparently as a result of subcortical nervous system activity. Through 1 month of age, smiles are often elicited by high-pitched tones when an infant is drowsy or in REM sleep. During the 2nd month as visual recognition develops, babies smile more at visual stimuli, such as faces they know (Sroufe, 1997).

Support for Student Engagement

Child, second edition, offers a dynamic learning experience designed for today’s students. The research-based content of *Child* is written around key learning objectives to support student mastery. *Did You Know?* features introduce relevant, interesting facts about concepts to further engage students. *Child* supports application of concepts and theories to the real world through the features *What Do You Do?* and *What Do You Think?* and with textual examples. The *Summary* and *Practice Quiz* at the end of each chapter provide students with opportunities to assess and confirm their learning.

Provide a Smarter Text and Better Value



New to this edition, **SmartBook** is now optimized for mobile and tablet and is accessible for students with disabilities. Content-wise, it has been enhanced with improved learning objectives that are measurable and observable to 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.

The screenshot shows the SmartBook interface. On the left, a question asks: "Neurons receive messages through fiberlike extensions called ____." Below the question are four options: synapses, axons, glia, and dendrites. A progress indicator shows 72% completion. On the right, a text passage explains: "Once in place, the neurons sprout axons and dendrites—narrow, branching, fiberlike extensions. Axons send signals to other neurons, and dendrites receive incoming messages from them, through synapses, tiny gaps, which are bridged with the help of chemicals called neurotransmitters that are released by the neurons. Eventually, a particular neuron may have anywhere from 5,000 to 100,000 synaptic connections. The multiplication of dendrites and synaptic connections, especially during the last 2½ months of gestation and the first 6 months to 2 years of life, accounts for much of the brain's growth and permits the emergence of new perceptual, cognitive, and motor abilities. As the neurons multiply, migrate to their assigned locations, and develop connections, they undergo the complementary processes of integration and differentiation. Through integration, the neurons that control various groups of muscles coordinate their activities. Through differentiation, each neuron takes on a specific, specialized structure and function."

Powerful Reporting

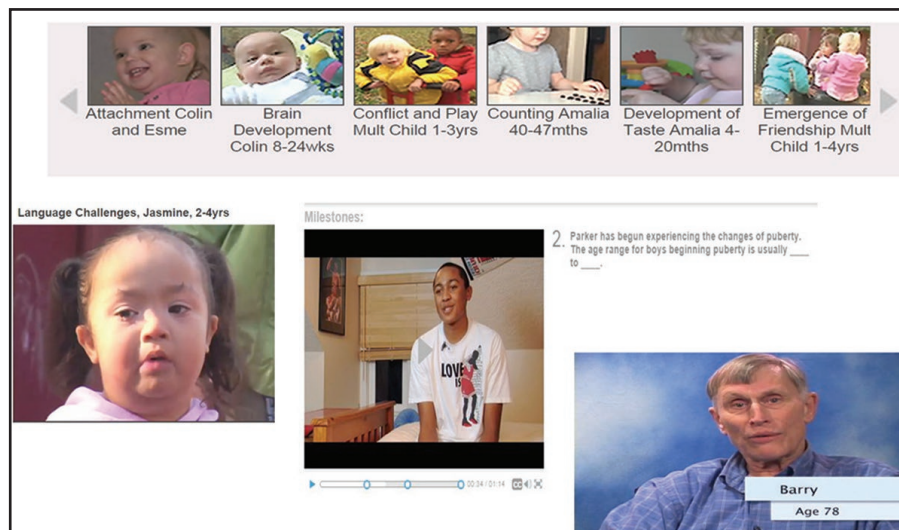
Whether a class is face-to-face, hybrid, or entirely online, Connect for Child Development provides tools and analytics to reduce the amount of time instructors need to administer their courses. Easy-to-use course management tools allow instructors to spend less time administering and more time teaching,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

- 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.
- **Connect Insight** is a one-of-a-kind visual analytics dashboard—now available for both instructors and students—that provides at-a-glance information regarding student performance.
- The **LearnSmart Reports** allow instructors and students to easily monitor progress and pinpoint areas of weakness, giving each student a personalized study plan to achieve success.



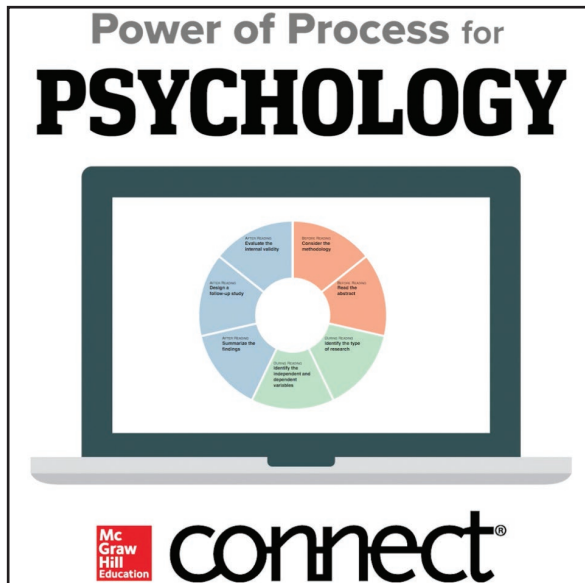
Real People, Real World, Real Life

At the higher end of Bloom’s taxonomy, the **McGraw-Hill Education Milestones video series** offers an observational tool that allows students to experience life as it unfolds, from infancy to late adulthood. This groundbreaking, 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, Milestones also includes interviews with adolescents and adults to reflect development throughout the entire life span.



Preparing Students for Higher-Level Thinking

Also at the higher end of Bloom's, and new to the second edition, **Power of Process for Child Development** helps students improve critical-thinking skills and allows instructors to assess these skills efficiently and effectively in an online environment. Available through Connect, preloaded 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.



- **Interactivities:** Assignable through Connect, Interactivities engage students with content through experiential activities. New and updated activities include Neurons, Research Ethics, Prenatal Development, Kohlberg's Moral Reasoning, and Gardner's Theory of Multiple Intelligences.

Online Instructor Resources

The resources listed here accompany *Child*, second 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.

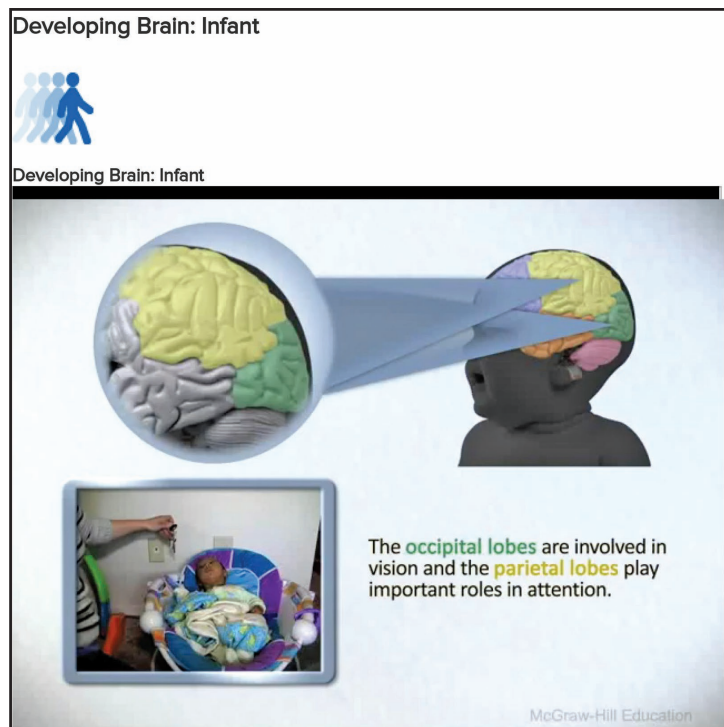
- **Instructor's Manual:** Broken down by chapter, this resource provides chapter outlines, suggested lecture topics, classroom activities and demonstrations, suggested student research projects, essay questions, and critical-thinking questions.
- **Test Bank and Computerized Test Bank:** This comprehensive Test Bank includes more than 1,500 multiple-choice, true-false, and short essay questions. Organized by chapter, the questions are designed to test factual, applied, and conceptual understanding. All test questions are available within TestGen™ software.
- **PowerPoint Slides:** The PowerPoint presentations, now with improved accessibility, highlight the key points of the chapter and include supporting visuals. All of the slides can be modified to meet individual needs.

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. Complete with audio narration, Concept Clips focus on topics such as object permanence and conservation, as well as theories and theorists like Bandura's social cognitive theory, Vygotsky's sociocultural theory, and Kuhl's language development theory.

Also for the lower levels of Bloom's Taxonomy:

- **NewsFlash:** New to the second edition, NewsFlash activities tie current news stories to key psychological principles and learning objectives. After interacting with a contemporary news story, students are assessed on their ability to make the connection between real life and research findings.



Chapter-by-Chapter List of Changes

Every chapter has been extensively revised and updated for the second edition, with new research findings, updated statistics, and expanded coverage of key topics.

Chapter 1 Introduction to Child Development

- New section on fields of study in child development.
- Expanded description of genetic and environmental influences on development.
- Updated statistics on U.S. household composition.
- Updated statistics on ethnic minority populations and trends in the United States.
- *Perspectives on Diversity* feature updated with demographic changes, effects of implementation of the Affordable Care Act, and potential changes to health insurance coverage under the new presidential administration.
- Added discussion of diversity within ethnic categories and ethnic gloss.
- Expanded discussion of active versus passive development and of continuous versus discontinuous development.
- Expanded discussion of Erikson's theory of psychosocial development.
- Added information about the history of learning theoretical approaches and why they gained prominence in the scientific community.
- Expanded description of Pavlov's research.
- Added specific examples of classical conditioning, positive and negative reinforcement and punishment, and the use of behavioral modification.
- Added critique of learning theories as an overarching framework of development.
- Expanded example of the processes of assimilation and accommodation.
- Added a specific example of scaffolding.
- New discussion of Vygotsky's experimental approach and expanded discussion of his impact on the field.
- New example of how quantitative data can be used to infer internal mental processes in information processing research.
- Added descriptions of each of Bronfenbrenner's systems, including the microsystem, mesosystem, exosystem, macrosystem, and chronosystem.
- Expanded descriptions of evolutionary theory and evolutionary psychology.
- New section on quantitative and qualitative research.
- Added information on qualitative research methods and goals.
- Expanded section on self-report measures.

- Added information on observer bias.
- Expanded information on pros and cons of case studies.
- New example of a spurious correlation.
- New material on operational definitions.
- New section on random assignment.
- Expanded description of field experiments.
- New material on the pros and cons of cross-sectional and longitudinal research designs.

Chapter 2 Conception, Heredity, and Environment

- Expanded discussion on causes of infertility.
- Updated statistics on infertility and the use of artificial reproductive technologies.
- Added coverage of the risks of multiple pregnancies and new guidelines for transfer of multiple embryos.
- Updated information and statistics on adoption.
- Revised discussion of recessive and dominant inheritance patterns.
- Expanded discussion of multifactorial transmission and epigenetic changes.
- Added material on racial and ethnic variations in prevalence of birth disorders.
- Revised discussion of heritability.
- Expanded discussion and examples of canalization and range of reaction.
- Expanded examples for nonshared environmental influences in the family.
- Expanded discussion of, and updated research on, the interaction of genes and environment on obesity, temperament, and schizophrenia.

Chapter 3 Pregnancy and Prenatal Development

- Expanded description of the placenta.
- Updated and expanded statistics on miscarriage.
- Expanded information on pain perception in fetuses.
- Updated research on auditory perception and auditory memory in fetuses.
- Updated information on weight gain and nutritional recommendations in pregnancy.
- Updated global statistics on malnutrition during pregnancy.
- Differentiation of malnutrition as a result of calorie deficit versus nutrient deficit.
- New information on the effects of Zika exposure during pregnancy.
- Updated information on rubella outbreaks in the United States.
- Revised section on maternal anxiety and stress.
- Updated statistics on maternal age.
- Expanded information on the influence of environmental hazards on pregnancy.

- New section on the influence of opioid exposure on pregnancy outcomes and neonatal abstinence syndrome.
- Expanded information on the transmission of alcohol and drugs through breast milk.
- Expanded information on the effects of tobacco smoke on pregnancy.
- Updated information on the risks associated with caffeine usage during pregnancy.
- Updated information on the effects of marijuana, cocaine, and methamphetamine use during pregnancy.
- Updated and expanded information on paternal factors in pregnancy.
- Added information on prenatal cell-free DNA scans.
- Updated *Perspectives on Diversity* feature on disparities in prenatal care around the world.

Chapter 4 Birth and the Newborn

- Updated statistics on childbirth, birth complications, and maternal mortality in the United States.
- New global statistics on childbirth, birth complications, and maternal mortality.
- Expanded information and updated research on outcomes associated with the use of doulas during childbirth.
- Expanded information on developmental changes and cultural variations in infant sleep patterns.
- Updated global and U.S. statistics on low-birth-weight babies.
- New information on the link between sleep organization and outcomes in preterm infants.
- Updated research on low-birth-weight babies, including long-term outcomes.
- Updated statistics on postmature infants.
- Updated statistics and research on stillbirth.
- Expanded information on neurological basis of parental bonding and on fathers' involvement in caregiving and play.

Chapter 5 Physical Development and Health, 0 to 3

- Expanded information on growth rates in the first 3 years of life.
- Added information on teething.
- Updated statistics on U.S. breast-feeding rates.
- Expanded information and new research on obesity in infancy.
- New section on malnutrition in infancy.
- New section on brain cells, including information on integration and differentiation of neurons.
- New section on myelination of neural pathways.
- Updated research on pain perception in newborns.

- Expanded information on the development of smell and taste and adaptive nature of taste preferences.
- Updated research on auditory discrimination in infancy.
- New information on infant preferences for and ability to discriminate facial stimuli.
- Updated research on visually directed reaching in infants and on haptic perception.
- New section on cultural influences on motor development.
- Updated statistics and information on global and U.S. infant mortality.
- Updated statistics on U.S. racial and ethnic disparities in infant mortality rates.
- Updated statistics and information on sudden infant death syndrome (SIDS), child injuries, and child maltreatment rates.
- Updated global and U.S. statistics and information on vaccination rates.
- Updated research on nonorganic failure to thrive in infancy and toddlerhood.
- Updated research on characteristics of abusive parents and household environments.
- New information on long-term outcomes of children placed in foster care.
- Expanded and updated information on long-term effects of maltreatment.

Chapter 6 Cognitive Development, 0 to 3

- Updated research example for the use of conditioning paradigms in infant research.
- Expanded discussion of Piaget's sensorimotor substages.
- Expanded discussion of the object concept, including new information on the a-not-b error.
- New section on imitation, including information on visible imitation, invisible imitation, deferred imitation, and preferences in imitation.
- New section on symbolic development, pictorial competence, and understanding of scale.
- New section on perceptual processing abilities.
- Expanded and updated information and research on information processing as a predictor of intelligence, on the development of categorization in infancy, and on the development of the understanding of causality.
- Expanded and updated discussion of violation-of-expectations research methodology.
- Expanded and updated information and research on the development of an understanding of number in infants.
- Expanded and updated information and research on the development of neural structures and their link to memory processes.

- Expanded discussion of the social constructionist approach and how it applies to early childhood education.
- Expanded discussion of the development of infant understanding of phonemic native language patterns.
- Updated research on the use of gestures in infants.
- Expanded information on language milestones in infancy and on syntactic development.
- New section on sign language development in deaf children.
- Expanded discussion of characteristics of early speech and language errors.
- Expanded discussion of and updated research on the role of social interaction in language development and on child-directed speech.

Chapter 7 Psychosocial Development, 0 to 3

- Expanded definition of emotion.
- Expanded discussion of and updated research on developmental changes in crying and in smiling and laughter in infancy.
- Expanded discussion of and updated research on the development of altruism and empathy, including new information on underlying brain neurology.
- Expanded information on the link between collaborative activities and the development of culture.
- Expanded discussion and updated research on stability of temperament, with particular attention on developmental changes in relative influence of genes and environment and cultural influences on stability.
- Expanded discussion of and updated research on behavioral inhibition.
- Expanded description of behaviors of resistantly attached infants.
- Expanded discussion on how attachment is established.
- Expanded discussion of and updated research on long-term effects of attachment.
- New information on physiological and neurological correlates of parental attachment history.
- Expanded discussion of mutual regulation, with the addition of new material on interactional synchrony and the role of oxytocin.
- Expanded discussion of and updated research on social referencing.
- Expanded description on the origins of the self-concept.
- Added information on cultural variations in the development of the self.
- Expanded discussion on the development of conscience, including new information on receptive cooperation.
- Expanded discussion and updated research on factors in the success of socialization.

- Expanded discussion and updated research on sex and gender differences in infants and toddlers.
- Expanded discussion on sibling influences.
- New information included on peer preferences.

Chapter 8 Physical Development and Health in Early Childhood

- Updated information on brain changes from 3 to 6 years of age.
- Expanded discussion and updated research on sleep disturbances.
- Expanded discussion and updated research and statistics on night terrors, sleepwalking, sleeptalking, and nightmares.
- Expanded discussion and updated research on the relationship between motor development, sports participation, and risk of overweight or obesity.
- Expanded discussion and updated research on the origins of handedness.
- Expanded discussion and updated research and statistics on obesity, including both global U.S. data on prevalence, causes, and recommended prevention strategies.
- Updated *Perspectives on Diversity* feature with current global data on prevalence and causes of mortality in the first 5 years of life.
- Updated discussion and research on undernutrition.
- Updated statistics for allergy prevalence in U.S. children.
- Expanded discussion and updated research and recommendations on the use of fluoride for the prevention of dental caries, including a critical analysis of research on fluoride toxicity.
- Updated global and U.S. statistics on accidental child injuries and deaths.
- Updated statistics and information on access to medical care for children living in poverty.
- Updated statistics on the influence of race and ethnicity on children's access to health care.
- Updated statistics on the prevalence and causes of homelessness in U.S. children.
- Updated statistics on the children's exposure to environmental contaminants.

Chapter 9 Cognitive Development in Early Childhood

- Expanded discussion and updated research on the understanding of causality in children.
- Expanded description of the development of the concept of identity in children.
- Expanded description of and updated research on animism.
- New information on long-term academic correlates of early number sense in children.

- Expanded description of irreversibility.
- New information on children's early understanding of mental states.
- Expanded description of and updated research on false beliefs, including links to other skills, neural correlates, and its relationship to lying.
- New section on distinguishing between appearance and reality.
- Added information on understanding fantastical elements in storybooks and the influence religious beliefs play.
- Updated information on the benefits of imaginative activities.
- Expanded discussion of and updated research on family influences, cultural influences, and neurological correlates of theory of mind development.
- New example of encoding.
- Expanded description of working memory, including information on the phonological loop, visuospatial sketchpad, and neurological correlation.
- Expanded discussion of and updated research on the development of executive control, its relationship to academic performance, and intervention programs for its improvement.
- New section on influences on memory retention.
- Updated research on the Flynn effect.
- Expanded discussion of and updated research on family influences on measured intelligence.
- New section on electronic media and cognitive processes.
- Expanded discussion of scaffolding and updated research illustrating its use in the classroom.
- Expanded discussion of fast mapping with the inclusion of updated research and an illustrative example.
- New section on private speech.
- Updated research on the development of literacy, including the impact of electronic devices.
- Updated research on the impact of compensatory preschool programs on child outcomes.
- Updated information on current funding status of universal preschool programs.
- Updated statistics on kindergarten attendance in the United States.
- Updated discussion of and research on kindergarten readiness and outcomes.
- New information on the differential influence of generic versus targeted praise on task perseverance.
- Coverage of understanding and regulating emotions separated into two distinct sections, expanded, and updated with current research.
- New information on cultural differences in the likelihood of feeling guilt, pride, and shame.
- Expanded discussion of and updated research on gender differences in children and on biological influences on gender development.
- New information on the development of transgender individuals.
- Expanded discussion of the consequences of differing reproductive strategies of men and women.
- Expanded discussion of the interaction between evolutionary and cultural processes in the determination of human behavior and psychology.
- Expanded discussion on Kohlberg's cognitive-developmental theory of gender and on gender schema theory.
- Updated research on family, peer, and cultural influences on gender socialization.
- Expanded discussion of and updated research on non-social play, with new information on reticent play.
- Expanded discussion of and updated research on the influence of gender on play styles.
- Expanded discussion of and updated research on cultural influences on play.
- New section on the adaptive functions of play.
- New information on negative outcomes associated with harsh parenting practices.
- Expanded discussion of and updated research on outcomes associated with the use of corporal punishment.
- New information on the use of and recommendations regarding corporal punishment in the U.S. educational system.
- Updated *Perspectives on Diversity* feature, with new information on U.S. and global prevalence in use of corporal punishment.
- Expanded cultural critique of Baumrind's parenting typology.
- Expanded discussion of and updated research on gender differences in aggression.
- New information on cultural influences on aggressive behavior.
- New section on fearfulness.

Chapter 10 Psychosocial Development in Early Childhood

- Updated research on cultural differences in self-definition.
- Expanded description of developmental changes in self-esteem from ages 5 to 7.
- Expanded discussion of and updated research on contingent self-esteem.

Chapter 11 Physical Development and Health in Middle Childhood

- Updated weight and height statistics for middle childhood in the United States, with new information on racial and ethnic variations.

- Updated and expanded statistics and discussion on the prevalence of and treatments for dental caries.
- Expanded discussion of and updated research on brain development in middle childhood.
- Expanded discussion of and updated research on nutritional needs and challenges in middle childhood, including new information on racial and ethnic differences in food consumption.
- Expanded discussion of and updated research on sleep statistics, needs, and problems in middle childhood.
- Updated statistics on activity levels in U.S. children.
- Expanded discussion of and updated research on the impact of recess.
- Updated statistics on participation in organized sports programs.
- Updated global and U.S. statistics for overweight and obesity in middle childhood.
- Updated research on the causes of obesity.
- Updated and expanded discussion on outcomes of childhood overweight and on the prevention and treatment of overweight.
- Expanded discussion of and updated research and statistics on childhood asthma, hypertension, and diabetes.
- Expanded discussion of and updated research on stuttering, including new information on neurological correlates.
- Updated statistics on accidental injuries.
- Updated research on childhood predictors of future antisocial behavior.
- Updated statistics on the prevalence of childhood depression.
- New information on the reasons for the rise of off-label drugs for the treatment of psychiatric conditions in children.
- Expanded discussion of selective attention.
- Expanded discussion of and updated research on working memory and on metamemory.
- New section on mnemonics.
- New information on the Otis-Lennon School Ability Test (OLSAT8).
- Updated research critiquing the meaning of IQ tests.
- Expanded discussion and critique of Gardner's theory of multiple intelligences.
- Expanded description of Sternberg's Triarchic Abilities Test, including new information on tacit knowledge.
- New section on other directions in intelligence testing.
- Expanded discussion of and updated research on the relationship between genes and brain development.
- Updated research and discussion on the influence of race and ethnicity on IQ.
- New section on the influence of schooling in IQ.
- Expanded discussion of the development of literacy, including new information on the role of metacognitive processes and technology on emerging literacy.
- Updated research on gender differences in academic performance.
- Expanded discussion of and updated research on parental and peer influence on academic performance and on the influence of socioeconomic status on academic achievement.
- Updated information on educational reform efforts in the United States.
- Expanded discussion of and updated research on the impact of class size.
- Updated research on charter schools and homeschooling outcomes.
- Expanded discussion of and updated research on computer and Internet usage in schools.
- Updated statistics and information on second-language learning.
- Updated statistics on special education services and intellectual disabilities in school-age children in the United States.
- Updated statistics and information on attention deficit/hyperactivity disorder, including diagnosis rates by race/ethnicity.
- Expanded description of and updated statistics for giftedness.
- Updated research on the causes and correlates of giftedness and creativity.

Chapter 12 Cognitive Development in Middle Childhood

- New section on developmental changes in the understanding of cause and effect.
- Expanded discussion of and updated research on seriation, transitive inferences, and class inclusion.
- Expanded discussion of and updated research on deductive reasoning.
- Expanded discussion of conservation.
- Expanded discussion on the development of an understanding of number and mathematics, including new information on number estimation and cultural context.
- New section on neurological development, culture, and schooling.
- Expanded discussion of and updated research on developmental influences on executive function.

Chapter 13 Psychosocial Development in Middle Childhood

- Expanded discussion of and updated research on emotional growth in middle childhood.

- Expanded discussion of and updated research on coregulation, including new information on cultural differences.
- Updated statistics and research on maternal employment, child care arrangements, and related outcomes.
- Updated statistics on U.S. child and family poverty rates.
- Updated research on outcomes related to child poverty.
- Updated statistics on family structure in the United States, with new information on the effect of father involvement on child outcomes.
- Updated statistics on U.S. divorce rates.
- Updated research on child outcomes associated with divorce and family conflict.
- Expanded discussion of and updated research on custody, visitation, and co-parenting.
- Updated research on long-term effects of divorce on children.
- Updated statistics and research on single-parent families, stepfamilies, and gay and lesbian families.
- Updated statistics, research, and discussion on cohabitating families.
- Expanded discussion of and updated research on adoption and outcomes of U.S. and foreign-born children.
- Expanded discussion of and updated research on sibling relationships, including new information on the influence of gender.
- New *Perspectives on Diversity* feature on bullying across the world.
- Expanded discussion of and updated research on peer relations, including new information on discrimination and the influence of group norms.
- Expanded discussion of and updated research on gender influences on peer groups.
- Expanded description of sociometric methodology.
- Expanded discussion of and updated research on correlates and outcomes of popularity, including new information on family and cultural influences.
- Expanded discussion of and updated research on friendship.
- Updated research on aggression and bullying.
- New section on aggression and social information processing.
- Expanded discussion of and updated research on the influence of media and electronics on aggression.
- Expanded discussion of and updated research on bullies and victims, including new information on cyberbullying.
- Expanded discussion and updated statistics on menarche.
- Expanded discussion of and updated research on influences on pubertal timing, with new information on the role of leptin and environmental toxins.
- Expanded discussion of and updated research on implications of early and late maturation.
- Expanded discussion of and updated research on brain development in adolescence and its consequences.
- New information on adolescent global health statistics.
- Updated statistics on physical activity in adolescence.
- Expanded discussion of and updated research on sleep needs and problems, with new information on racial and ethnic differences in sleep patterns and on negative outcomes associated with sleep deprivation.
- New section on prevalence of overweight and obesity, including both global and U.S. data.
- New section on causes and consequences of overweight and obesity.
- Expanded discussion of and updated research on body image and eating disorders, with new information on racial and ethnic differences in prevalence rates, global variations in prevalence rates, and peer influences.
- New information on binge eating disorder.
- Updated research on treatment outcomes for eating disorders.
- Updated statistics on adolescent trends in drug use and on drug and alcohol treatment rates.
- Updated and expanded statistics on global and U.S. trends in adolescent alcohol use.
- New information on the effect of alcohol on the developing brain.
- Updated statistics on marijuana usage, including new information about the effect of legalization on usage.
- Updated and expanded statistics on the use of tobacco products in adolescence.
- New section on the initiation of nicotine and alcohol use.
- Updated research on depression.
- New global statistics on death in adolescence and updated statistics for the United States.
- Updated statistics on deaths from motor accidents, with new information on the impact of distracted driving.
- Expanded discussion on and updated research for firearm-related deaths.
- Updated research and statistics on suicide.

Chapter 14 Physical Development and Health in Adolescence

- Updated and expanded statistics on timing of puberty by race/ethnicity.

Chapter 15 Cognitive Development in Adolescence

- New critique of Elkind's model of adolescent thought.
- Added information on the sequence in which various cognitive skills come on line.
- Revision of critique of Kohlberg's theory of moral development.

- Expanded discussion of and updated research on prosocial behavior and volunteer activity, with new information on cultural and peer influences.
- Expanded and updated statistics on U.S. students' academic achievement and graduation rates.
- Updated research on student motivation and self-efficacy.
- Updated research on adolescent brain differences between girls and boys.
- Updated statistics on doctoral degrees awarded by gender in the United States.
- Expanded discussion and updated research and statistics on the influence of technology on academic skills, including new information on the impact of multitasking on cognition.
- Updated research on the influence of parenting practices and peers on academics.
- Updated statistics on high school status dropout rate.
- Expanded discussion of and updated research on consequences of dropping out of high school.
- Updated research and discussion of the impact of gender on career goals.
- Added information on reasons some students select not to go to college.
- Expanded discussion of and updated research on the impact of working during high school on academics.
- Added information on global prevalence rates for sexually transmitted infections and updated statistics on U.S. rates.
- Expanded discussion of and updated research on human papilloma virus, including new information on vaccine effectiveness and fears of adverse side effects.
- Updated statistics for chlamydia, gonorrhea, and genital herpes, and updated statistics and expanded discussion for trichomoniasis.
- New information on hepatitis B.
- Updated statistics and research on human immunodeficiency virus (HIV).
- Added information on global adolescent pregnancy statistics, and updated research for the United States.
- New sections on outcomes of teen pregnancy and on preventing teen pregnancy.
- Expanded discussion of and updated research on individuation, with new information on cultural differences.
- Expanded discussion and critique of the influence of parenting styles.
- Expanded discussion of and updated research on parenting monitoring and self-disclosure, with new information on cultural variations.
- Expanded discussion of and updated research on the influence of family structure and atmosphere, with new information on gay and lesbian parents.
- Expanded discussion of and updated research on the impact of maternal employment.
- Expanded discussion of and updated research on adolescents and siblings.
- Updated research on the importance of friends.
- Updated statistics, discussion, and research on the social consequences of electronic communication.
- Updated research and discussion on romantic relationships, including new information on the impact of technology and electronic media.
- Updated research and statistics on dating violence.
- Expanded discussion of and updated research on biological influences on antisocial behaviors, including new information on physiological and neurological correlates.
- Updated research and discussion on family influences on antisocial behavior.
- Expanded discussion of and updated research on environmental influences on antisocial behavior.
- New section on long-term prospects for adolescents with antisocial behavior.
- Expanded discussion of and updated research on preventing and treating teen delinquency.
- Expanded discussion of cultural changes in the United States leading to the new developmental stage of emerging adulthood.

Chapter 16 Psychosocial Development in Adolescence

- Updated research on and expanded discussion and critique of Gilligan's theory of identity development in women.
- Expanded discussion of and updated research on ethnic factors in identity development, with new information on the impact of perceived discrimination and cultural socialization.
- New self-report data on same-sex experiences and sexual orientation in adolescence.
- Expanded discussion of and updated research on the origins of sexual orientation, including new material on the 2D:4D ratio.
- Expanded discussion of and updated research on homosexual and bisexual identity development, including new information on the process of coming out.
- Updated statistics on U.S. adolescent sexual behavior.
- Expanded discussion of and updated research on sexual risk taking, including new information on the influence of religiosity.
- Expanded discussion of and updated research on sexting.
- Updated statistics and research on the use of contraceptives.
- Expanded discussion of and updated research on sex education, including the addition of new information on the impact of media influences.

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From Gabi Martorell: Thank you to my family, for encouraging and supporting me while picking up the slack that allowed me to fit in writing around our already crazy lives.

Chapter

1

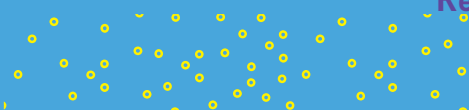
Introduction to Child Development



What's to Come

- > The Study of Child Development
- > Influences on Development
- > Issues in Development
- > Theories of Child Development

Research Methods





In 1877, a young father sat gazing at his newborn son and, pen in hand, took careful notes on his child's behaviors. "During the first seven days various reflex actions, namely sneezing, hiccupping, yawning, stretching, and of course sucking and screaming, were well performed by my infant," the proud new father wrote. "On the seventh day, I touched the naked sole of his foot with a bit of paper, and he jerked it away, curling at the same time his toes, like a much older child when tickled. The perfection of these reflex movements shows that the extreme imperfection of the voluntary ones is not due to the state of the muscles or of the coordinating centres, but to that of the seat of the will."

The young Charles Darwin who theorized about his son's motor capacities was one of the first members of the field of child development. Although modern-day researchers are more likely to use electrodes to view the pattern of brain activation in a baby, show them computerized scenarios of imaginary events, or analyze microexpressions on a videotape, they share with Darwin an interest in the changes that emerge in childhood with extraordinary speed and organization. In this chapter, we outline the basics of the field of child development. We discuss how development is conceptualized, some major influences on development, and recurrent issues in the field. Last, we address the major theoretical perspectives and touch on how scientific data are collected.



The Study of Child Development

Development begins at the moment of conception, and it does not cease until death. From the moment of conception, a single cell divides, and divides again, over and over, in an orchestrated, organized fashion. Although each child born of this process is a unique individual, development is nonetheless patterned and orderly and follows a blueprint laid out by our evolutionary history. Eventually, a living, breathing, squalling infant is born into our vast world and begins both to be influenced by and to influence the space around him or her. Babies grow, and become children, and then adolescents, and then adults. It is not until the heart ceases beating and the neurons of the brain stop firing that our stories end. This book is about the beginning chapters of that story.

child development The scientific study of processes of change and stability in human children.

social construction Concept about the nature of reality based on societally shared perceptions or assumptions.

The field of **child development** focuses on the scientific study of systematic processes of change and stability in human children. Developmental scientists look at ways in which children change from conception through adolescence and at characteristics that remain fairly stable. The study of child development is part of the broader

study of human development, which covers the entire human life span from conception to death, and is organized around periods and domains of development.

THE FIELD OF CHILD DEVELOPMENT

While attempts to understand development have a long history, the scientific study of child development is a relatively new field. The first formal efforts to study the development of children involved "baby biographies," such as Charles Darwin's (1877) description of the difference between his infant son's voluntary and reflexive motor responses quoted at the beginning of this chapter. Although he is best known for evolutionary theory, Darwin kept careful records of his son's development, using them as a springboard for the development of his psychological theories. Other parent-scientists, such as philosopher Dietrich Tiedemann (1787) and developmental psychologist Jean Piaget (1954), kept similar diaries.

In the years following the development of baby diaries, scores of researchers followed in Darwin's footsteps, and more than 30 baby diaries were published in scientific journals (Dennis, 1936). While such efforts served a valuable purpose in that they allowed these scholars to develop ideas and introduced the scientific community to the concept of development as a field of inquiry, they had limited value outside of that. For instance, it is difficult to remain objective when describing one's own child, and what is true of one infant may not be true of all infants. Thus, as the field of child development matured, more scientifically rigorous approaches were used.

Contemporary researchers now use a wide variety of techniques to study children. Modern tools include sensitive instruments that measure eye movements, heart rate, blood pressure, muscle tension, and the like, illuminating previously hidden biological influences. Digital technology, including sensitive video recordings and computer-based analyses, allow researchers to scan babies' facial expressions in minute detail, or carefully analyze how caregivers and babies communicate with each other. Brain imaging techniques allow us to investigate the basis of our thought and behaviors at the neural level. All these advances are grounded in the scientific method, the organized body of methods developed by scientists to investigate the world. Much of this chapter will be focused on describing these techniques and how they are implemented in the study of development.

The scientific method, however, is not enough. Research must be grounded in theory. Theories are the lenses through which data are viewed and understood. They tell us what questions to ask, where to look for answers, and how to interpret what we find. Thus, this chapter will also outline the most important theoretical approaches that have shaped our understanding.

PERIODS OF DEVELOPMENT

Division of the life span into periods of development is a **social construction**: a concept or practice that is an invention of a particular culture or society. There is no objectively

definable moment that an infant becomes a toddler, or a child becomes an adolescent, and indeed some age-related concepts may exist in some cultures, but be absent in others. For example, in many preindustrial societies, the concept of adolescence does not exist. What we consider to be adolescence is viewed as part of adult life.

In *Child*, we follow a sequence of five periods generally accepted in Western industrial societies. After examining the crucial changes that occur in the first period, before birth, we trace physical, cognitive, and psychosocial development through infancy, toddlerhood, early childhood, middle childhood, and adolescence (Table 1.1).

DOMAINS OF DEVELOPMENT

Developmental scientists study three broad domains, or areas, of the self—physical, cognitive, and psychosocial—in the different periods of development. **Physical development** includes growth of the body and brain, sensory capacities, motor skills, and health. **Cognitive development** includes learning, attention, memory, language, thinking, reasoning, and creativity. **Psychosocial development** includes emotions, personality, and social relationships. How and what behaviors are studied may reflect a researcher’s stand on basic issues in the field.

For the sake of simplicity, *Child* is organized so each domain is addressed separately within the periods of child development defined earlier. However, child development is a complex and tangled spiderweb of multiple influences, and understanding these influences requires looking at them from multiple perspectives. Just as a fly caught on one thread of a web sends reverberations across the entire structure, development in one area sends ripples though all other areas. For example, a child with frequent ear infections may develop language more slowly than a child without this physical problem, and the failure to develop language may lead to feelings of frustration because of the difficulty in communicating with others. Thus, scholars of child development draw collaboratively from a wide range of disciplines, including psychology, psychiatry, sociology, anthropology, biology, genetics, education, history, and medicine.



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WHAT DO YOU DO?

Early Childhood Education Teacher

Early childhood education teachers support children’s early development in the classroom, focusing on infancy and toddlerhood. These teachers plan classrooms that encourage exploration and learning, lead developmentally appropriate activities, and guide their students. Early childhood education teachers may work in private or public schools. Often only an associate’s degree is required to work in private settings, though lead teachers typically have at least a bachelor’s degree. In public schools, early childhood education teachers must meet the licensure requirements to teach preschool through third grade of the particular state, which generally include a bachelor’s degree, practicum or internship, and passage of state exams. To learn more about what an early childhood teacher does, visit www.naeyc.org.

Child includes findings from research in all these fields. Throughout the text, links between the three major domains of development will be highlighted.

Influences on Development

“I feel sure, from what I have seen with my own infants, that the period of development of the several faculties will be found to differ considerably in different infants,” wrote Darwin. He was referring to what are now known as **individual differences**—that is, differences among children in characteristics, influences, or developmental outcomes. Children differ in a range of areas, from gender to body build to energy level to personality. Heredity, environment, maturation, the contexts of their lives, and normative and nonnormative influences can impact how they develop. The timing of these variables is also a factor in development.

HEREDITY, ENVIRONMENT, AND MATURATION

Influences on development can be described in two primary ways. Some influences are internal and driven by heredity. Heredity can be conceptualized as the genetic roll of the dice. It consists of the inborn traits and characteristics provided by a child’s biological parents. Other influences stem from outside the body, starting with the prenatal environment in the womb and continuing throughout life. The relative influence of nature (heredity and biological processes) and nurture (environmental influences) is fiercely debated, and theorists differ in the weight they assign to each.

Scientists have found ways to measure the contributions of nature and nurture to the development of specific traits within a population. For example, even though heredity strongly affects intelligence, environmental factors such as parental stimulation, education, and peer influences also affect it. Contemporary theorists and researchers are increasingly interested in explaining how nature and nurture work together rather than in arguing about which factor is more important.

Many typical changes of infancy and early childhood, such as the emergence of the abilities to walk and talk, are tied to **maturation** of the body and brain—the

physical development

Growth of body and brain, including biological and physiological patterns of change in sensory capacities, motor skills, and health.

cognitive development

Pattern of change in mental abilities, such as learning, attention, memory, language, thinking, reasoning, and creativity.

psychosocial development





Pattern of change in emotions, personality, and social relationships.

individual differences

Differences among children in characteristics, influences, or developmental outcomes.

maturation Unfolding of a universal natural sequence of physical and behavioral changes.

TABLE 1.1 Five Periods of Child Development

Age Period	Physical Developments	Cognitive Developments	Psychosocial Developments
<p><i>Prenatal Period</i> (conception to birth)</p>	<ul style="list-style-type: none"> • Conception occurs by normal fertilization or other means. The genetic endowment interacts with environmental influences from the start. 		
<p><i>Infancy and Toddlerhood</i> (birth to age 3)</p>  <p>©Elke Van de Velde/Getty Images</p>	<ul style="list-style-type: none"> • Basic body structures and organs form; brain growth spurt begins. Physical growth is the most rapid in the life span. • Vulnerability to environmental influences is great. 	<ul style="list-style-type: none"> • Abilities to learn and remember and to respond to sensory stimuli are developing. 	<ul style="list-style-type: none"> • Fetus responds to mother's voice and develops a preference for it.
<p><i>Early Childhood</i> (ages 3 to 6)</p>  <p>©Rubberball Productions</p>	<ul style="list-style-type: none"> • Growth is steady; appearance becomes more slender and proportions more adultlike. • Appetite diminishes, and sleep problems are common. • Handedness appears; fine and gross motor skills and strength improve. 	<ul style="list-style-type: none"> • Ability to learn and ability to remember are present, even in the early weeks. • Use of symbols and ability to solve problems develop by end of 2nd year. • Comprehension and use of language develop rapidly. • Thinking is somewhat egocentric, but understanding of other people's perspectives grows. • Cognitive immaturity results in some illogical ideas about the world. • Memory and language improve. • Intelligence becomes more predictable. • Preschool experience is common, and kindergarten experience is more so. 	<ul style="list-style-type: none"> • Attachment to parents and others forms. • Self-awareness develops. • Shift from dependence to autonomy begins. • Interest in other children increases. • Gender identity develops. • Self-concept and understanding of emotions become more complex; self-esteem is global. • Independence, initiative, and self-control increase. • Play becomes more imaginative, more elaborate, and usually more social. • Altruism, aggression, and fearfulness are common. • Family is still the focus of social life, but other children become more important.
<p><i>Middle Childhood</i> (ages 6 to 11)</p>  <p>©Nicole Hill/Rubberball/Getty Images</p>	<ul style="list-style-type: none"> • Growth slows. • Strength and athletic skills improve. • Respiratory illnesses are common, but health is generally better than at any other time in life span. 	<ul style="list-style-type: none"> • Egocentrism diminishes. Children begin to think logically but concretely. • Memory and language skills increase. • Cognitive gains permit children to benefit from formal schooling. Some children show special educational needs and strengths. 	<ul style="list-style-type: none"> • Self-concept becomes more complex, affecting self-esteem. • Coregulation reflects gradual shift in control from parents to child. • Peers assume greater importance.
<p><i>Adolescence</i> (ages 11 to about 20)</p>  <p>©Rubberball/Getty Images</p>	<ul style="list-style-type: none"> • Physical growth and other changes are rapid and profound. • Reproductive maturity occurs. • Major health risks arise from behavioral issues, such as eating disorders and drug abuse. 	<ul style="list-style-type: none"> • Ability to think abstractly and use scientific reasoning develops. • Immature thinking persists in some attitudes and behaviors. • Education focuses on preparation for college or vocation. 	<ul style="list-style-type: none"> • Search for identity, including sexual identity, becomes central. • Relationships with parents are generally good. • Peer group may exert a positive or negative influence.

unfolding of a universal, natural sequence of physical changes and behavior patterns. These maturational processes, which are seen most clearly in the early years, act in concert with the influences of heredity and environment. As children grow into adolescents and adults, individual differences in innate personal characteristics (heredity) and life experience (environment) play an increasing role as they adapt to the internal and external conditions.

CONTEXTS OF DEVELOPMENT

In Victorian England, fathers were generally remote figures and did not typically take part in child care activities. However, Charles Darwin was different. By all accounts he was a loving and involved father. His daughter described him as “the most delightful play-fellow, and the most perfect sympathizer.” Modern-day fathers in the United States show a wider range of involvement; some fathers are completely absent from family life, some are closely involved with caregiving, and some even take on the role of a stay-at-home parent.

For a child, the immediate context normally is the family; the family in turn is subject to the wider and ever-changing influences of neighborhood, community, and society. How might the family experiences of Darwin’s children have shaped them? And how would the wider societal norms interact with their immediate family environment?



For many children, the immediate context of development is the family. Since the 1980s, the number of people in the United States living in multigenerational households has steadily increased.

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Family

What type of family did you grow up in? If you lived with two parents, you were part of a nuclear family. The **nuclear family** is a household unit generally consisting of one or two parents and their children, whether biological, adopted, or stepchildren. Historically, the two-parent nuclear family has been the most common family unit in the United States and other Western societies. In 1960, 37 percent of households were composed of nuclear families. In 2014, only 16 percent of households could be described as such. The modern family structure is becoming increasingly diverse. We now see families of single or divorced parents, households that may include a stepparent and stepsiblings or a parent’s live-in partner, and an increasing number of unmarried parents, gay and lesbian households with children, and mixed race households (Krogstad, 2014).

In Asia, Africa, and Latin America and among some U.S. families that trace their lineage to those countries, the **extended family**—a multigenerational kinship network of grandparents, aunts, uncles, cousins, and more distant relatives—is the traditional family form (Johnson et al., 2003). Today the extended-family household is becoming slightly less typical in some developing countries due to industrialization and migration to urban centers (Kinsella & Phillips, 2005). In the United States, however, economic pressures, housing shortages, and out-of-wedlock childbearing have helped to fuel a trend toward three- and even four-generational family households. In 2014, a record 19 percent of the U.S. population, or 60.6 million people, lived in multigenerational families. This number has been steadily increasing since the low reached in the early 1980s (Cohn & Passel, 2016).

nuclear family Two-generational household unit consisting of one or two parents and their biological children, adopted children, or stepchildren.

extended family Multigenerational kinship network of parents, children, and other relatives, sometimes living together in an extended-family household.

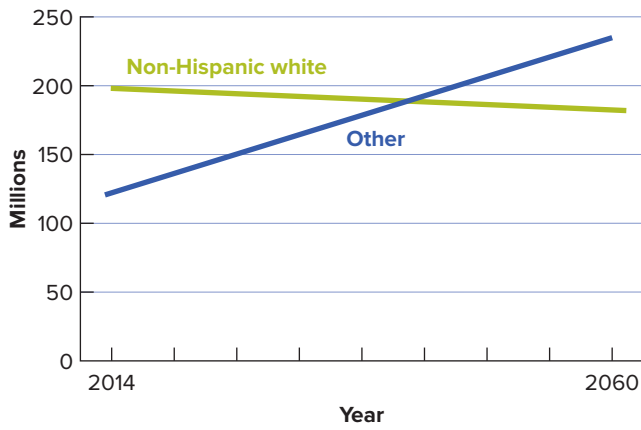
culture A society’s or group’s total way of life, including customs, traditions, beliefs, values, language, and physical products—all learned behavior passed on from adults to children.

ethnic group A group united by ancestry, race, religion, language, or national origin that contributes to a sense of shared identity.

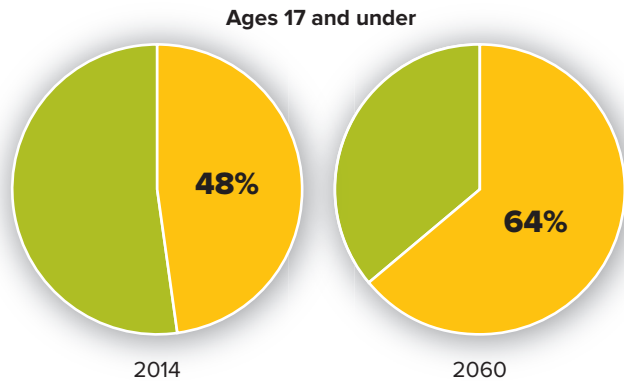
Culture, Ethnicity, and Race

Culture, ethnicity, and race can influence child development. **Culture** refers to a society’s or group’s total way of life, including customs, traditions, laws, knowledge, beliefs, values, language, and physical products, from tools to artworks—all the behavior and attitudes that are learned, shared, and transmitted among members of a social group. Culture is constantly changing, often through contact with other cultures. Today, computers and telecommunications enhance cultural contact among adults and children alike; e-mail and social networking sites offer almost immediate communication across the globe.

An **ethnic group** consists of people united by a distinctive culture, ancestry, religion, language, or national origin, all of which contribute to a sense of shared identity and shared attitudes, beliefs, and values. Within large societies, ethnic groups



(a) Population projections



(b) Percent minority children

FIGURE 1.1 U.S. Ethnic Minority Population Projections: 2014–2060

(a) According to Census Bureau projections, non-Hispanic whites are expected to remain the largest single racial and ethnic group in the United States, but beginning in about 2044, the group will make up less than 50% of the total U.S. population. In 2060, racial and ethnic minorities as a group are expected to make up 56% of the total population. (b) Also by 2060, “minority” children are expected to make up 64% of the total child population.

Source: S. L. Colby & J. M. Ortman, *Projections of the size and composition of the U.S. population: 2014 to 2060*. P25–1143. Washington, DC: U.S. Census Bureau, 2015.

may also be characterized by minority status. Ethnic minorities are those ethnic groups that have national or cultural traditions different from the majority of the population, and they are often affected by prejudice and discrimination. By 2044, due to rising immigration and high birthrates among immigrant families, ethnic minorities in the United States—roughly one-third of the population in 2008—are expected to become the majority (Colby & Ortman, 2015; Figure 1.1a and 1.1b). Geographic dispersion and adaptation to local conditions together with a steady rise in interracial marriages—in 2015, 1 in 6 new marriages in the United States was between people of different races (Bialik, 2017)—have produced a wide variety of physical and cultural characteristics within populations. According to a 2015 estimate, 2.6 percent of the U.S. population is of two or more races (United States Census Bureau, 2016).

Ethnic and cultural patterns affect child development by their influence on the composition of a household, its economic and social resources, the way its members act toward one another, the foods they eat, the games children play, the way they learn, how well they do in school, the occupations adults engage in, and the way family members think about and perceive the world. In time, however, immigrants tend to learn the language, customs, and attitudes needed to get along in the dominant culture, although many preserve some of their unique cultural practices and values (Johnson et al., 2003). *Perspectives on Diversity* explores characteristics of immigrant families in the United States.

It is worth considering what we mean when we speak of race. All humans belong to the same taxonomic

classification—*Homo sapiens*. However, there are important differences in outward appearance of people from different geographical regions—note, for instance, the different skin color of people from northern European countries and from Africa.

socioeconomic status (SES) Combination of economic and social factors, that describe an individual or family, including income, education, and occupation.

These salient differences have led people to speak of individuals as being of different races. However, there is no clear scientific consensus on the definition of race, and it is impossible to measure reliably (Bonham, Warshauer-Baker, & Collins, 2005; Sternberg, Grigorenko, & Kidd, 2005). Human genetic variation occurs along a broad continuum, and 90 percent of such variation occurs *within* rather than *among* socially defined races (Ossorio & Duster, 2005). In other words, the differences between two people on the opposite ends of a distribution within one race are larger than the differences between two people of different races. Nevertheless, race as a social category clearly remains a factor in research because it makes a difference in “how individuals are treated, where they live, their employment opportunities, the quality of their health care, and whether [they] can fully participate” in their society (Smedley & Smedley, 2005, p. 23).

It is also worth noting that across broad ethnic and racial dimensions, there is still vast diversity within the categories themselves. For example, the term “Hispanics” encompasses a variety of different types of people: Cuban Americans; Central Americans, including Mexicans; South Americans; and those Hispanics who were born in the United States. Moreover, within these groupings, individuals may be white, black, Native American, or of mixed descent. When a term such as “Hispanics” is used to describe this diverse group as a single entity, this is known as ethnic gloss. Ethnic gloss is an overgeneralization that obscures or blurs variations within heterogeneous groups.

Socioeconomic Status and Neighborhood

A family’s **socioeconomic status (SES)** is based on family income, and the educational and occupational levels of the adults in the household. Throughout *Child*, we examine many studies that relate SES to developmental processes, such as mothers’ verbal interactions with their children, and

Perspectives on Diversity



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CHILDREN OF IMMIGRANT FAMILIES

The United States has always been a nation of immigrants and ethnic groups, but the primary ethnic origins of the immigrant population have shifted from Europe and Canada to Latin America, the Caribbean, Asia, and Africa. In 2009, about 80 percent of foreign-born families were from countries in Latin America and Asia (Greico & Trevalyan, 2010). Nearly one-fourth (24 percent) of U.S. children lived in immigrant families in 2007. The legal status of many immigrant families is uncertain. Approximately 5.1 million children under the age of 18 years—30 percent of children of immigrants and 7 percent of all children—have at least one parent who is unauthorized, although most (79 percent) of the children are themselves U.S. citizens (Capps, Fix & Zong, 2016). Faster growing than any other group of children in the country, children in immigrant families are the leading edge of the coming shift of racial and ethnic minorities to majority status. Whereas earlier waves of immigrants were almost entirely white and Christian, more than one-third (37 percent) of children in immigrant families have nonwhite parents. More immigrants come from Mexico (30 percent) than from any other country (www.census.gov). An estimated 5 million

Mexican-born children or children of Mexican-born parents live in the United States.

Poverty is higher in children from immigrant families. Fifty-one percent of immigrant children live in poverty, as compared with 40 percent of all children in the United States. Having undocumented parents is an even greater risk; 75 percent of these children live in poverty (Capps et al., 2016). Access to health care is also an issue. While the implementation of the Affordable Care Act (ACA) led to significant gains in health care access for children in immigrant families, their health insurance coverage rates still lag behind those of children with nonimmigrant parents. Immigrant children with noncitizen parents show the lowest rates of all groups (Jarlski, Baller, Borrero & Bennett, 2016). The future of the ACA is unclear in the Trump administration, as is the effect its repeal might have on children's health insurance coverage (Chaudry & Wimer, 2016).

As immigration fuels dramatic changes in the United States population, developmental issues affecting children in immigrant families will become increasingly important areas of research.

Sources: Unless otherwise cited, the source for this box is Hernandez, Denton, & Macartney (2008).

to developmental outcomes, such as health and cognitive performance. SES affects these processes and outcomes indirectly through the kinds of homes and neighborhoods people live in and the quality of nutrition, medical care, and schooling available to them.

Poverty is a problem worldwide. Although numbers have fallen by 1.1 billion since 1990, more than 757 million people lived on less than \$1.90 a day in 2013. While countries such as China, Indonesia, and India have enjoyed some success in their efforts to eliminate poverty, sub-Saharan Africa lags behind and struggles greatly with this issue (World Bank, 2016). The decline in poverty is in large part due to the expanding global economy (United Nations, 2009). Still, too many children and families remain affected by poverty.

Poverty is also an issue in the United States (Figure 1.2). The number of children living in poor or low-income families increased during the recession of 2008 (Jiang, Ekono & Skinner, 2015). Currently, approximately

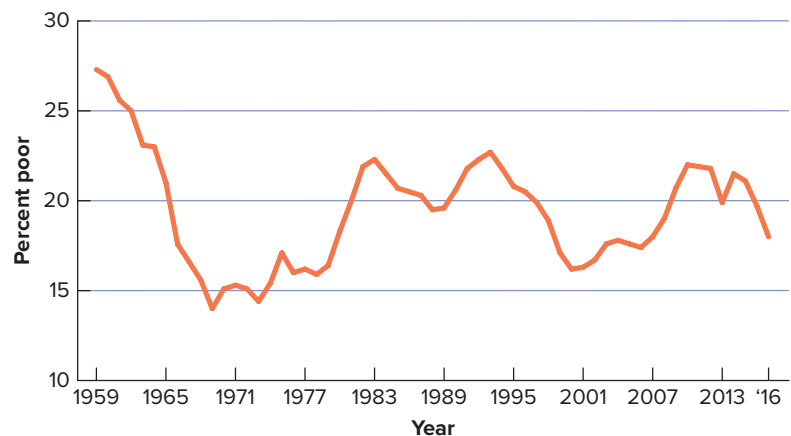


FIGURE 1.2 Child Poverty Rates—United States: 1959–2016

The child poverty rate dropped substantially in the 1960s, then rose significantly in the early 1980s. Great strides were made in decreasing child poverty in the late 1990s, owing in part to the strong economy. However, the child poverty rate began to rise again in 2007. Child poverty is closely tied to the overall health of the economy, rising in periods of recession.

Source: J. L. Semega, K. R. Fontenot, & M. A. Kollar, *U.S. Census Bureau, current population reports, P60–259, income and poverty in the United States: 2016*. Washington, DC: U.S. Government Printing Office, 2017.

risk factors Conditions that increase the likelihood of a negative developmental outcome.

normative Characteristic of an event that occurs in a similar way for most people in a group.

nonnormative Characteristic of an unusual event that happens to a particular person or a typical event that happens at an unusual time of life.

20 percent of children under the age of 18 live in poverty, and more than 40 percent of those children live in extreme poverty, defined as living on less than \$2 per day per person (Children's Defense Fund, 2017). In total, about 18.5 million people in the United States live in poverty, and children comprise 6 million of those affected (Semega, Fontenot & Kollar, 2017). Although children from middle- and lower-income families are not as negatively affected as those below the poverty line, they

nonetheless are at a disadvantage relative to wealthy peers with respect to employment insecurity and income inequality (Foundation for Child Development, 2015). In the United States, race or ethnicity are often associated with socioeconomic status. African American children, Asian and Pacific Islanders, and Hispanic children are more likely to live in poverty than their white counterparts (Kids Count Data Center, 2017).

Poverty is stressful and can damage children and families' physical, cognitive, and psychosocial well-being. Poor children are more likely than other children to go hungry,

to have frequent illnesses, to lack access to health care, to experience violence and family conflict, and to show emotional or behavioral problems (Coleman-Jensen, Nord, Andrews & Carlson, 2011; Schickedanz, Dreyer & Halfon, 2015; Eckenrode, Smith, McCarthy & Dineen, 2014; Yoshikawa, Aber & Beardsley, 2012). Their cognitive potential and school performance suffer as well (Wolf, Magnuson & Kimbro, 2017; Hair, Hanson, Wolfe & Pollak, 2015).

The harm poverty does is often indirect through its impact on parents' emotional state and parenting practices and on the home environment they create. Threats to well-being multiply if, as often happens, several **risk factors**, conditions that increase the likelihood of a negative outcome, are present. Moreover, the earlier poverty begins, the longer it lasts, and the higher the concentration of poverty in the community in which children live, the worse the outcomes for those children are (Chaudry & Wimer, 2016).

The composition of a neighborhood affects the way children develop. Living in a neighborhood with large numbers of poor people has been shown to impact physical health, well-being, and school readiness (Chaudry & Wimer, 2016; Cushon, Vu, Janzen & Muhajarine, 2011). Positive development can occur despite serious risk factors, however (Kim-Cohen, Moffitt, Caspi, & Taylor, 2004). For example, parents in poor families report being just as close to their children, they attend church with their families just as often, and they eat meals together as a family more often than wealthier families (Valladares & Moore, 2009). Strong family ties can also buffer children against the negative effects of poverty. Consider television star Oprah Winfrey, singer/songwriter Shania Twain, musician/producer Jay-Z, singer Justin Bieber, and former U.S. President Bill Clinton, all of whom grew up in poverty.

One example of a normative age-graded influence might be the type of music that is popular during adolescence for a particular cohort.

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The Historical Context

At one time developmental scientists paid little attention to historical context—the time in which people live. Then, as the early longitudinal studies of childhood extended into the adult years, investigators began to focus on how certain experiences, tied to time and place, affect the course of people's lives. For example, because of the severe economic recession, record numbers of families moved in with relatives, leading to the largest increase in multigenerational families in modern history (Pew Research Center, 2010). This shift in family structure affects the influences to which children are exposed. Today, as we discuss in the next section, historical context is an important part of the study of child development.

NORMATIVE AND NONNORMATIVE INFLUENCES

To understand similarities and differences in development, we need to look at **normative** influences, biological or environmental events that affect many or most people in a society in similar ways, and at **nonnormative** influences,

events that touch only certain individuals (Baltes & Smith, 2004).

Normative age-graded influences are highly similar for people in a particular age group. The timing of biological events is fairly predictable within a normal range. For example, children do not experience puberty at age 3 or menopause at 12.

Normative history-graded influences are significant events (such as the Hurricane Katrina or the Japan tsunami) that shape the behavior and attitudes of a **historical generation**, a group of people who experience the event at a formative time in their lives. For example, the generations that came of age during the Depression and World War II tend to show a strong sense of social interdependence and trust that has declined among more recent generations (Rogler, 2002).

A historical generation is not the same as an age **cohort**, a group of people born at about the same time who experience similar influences. A historical generation may contain more than one cohort, but not all cohorts are part of historical generations unless they experience major, shaping historical events at a formative point in their lives (Rogler, 2002).

Nonnormative influences are unusual events that have a major impact on individual lives because they disturb the expected sequence of the life cycle. They are either typical events that happen at an atypical time of life, such as the death of a parent when a child is young, or atypical events, such as surviving a plane crash.

Taken together, the three types of influences—normative age-graded, normative history-graded, and nonnormative—contribute to the complexity of human development as well as to the challenges people experience in trying to build their lives.

TIMING OF INFLUENCES: CRITICAL OR SENSITIVE PERIODS

Konrad Lorenz (1957), an Austrian zoologist, got newborn ducklings to follow him as they would a mother duck. Lorenz showed that newly hatched ducklings will instinctively follow the first moving object they see. This phenomenon is called **imprinting**, and Lorenz believed it is automatic and irreversible. Usually, this instinctive bond is with the mother; but if the natural course of events is disturbed, other attachments, like the one to Lorenz—or none at all—can form. Imprinting, said Lorenz, is the result of a predisposition toward learning, the readiness of an organism's nervous system to acquire certain information during a brief critical period in early life.

A **critical period** is a specific time when a given event, or its absence, has a specific impact on development. If a necessary event does not occur during a critical period of maturation, normal development will not occur, and the resulting abnormal patterns are generally irreversible (Kuhl, Conboy, Padden, Nelson, & Pruitt, 2005).

Do human children experience critical periods as ducklings do? One example of a critical period occurs

during gestation. If a woman receives X-rays, takes certain drugs, or contracts certain diseases at certain times during pregnancy, the fetus may show specific ill effects, depending on the nature of the shock and on its timing.

For example, exposure to rubella (measles) when the heart is forming will damage heart structure. However, this type of damage cannot occur after the heart has already been formed. Many environmental influences may affect development irreversibly after pregnancy as well. If a muscle problem interfering with the ability to focus both eyes on the same object is not corrected within a critical period early in childhood, depth perception probably will not develop normally (Bushnell & Boudreau, 1993).

The concept of critical periods in humans is controversial. Because many aspects of development, even in the biological/neurological domain, have been found to show **plasticity**, or modifiability of performance, it may be more useful to think about **sensitive periods**, when a developing person is especially responsive to certain kinds of experiences (Bruer, 2001).

historical generation A group of people strongly influenced by a major historical event during their formative period.

cohort A group of people born at about the same time.

imprinting Instinctive form of learning in which, during a critical period in early development, a young animal forms an attachment to the first moving object it sees, usually the mother.

critical period Specific time when a given event or its absence has a profound and specific impact on development.

plasticity Modifiability of performance.

sensitive periods Times in development when a given event or its absence usually has a strong effect on development.

Did you know?

The most critical time for a pregnancy is the first trimester when the major structures of the body are forming. Therefore, any adverse substances encountered during this time can profoundly affect the developing fetus. However, many women do not realize at first that they are pregnant. Luckily, nature has provided us with a safety net—the lack of a shared blood supply for approximately two weeks after conception diminishes the likelihood of exposure.



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Issues in Development

Psychology is in many ways an outgrowth of philosophy, and just as philosophers ask basic questions about human nature, so do psychologists. Indeed, many of the ancient philosophical debates are echoed in the current controversies in psychology. What drives development? Is nature more important than nurture, or vice versa? Is development active or passive? Continuous or discontinuous? Different explanations, or models, of development have emerged out of debates over these issues.