

SIXTH EDITION

# Child and Adolescent Development

A Chronological Approach



Megan Clegg Kraynok • Kelvin L. Seifert  
Robert J. Hoffnung

**SIXTH EDITION**

# **Child and Adolescent Development: A Chronological Approach**

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# To our families

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***k.l.s.***

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Burbank*

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# Preface

When we began planning this sixth edition of *Child and Adolescent Development*, our conversations kept coming back to the idea of continuity and change—for in a sense, that is what revising a text is all about. You will find many continuities between this edition and previous editions. However, there is also a great deal of new information and current research. Our major goal of this revision was to maintain and strengthen the story of continuity and change from conception to emerging adulthood, alluding to continued changes throughout adulthood when appropriate. To achieve this goal, we have organized our presentation throughout the text to emphasize four developmental themes:

- *Continuity Within Change*, which looks for continuities in the person that may be hidden by more obvious long-term changes of maturation and evolving life circumstances;
- *Lifelong Growth*, which focuses on the potential for growth at all stages of development;
- *Changing Meanings and Vantage Points*, which considers how universal experiences, such as work, play, love, and sex, take on different meanings at different stages of development; and
- *Developmental Diversity*, which notices differences created by genetic, social, and cultural circumstances within the search for general trends and patterns in human development.

In this edition, you will find these themes introduced in Chapter 1, mentioned throughout the text as we focus on specific stages of development, and highlighted at the end of each part in a special section called “Looking Back/Looking Forward.” This feature revisits the four developmental themes in relation to a hinge issue that appeared in that part. The thematic orientation of this edition is designed to help students appreciate the complex combination of continuity and change from birth emerging adulthood.

We have also broadened our range of examples and applications to increase its relevance to the wide range of students who come to a developmental course from many departments and are headed for a wide range of occupational and family roles. We realize that they will be educators, health professionals such as occupational and physical therapists, and nurses, social workers, parents, and family members, all roles requiring an understanding of human development. We have revised our book with this in mind.

We believe that developmental psychology is relevant to current career and social issues that all adults face. It is especially relevant to those who will work or live with children and adolescents. We see personal involvement as positive and include a wide range of examples that will enable most readers to find themselves, and people they know, in the story of child and adolescent development.

## Content and Organization

Part 1, “Studying Human Development,” introduces our developmental themes and discusses the field of human development, key theories, genetics, prenatal development, and birth. Some of the changes we have made in this portion of the book include Chapter 1 reorganized to highlight the key themes of development as they are emphasized in this book. In Chapter 2, “Applications throughout Development” sections following each major set of developmental theories help students see how theories can be used.

Parts 2 through 6 are then organized chronologically: genetics, prenatal development and birth, the first two years, early childhood, middle childhood, and adolescence. Within each age period, we focus in one chapter on physical development, one chapter on cognitive development, and a third chapter on psychosocial development. Although we frequently point out the interrelatedness of these three domains, we give each separate attention as well. Content changes in Parts 2 through 6 include a new section examining sleep in each age period and, as applicable, discussion of families with same-sex parents and gay and lesbian issues.

In addition to specific content changes, we have included multicultural coverage throughout the text as well, as in the special “Multicultural View” boxes, and increased integration of practical information, cultural information, and career ideas with research information.

We have also made the organization more parallel throughout the book. In the chapters on physical development, for example, we cover systemic change, health and health-compromising behaviors. The chapters on cognition cover moral development, school, and work in the same order in each stage’s comparable chapters. Likewise, the chapters on psychosocial development move from discussions of theories of personality development to discussions of the family sphere to relationships in the wider world. For students, this parallelism reinforces continuities from stage to stage and will make it even easier for instructors



who prefer to organize their courses topically rather than chronologically to use the book in their own way.

## Tools to Enhance Learning

For a textbook to be effective, it must be read. With this in mind, we continued to hold ourselves to high standards for clear, good writing. This text is approachable, filled with real life examples that can engage students in the issues of human development and illustrations that reinforce key concepts.

**A Critical Approach to Research** We base our presentation on a firm understanding of current research in the field, balancing the inclusion of classic and recent studies. Yet the book is not so data driven as to be too technical for students new to the issues. Numerous hypothetical and real-life examples balance our research-based discussions. Because research findings do not always agree with one another, this book focuses both on what we know and on how we came to know it. We want students to understand how the data behind the conclusions were generated and to be able to raise questions about the validity, reliability, and generalizability of research findings. We introduce methodological concerns in Chapter 1. In addition, we present critiques of studies as we discuss them and periodically describe methods where they will have the most meaning (such as “Studying Cognition and Memory in Infants” in Chapter 6’s discussion of cognitive development during the first two years).

**Rich Illustration Program** Numerous graphs, figures, and tables reinforce the text discussions by providing a visual guide to key concepts. These have been updated to reflect the latest demographic data. Captions to line art and photos emphasize critical points and provide additional pedagogical support. We carefully selected photographs to reinforce our emphasis on diversity in culture, race and ethnicity, gender, sexual orientation, and socioeconomic status.

**Improved Learning Aids** As in the previous editions, chapters open with outlines and focusing questions. New to this edition, we organize our end-of-chapter summaries around the focusing questions that appeared in the beginning of the chapter to highlight the conceptual connections among topics in each main section. Key terms lists again serve as pedagogical supports by reinforcing the important themes, ideas, and concepts in each chapter. We have included a margin glossary to this edition to further support student learning of key terms. In addition to assisting in the mastery of content, these aids encourage students to develop their personal perspectives about psychology and its practical applications.

## Special Features

**Looking Back/Looking Forward** New to this edition, a greatly expanded section at the end of each part

examines a hinge issue in light of the four themes of the book: Continuity Within Change, Developmental Growth, Changing Meanings and Vantage Points, and Developmental Diversity. The hinge issues are as follows: genetic inheritance after “Beginnings”; attachment after the “First Two Years”; friendship after “Early Childhood”; family after “Middle Childhood”; and parent-child relationships after “Adolescence.” These sections reinforce the developmental themes by approaching key concepts from a fresh angle and linking them to earlier developmental periods and those yet to come.

**What Do You Think?** In this edition, we continue to have questions designed to stimulate reflection and discussion about the issues and concepts of development, located at the end of each major section throughout every chapter. “What Do You Think?” questions also appear at the end of the “Working With” and “Focusing On” boxes to reinforce the connections between the box and the main text. While addressed directly to the student, the “What Do You Think?” questions can also serve as a basis for class activities and discussion. Many encourage collaboration among classmates and can be used as group assignments.

**“Working With” Interviews** As in the previous editions, each chapter includes an interview with someone who works in the field discussing the practical application of developmental issues featured in that chapter. Robert Hoffnug’s interview with a psychiatric social worker appears in Chapter 2 to enhance the discussion of psychoanalytic theory. Kelvin Seifert’s new interview about teaching high school mathematics and its relationship to cognitive development in adolescence appears in Chapter 15. Interviews enable students to see the relationship between the theoretical and the practical. “What Do You Think?” questions follow the interviews to stress the connections with the text. The interviews also provide occupational examples for students who are considering possibilities for their futures. For a complete list of featured careers and topics, see page x.

**A Multicultural View** Again in this edition, a boxed insert in each chapter highlights an issue of development from a cross- or multicultural perspective. While this perspective is a consistent aspect of the text, we use the boxes to focus on issues of particular interest. Topics new to this edition include a comparison of street children in Paraguay and North America (Chapter 1) and a cross-cultural look at delinquency (Chapter 16). A complete list of these boxes appears on page x.

**Focusing On** Each chapter’s “Focusing On” box expands the discussion in the text by highlighting a significant and timely issue and includes “What Do You Think?” questions to enhance the connections



among the box, the chapter, and students' experiences. See page x for a full list.

## Online and in Print

### Student Options: Print and Online Versions

This Sixth edition of *Child and Adolescent Development* is available in multiple versions: online, in PDF, and in print as either a paperback or loose-leaf text. The content of each version is identical.

The most affordable version is the online book, with upgrade options including the online version bundled with a print version. What's nice about the print version is that it offers you the freedom of being unplugged—away from your computer. The people at Academic Media Solutions recognize that it's difficult to read from a screen at length and that most of us read much faster from a piece of paper. The print options are particularly useful when you have extended print passages to read.

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## About the Authors

As developmental psychologists, college professors who teach adolescents and adults of many ages, and parents who have seen our children through many stages of development (some as far as early adulthood), the authors bring to this project a shared interest in human development as well as training and interests that complement each other. Megan's teaching covers each age period of the lifespan and focuses on adolescence, emerging adulthood, and late life as well as health psychology and sleep; her research is focused on improving sleep among college students and older adults. Kelvin's teaching has focused on early childhood and learning theory; his recent research is on children's cognition, although his earlier research looked at gender issues in early childhood teacher education. Robert has taught about childhood, adolescence, and lifespan development; he has also done clinical work with children, adolescents, adults, and families.

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# Studying Human Development

PART

# 1

## Chapter 1

Introduction: Studying Human Development

## Chapter 2

Theories of Development



Source: Andi Berger/Shutterstock.com.

As individuals grow from infancy into childhood, and from childhood into adolescence, they change in some ways while remaining the same in others. Some changes may be small and fleeting, whereas others are profound and long lasting. The mix of change and constancy is the subject of this book and of the field known as *developmental psychology*.

The study of development offers much insight into human nature—why we are what we are and how we became that way. Because describing development is a complex task, this book begins with two chapters that orient you to what lies ahead. They explain just what development is and describe some of the most important tools of lifespan developmental psychology, namely the methods and theories that guide our understanding of child and adolescent development. As you read the chapters, though, keep in mind one of the most important sources of the theories: the children themselves.





# Introduction: Studying Human Development

CHAPTER

# 1



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## Chapter Outline

**The Nature of Human Development**

**Why Study Development?**

**The Life Course in Times Past**

**Lifespan Perspectives on Human Development**

**Methods of Studying Developmental Psychology**

**Ethical Constraints on Studying Development**

**Strengths and Limitations of Developmental Knowledge**

## Focusing Questions

- What in general is lifespan development?
- Why is it important to know about development?
- How has society's view of childhood changed over time?
- What general issues are important in human development?
- How do developmental psychologists go about studying development from conception to adolescence?
- What ethical considerations should guide the study of child and adolescent development?

What do you remember from your past? When thinking back, each of us remembers different details, but we all experience a paradoxical quality about personal memories; when comparing the past and the present, we feel as though we have changed, yet also stayed the same. As a preschooler, for example, one of the authors (Kelvin Seifert) had trouble tying his shoelaces. Now, as an adult, he can tie laces easily, but he has to admit that he has never enjoyed or excelled at tasks calling for delicate or precise physical skills. In this small way, Kelvin has both changed and stayed the same. You yourself may have experienced this same dual quality. As a schoolchild, perhaps you loved spelling “bees” or contests. Now, as an adult, you no longer participate in spelling contests

and have lost some of your childhood ability to figure out and remember truly unusual spellings. But perhaps you note, too, that you can still spell better than many adults of your age, and you seem to have a general knack for handling verbal information of other kinds—like computer programming languages—without getting mixed up. Or imagine another example: As a teenager you may have constantly wondered whether you would ever overcome shyness and be truly liked and respected by peers. As an adult, in contrast, you finally believe you have good, special friends; but maybe you also have to admit that it took effort to become sociable enough to acquire them.

Continuity in the midst of change marks every human life. Sometimes changes seem more obvious than continuities, such as when a speechless infant becomes a talkative preschooler, or when a college student finishes school and begins her career in earnest. Other times continuities seem more obvious than changes, such as when an eighteen-year-old still feels like a little kid when his mom addresses him by his first and middle name. But close scrutiny of examples like these suggests that both factors may be operating, even when one of them is partially hidden. The eighteen-year-old feels like a child again, but at the same time feels different from that child. The twenty-four year old professional is now preoccupied with her job, but she still cares deeply about her friends from college who now live across the country. It takes both continuity and change to be fully human; I must be connected to my past somehow, but also neither locked into it nor fully determined by it.

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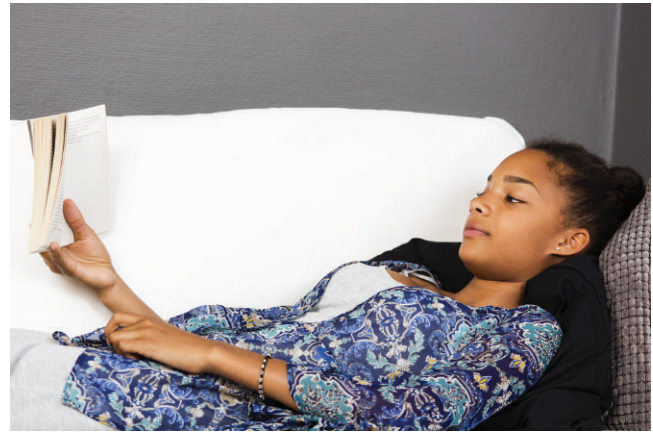
## The Nature of Human Development

**development** Long-term changes in a person's growth, feelings, patterns of thinking, social relationships, and motor skills.

This book is about continuity and change from conception through adolescence. Sometimes these processes are called human **development**, although this term is sometimes used to emphasize changes, rather than constancies, in physical growth, feelings, and ways of thinking. As we will see in later chapters, a focus on change may indeed be appropriate at certain points in a person's life. A girl undergoing her first menstrual period, for example, may experience a number of important changes at the same time, and rather suddenly: her body begins looking different, she begins thinking of herself differently, and other people begin treating her differently. But at other times, continuity dominates over change. As an eight-year-old settled into his elementary school and living in a stable home with his mother, for example, life may seem rather stable from day to day, month to month, or even year to year. Because this book explores development (from conception to adolescence), it will make the most sense to keep both factors in mind—both continuity *and* change—without emphasizing one over the other in advance. When we speak of human development in this book, therefore, we will mean the mix of continuities and changes that occur during a person's life, from conception to adolescence.

Note that both continuities and changes can take many forms. Changes can be relatively specific, such as when an infant takes her first unassisted step. Others can be rather general and unfold over a long time, such as when the areas of a teenager's brain responsible for planning ahead and thinking of consequences becomes more efficient over the course of adolescence and emerging adulthood. The same can be said of continuities. Some last for only a short time compared to the decades-long span of life: a four-year-old who enjoys watching Sesame Street will likely continue to enjoy watching Sesame Street. Other continuities seemingly last a lifetime: an extroverted child—one who seeks and enjoys social companionship—is likely to still seek and enjoy companionship as a teenager.

These examples may make the notion of human development seem very broad, but note that not every change or continuity is truly “developmental,” and some human developments are easily overlooked or discounted. Think about the impact of the weather. A sudden cold snap makes us behave differently: we put on warmer clothing and select indoor activities over outdoor ones. A continuous spell of cold weather, on the other hand, creates constancy in behavior: we wear the same type of clothing for a period of time and engage in the same (indoor) set of activities repeatedly. In both cases, our behavior does



Development occasionally involves rapid, visible changes, such as learning to walk without assistance. Development also includes continuity over time, such as a love of reading.

Source: (left) Kitzero/Shutterstock.com, (right) multiart/Shutterstock.com.

not qualify as “development” because it is triggered by relatively simple external events and has no lasting impact on other behaviors, feelings, or thinking.

But true human development sometimes also can occur, yet be overlooked or dismissed as something other than development. Personal identity or sense of “self” is an example. A concept of who “I” am always seems to be with me, and often it seems so constant that I ignore it, making it “part of the woodwork” of my mind. This is likely true for you, too; your sense of who “you” are probably seems consistent or familiar to you. This fact is so much a part of our lives that it is easy to overlook its importance or to notice changes in our self-concepts when they occur. Yet for each of us, identity evolves and changes as we grow older, and the changes affect our actions and feelings differently when they occur.

## Multiple Domains of Development

As these examples suggest, human development can take many forms. For convenience of discussion, this book distinguishes among three major types, or **domains**, of development: physical, cognitive, and psychosocial. The organization of the book reflects this division by alternating chapters about physical, cognitive, and psychosocial changes. The domain of **physical development**, or biological change, includes changes in the body itself and how a person uses his or her body. Some of these changes may be noticeable to a casual observer, such as the difference in how a person walks when she is two years old versus when she is eighteen years old. Others may be essentially invisible without extended observation or even medical investigation, such as the difference in the ability to see between a four-month-old and his seven-year-old sister. Like other forms of development, physical changes often span very long periods—literally years or even decades—though not always. For example, changes in height and weight occur rather rapidly during toddlerhood and the early teenage years but more slowly during late adolescence.

**Cognitive development** involves changes in methods and styles of thinking, language ability and language use, and strategies for remembering and recalling information. We tend to think of these abilities and skills as somewhat isolated within individuals; a person is said to “have” a good memory, for example, as if he or she carries that skill around all the time and can display it anywhere with equal ease, no matter what the situation. As later chapters will sometimes point out, however, thinking of cognitive development in this way may be more convenient than accurate: memory, language, and thinking are all heavily dependent on supports (and impediments) both from other people and from circumstances. A child learns to read more easily, for example, if parents and teachers give lots of personal support for her efforts. In this sense cognitive changes of reading “belong” to the helpful adults as well as to the child who acquires them, and the changes are best understood as partially physical and social in nature, and not merely cognitive.

**domain** A realm of psychological functioning.

**physical development** The area of human development concerned primarily with physical changes such as growth, motor skill development, and basic aspects of perception.

**cognitive development** The area of human development concerned with cognition; involves all psychological processes by which individuals learn and think about their environment.



## psychosocial development

The area of human development concerned primarily with personality, social knowledge and skills, and emotions.

**Psychosocial development** is about changes in feelings or emotions as well as changes in relations with other people. It includes interactions with family, peers, and classmates, but also includes a person's personal identity, or sense of self. Because identity and social relationships evolve together, we often discuss them together in this book. And, as already pointed out, they also evolve in combination with physical and cognitive changes. A teenager who forms satisfying friendships is apt to feel more competent than one who has difficulty doing so, and he is even likely to stay healthier as well. Each domain—physical, cognitive, and psychosocial—influences each of the others.

Figure 1.1 shows some major landmarks of development in each of the three domains during a few selected stages of development. It also hints at some of the connections among specific developments, both between domains and within each single domain. Attachment to caregiver(s), for example, is noted as emerging during infancy; early attachment patterns set the stage for the kinds of friendships and romantic relationships that develop during childhood, adolescence and adulthood. This change in social circumstances is sometimes (but certainly not always) accompanied by physical changes and cognitive changes—though which change causes which is not always clear. In addition to these examples from Figure 1.1, numerous other relationships exist between and within domains of development. In later

**FIGURE 1.1**  
Selected Landmarks  
of Development

Development is a continual unfolding and integration of changes in all domains, from birth until death. Changes in one domain often affect those in another domain, and changes that occur in earlier stages of life can influence those that occur during later stages.





chapters we will point these out more explicitly wherever appropriate. Meanwhile, to get a better sense of what development from a developmental perspective means, consider a more extended, complete example.

### Development: The Example of Jodi

So far, though we have talked about the importance of relationships among various forms of development, our examples have been a bit diverse and fragmented. How would developments tie together in the life of a real person? What relationships among them could we see then? These are not simple questions to answer fully, but you can begin to get partial answers by considering a child whom one of the authors knew personally: Jodi.

When Jodi was four, one of her brothers died. Roger had been 2-1/2 years older, a friendly kid and a decent sibling. Jodi played with him more than with her sister and other brother, who were both older than Roger. He died suddenly one winter from complications of chicken pox. The doctors said he may have reacted to the aspirin he had taken for his fever. The doctors said you weren't supposed to give aspirin to children, but Jodi didn't know that, and apparently her parents didn't know it either.

For a few years after that, they were a three-child family "with a hole in the middle," said Jodi to her best friend, where Roger was supposed to be. It was not ideal for Jodi, but it was tolerable: she didn't have the playmate she used to have, but she did have her family ("What's left of it!") and her friends from school. Life got back to normal—sort of.

When Jodi was nine, her parents adopted another child, a boy of twelve, about the same age Roger would have been had he lived. Frank had lived in numerous foster care homes, some of which had not been happy experiences for him. In two homes the discipline had been extremely strict, but it was hard for Jodi to know this because Frank did not tell her as much as he told the social workers or his new adopted parents, and her parents did not say much about Frank's past. In fact, Frank said little to Jodi about anything; he seemed distinctly cool toward all three of his new siblings—except for his periodic visits to Jodi's room at night. The first time it happened, Jodi was startled out of her sleep: Frank was standing by her bed and demanded that she take off her nightgown. That was all for that time. But he came back every few weeks, each time asking for more than the time before and threatening to hurt her badly if she revealed "our secret."

So Jodi learned not to sleep deeply. She also learned to avoid being alone in the house with Frank. In high school and college, she learned to avoid talking to boys a lot, except in a joking way and in the presence of others. In class she learned to look interested in what the instructors said even though she often was "sleeping inside," as she put it. So Jodi learned a lot from Frank, though not things she wanted to learn and not things most of her classmates were learning.

Jodi's story shows several things about human development. It shows, for example, that the domains of development all unfold together. Jodi's thoughts and feelings about Frank occurred in the context of physical changes happening to herself. Being physically older or younger may not have protected her from abuse, but it probably would have altered the experience, both in impact and in quality.

Jodi's story also suggests the importance of unique, personal experiences when exploring human development in general. Some things about Jodi may always be unique because of her encounters with Frank; she may always be a bit mistrustful of boys and men, for example. But other things about Jodi can be understood as examples of human changes that are universal or nearly universal. In experiencing abuse, for example, Jodi responds to gender role differences that pervade nearly all societies; in most societies, women enjoy less power than men do.

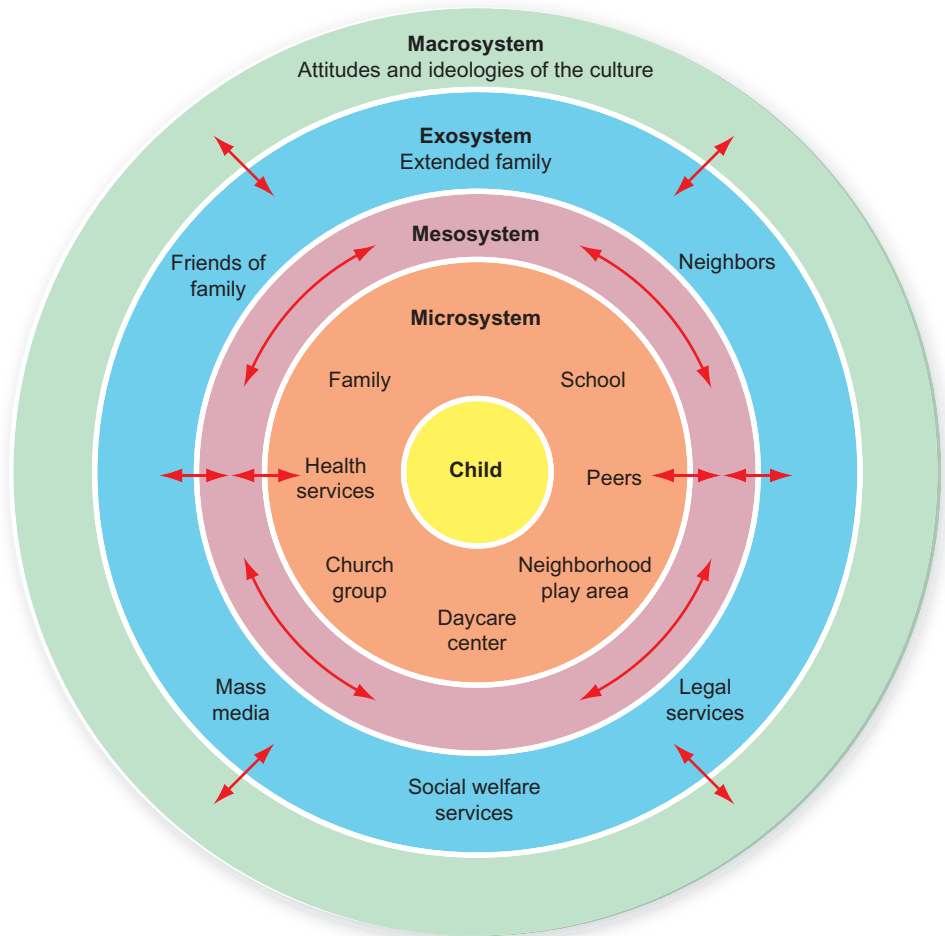
From the point of view of development, Jodi's story also raises questions about continuity and change across wide ranges of time. We are left wondering whether Jodi's initial responses to abuse will persist throughout her life. Assuming she will be cautious about men even as a thirty-year-old adult? After so many years go by, society itself may develop new attitudes about the significance of childhood abuse, just as society already has done in the past few decades.

## FIGURE 1.2

### Bronfenbrenner's Ecological Systems for Developmental Change

As shown here, Bronfenbrenner describes human development as a set of overlapping ecological systems. All of these systems operate together to influence what a person becomes as he or she grows older. In this sense, development is not exclusively “in” the person but is also “in” the person’s environment. In addition to the systems pictured here, a fifth system, the *chronosystem*, refers to changes in the ecological systems over a person’s lifetime and over the course of human history.

Source: Adapted from Garbarino (1992a).



To help organize thinking about developmental questions like these, the developmental psychologist Urie Bronfenbrenner has originated a widely used framework for thinking about the multiple influences on individuals (Bronfenbrenner, 1989, 2005; Garbarino, 1992a). He describes the context of development as *ecological systems*, which are sets of people, settings, and recurring events that are related to one another, have stability, and influence the person over time. Figure 1.2 and Table 1.1 illustrate Bronfenbrenner’s ecological systems.

1. The *microsystem* refers to situations in which the person has face-to-face contact with influential others. For Jodi, the microsystem consists of her immediate family (though note that the membership of this family changed over time) as well as her teachers and peers at school.
2. The *mesosystem* refers to the connections and relationships that exist between two or more microsystems and influence the person because of their relationships. An example would be the contacts between Jodi’s parents and the social workers responsible for Frank’s adoption: their contacts led them (perhaps wrongly) to withhold information about Frank from Jodi.
3. The *exosystem* consists of settings in which the person does not participate but still experiences decisions and events that affect him or her indirectly. An example in Jodi’s case might be the medical system, which either lacked the knowledge needed to save Roger at the time of his death or had been organized in a way that interfered with communicating needed medical knowledge to Jodi’s parents.
4. The *macrosystem* is the overarching institutions, practices, and patterns of belief that characterize society as a whole and take the smaller micro-, meso-, and exosystems into account. An example that affected Jodi was gender role: a widespread belief that men should dominate women may have contributed to Frank’s coercive actions against Jodi, as well as to Jodi’s caution with boys and men as she got older.

**TABLE 1.1** Ecological System Levels

Ecological Level	Definition	Examples	Issues Affecting the Individual
Microsystem	Situations in which the person has face-to-face contact with influential others	Family, school, peer group, church, workplace	<p>Is the person regarded positively?</p> <p>Is the person accepted?</p> <p>Is the person reinforced for competent behavior?</p> <p>Is the person exposed to enough diversity in roles and relationships?</p> <p>Is the person given an active role in reciprocal relationships?</p>
Mesosystem	Relationships between microsystems; the connections between situations	Home–school, workplace–family, school–neighborhood	<p>Do settings respect each other?</p> <p>Do settings present basic consistency in values?</p>
Exosystem	Settings in which the person does not participate but in which significant decisions are made affecting the individuals who do interact directly with the person	Spouse’s place of employment, local school board, local government	<p>Are decisions made with the interests of the person in mind?</p> <p>How well do social supports for families balance stresses for parents?</p>
Macrosystem	“Blueprints” for defining and organizing the institutional life of the society	Ideology, social policy, shared assumptions about human nature, the “social contract”	<p>Are some groups valued at the expense of others (e.g., sexism, racism)?</p> <p>Is there an individualistic or a collectivistic orientation?</p> <p>Is violence a norm?</p>
Chronosystem	Changes in all of the ecological systems over the course of a person’s development and over the course of human history.	The developmental impact of certain events will vary depending upon their timing during one’s development, and elements of the ecological systems can change from one generation to the next.	<p>What elements of the ecological systems are most impactful on an individual’s development, given that individual’s age?</p> <p>What factors will greatly influence the development of children born in 2015? How do those factors compare to ones that were present in 1990?</p>

5. The *chronosystem* (not depicted in Figure 1.2) can be best thought of as a quality of all of the ecological systems: they change over time. During the course of one’s lifetime, specific aspects of each person’s micro-, meso-, exo-, and macrosystems will change, as will their impact on the individual’s development. In Jodi’s case, if Frank’s actions occurred when Jodi was 19 instead of just 9 years old, the events might have played-out very differently. Additionally, over the course of human history, these same ecological systems have undergone significant changes. Today we have a heightened awareness about the developmental consequences of child maltreatment as compared to what we knew a few decades ago.

In the pages ahead we will keep in mind these multiple systems, such as those implied by Jodi’s story, as well as the importance both of long-term developments during adulthood and of historical changes. Only in this way will we be able to convince you that developmental psychology has something to say about particular human lives: about how you, I, or a friend of yours changes and grows and what those changes may signify for our lives as a whole. In taking this perspective, we do not wish to imply that shorter term changes do not matter. What happened to Jodi at age nine, for example, mattered greatly to

her at age ten. We do, however, want to emphasize that developmental changes often have consequences that are more than short term, and that the consequences are not necessarily identical or even similar to each other. Jodi's response to abuse one month or one year after the experience may—or may not—be the same as her response many years later. We encourage you to think of her story as a reminder of these complexities.

## Why Study Development?

Knowing about human development can help you in five major ways:

1. Allow you to form realistic expectations for others;
2. Help you respond appropriately to the actions of others;
3. Enable you to distinguish between normative and non-normative behavior in others;
4. Provide insights into yourself; and
5. Inform and enhance your professional advocacy for others.

Each of these benefits is described in more detail below.

First, knowledge about development can give you realistic expectations for infants, children, and adolescents. Developmental psychology tells you, for example, when infants usually begin talking and when schoolchildren tend to begin reasoning abstractly. It also describes the issues faced by parents—and grandparents, for that matter. Admittedly, it often gives such information only as averages or generalities: when a “typical” person acquires a particular skill, behavior, or emotion. Nonetheless, the averages can help you know what to expect from specific individuals.

Second, knowledge of development can help you respond appropriately to a person's actual behavior. If a preschool boy tells his mother that he wants to marry her, should she ignore his remark or make a point of correcting his misconception? If a third-grade child seems more interested in friends than in schoolwork, should her teacher discourage contact with friends or try to figure out ways to use the friends to support the child's academic work? Developmental psychology can help answer such questions by indicating the sources and significance of many patterns of human thought, feelings, behavior, and growth.

Third, knowledge of development can help you recognize the wide range of normal behaviors, and thus when departures from normal are truly significant. If a child talks very little by age two, should her parents and doctors be concerned? What if he still does not talk much by age four? If a child becomes more argumentative when she enters adolescence, is this normal or should the parents be concerned about whether her friends are becoming a bad influence? We can answer these questions more easily if we know both what *usually* happens and what *can* happen to people as they move through life. Developmental psychology will help by placing particular behaviors in a broader context, one that (like Bronfenbrenners' framework pictured in Figure 1.2) calls attention to the many simultaneous influences on every person's life. As we will see in the chapters ahead, this perspective leads to the conclusion that the importance of any particular behavior depends not just on the age of the person doing it but on the place of the behavior in the overall life of the person.

Fourth, studying development can help you understand yourself. Developmental psychology makes explicit the process of psychological growth, processes that each of us may overlook in our personal, everyday lives. Even more important, it can help you make sense out of your own experiences, such as whether it really mattered that you reached puberty earlier (or later) than your friends did.

Finally studying development can make you a more professional advocate for the needs and rights of children and adolescents. By knowing in detail the capacities and potential of young people, you will be in a good position to persuade others of their importance and value. The “others” are diverse and include parents, professionals who work with children, and political and business leaders. All of us, including most readers of this book, have a common stake in making our society a more humane place to live. Yet, as the “Focusing On” feature indicates, we as a society can do a better job of supporting human development than we in fact have done.



**Wanted: A Child and Family Policy**

Parents generally do value their children, want the best for them, and make sacrifices on their behalf. In spite of this support, though, the lives of children are often difficult:

- According to a recent report on child well-being from UNICEF (UNICEF Office of Research, 2013), more than 20 percent of all children in the United States under age seventeen live in families that are officially poor. This is more than twice the rate of poverty in Canada and about eight times the rate of poverty in Finland. In fact, among the world's developed countries, only Romania has a higher rate of child poverty than the United States.
- While rates of immunization have increased worldwide during the past decade, a significant proportion of children have failed to receive routine immunizations against polio, measles, and other childhood diseases. The United States ranks much lower than many other developed countries, and three of the wealthiest countries in the UNICEF study—Austria, Canada, and Denmark—have the lowest rates of immunization (ranging from 81–88% of children under the age of two). Greece and Hungary reported the highest rates of childhood immunizations (both at 99% of children under age two).
- About a third of all children living today will eventually experience the divorce of their parents, with all of the stress it brings (Hetherington, 1995). One of the stresses will be poverty, because the parent who usually has major custody, the mother, tends to earn much less than the father.
- In the United States, on average, an infant is born into poverty every twenty-nine seconds, a child is physically punished in school every thirty seconds, and a child is killed by a firearm every three hours (Children's Defense Fund, 2012).

A major reason these problems exist is that the United States lacks a comprehensive, integrated set of policies for caring for its children. Programs to remedy social problems have tended to focus on problems selectively rather than recognizing the impact of one problem on another. School programs to assist with learning difficulties, for example, tend to work with children individually, even though health, nutrition, illness, and family disruptions contribute to learning difficulties in major ways. A more effective approach is to provide a set of related and coordinated services to support families: pediatric care, combined with special help at school and a supportive social worker or nurse to visit parents at home to provide encouragement and information. When Victoria Seitz and Nancy Apfel tried this approach with some low-SES families, they found improvements in cognitive abilities not only for the children originally at risk but also for their siblings who had not even been a focus of the intervention (Seitz & Apfel, 1994)!

Such combined approaches to children's welfare may look expensive and difficult when organized as special demonstration projects, but experience in other developed countries suggests that costs decrease markedly when implemented universally and that organizational problems can in fact be solved (Chafel, 1993; U.S. General Accounting Office, 1993). The real challenge, it seems, may be political: enlisting the support of leaders in government and business to develop comprehensive policies for children, and thereby ensuring the future of society.

**What Do You Think?**

Suppose child care were made universally available in the United States and Canada as it currently is in certain European nations. What effect would this policy have on children's development? What effect would it have on their families? Would your feelings about universal child care depend on the age of the children?

**The Life Course in Times Past**

Until just a few hundred years ago, children in Western society were not perceived as full-fledged members of society or even as genuine human beings (Ariès, 1962). During medieval times, infants tended to be regarded rather like talented pets: at best interesting and even able to talk, but not creatures worth caring about deeply. Children graduated to adult status early in life, around age seven or eight, by taking on major, adult-like tasks for the community. At that time, children who today would be attending second or third grade might have been caring for younger siblings, working in the fields, or apprenticed to a family to learn a trade.

Because children took on adult responsibilities so soon, the period we call *adolescence* was also unknown. Teenagers assumed adult roles. Although these roles often included marriage and childrearing, most people in their teens lived with their original families, helping with household work and with caring for other people's children until well into their twenties.



## What Do You Think?

What do you hope to gain by studying developmental psychology (besides a college credit, of course!)? Take a minute to think about this question—maybe even jot down some notes about it. Then share your ideas with two or three classmates. How do they differ?



The concept of childhood as a distinct period in a person's life is a relatively new invention. Prior to the 19th century, children were expected to assume responsibilities and contribute to the household in important ways as soon as they were able, much like the girl in the picture who is delivering milk. From the 19th century to the present, childhood has increasingly been viewed as a time for play and the acquisition of skills and knowledge that will serve them later in life, as seen in the picture of the girl who is drawing with colored pencils while in school.

Sources: (top) Chippix/Shutterstock, (bottom) Olesya Feketa/Shutterstock.

Although this may all seem harsh by modern, middle-class standards, it was not necessarily bad in the context in which it occurred. Historians and sociologists have pointed out that children and youth did have to work, but they tended to do only tasks for which they were capable, and they earned modest respect (if not wealth) from the community because they made true economic contributions to it (Hareven, 1986; Sommerville, 1990)—an advantage modern children experience much less often. Adults at that time also showed more awareness of the profound differences among children in their formative, childhood experiences. The modern tendency to view all children as innocent and needing protection has also led, ironically, to much more uniform views about the nature of childhood and insensitivity to the impact of culture and economic class (Hendrick, 1997; Seifert, 2000).

### Early Precursors to Developmental Study

Why did awareness of childhood as a special time of life eventually emerge? Society was becoming less rural and more industrialized. During the eighteenth century, factory towns began attracting large numbers of workers, who often brought their children with them. “Atrocity stories” became increasingly common: reports of young children in England becoming caught and disabled in factory machinery and of children being abandoned to the streets. Partly because of these changes, many people became more conscious of childhood and adolescence as unique periods of life, periods that influence later development. At the same time, they became concerned with arranging appropriate, helpful experiences for children.

Without a doubt, the change in attitudes eventually led to many social practices that we today consider beneficial to children and youth. One positive gain was compulsory education, instituted because children needed to be prepared for the adult world rather than simply immersed in it. Another was the passage of laws against child labor to protect children from physical hardships of factory life and make it less tempting for them to go to work instead of to school.

But these gains also had a dark side. Viewing children as innocent also contributed to increasing beliefs that children are incompetent, their activities are unimportant, and the people who care for children deserve less respect than other people. That is why, it was argued, children cannot do “real” work and why they need education (Cannella, 1997). And viewing them as innocent contributed to the idea that children are essentially passive and lacking in opinions and goals worth respecting; that is why, it was thought, adults have to supervise them in school and pass laws on their behalf (Glauser, 1997; Kitzinger, 1997). These were early signs of what later came to be called **ageism**, a prejudice against individuals based on their age, which eventually also affect social attitudes about groups of similarly aged people—especially adolescents and older adults.

### The Emergence of Modern Developmental Study

During the nineteenth and twentieth centuries, the growing recognition of childhood led to new ways of studying children's behavior. One of these was the *baby biography*, a detailed diary of a particular child, usually the author's own. One of the most famous English baby biographies was written and published by Charles Darwin (1877) and contained lengthy accounts of his son Doddy's activities and accomplishments. The tradition of rich description continued in the twentieth century with Arnold Gesell, who observed children at precise ages doing specific things, such as building with blocks, jumping, and hopping (Gesell, 1926). After studying more than five hundred children, Gesell generalized standards of

normal development, or **norms**—behaviors typical of children at certain ages. Although the norms applied primarily to white, middle-class children and to specific situations and abilities, they gave a wider-ranging picture of child development than was possible from baby biographies alone.

The method of descriptive observation in developmental research has persisted into the present. An influential observer in this century has been Jean Piaget, who described many details of his own three children’s behavior, as well as that of adolescents (Piaget, 1963). He did not observe all of the children’s possible behaviors, but rather he focused on those behaviors that illustrated their cognitive skills, or ability to think. Piaget’s work has influenced modern developmental psychology quite extensively, and we will discuss his theory and the implications of his work later in this book.

**ageism** Prejudice or bias against an individual based on the individual’s age.

**norms** Behaviors typical at certain ages and of certain groups; standards of normal development.

## Lifespan Perspectives on Human Development

As we mentioned earlier, this book is about human development from conception through adolescence, a subset of a larger field of *lifespan development*, the study of continuity and change from birth to death. As the term implies, lifespan development is not confined to any one period of life, such as childhood, adolescence, or adulthood (sometimes psychologists call these by more specific names like *child psychology*, *the psychology of adolescence*, or *the psychology of adulthood*). Though this text focuses on development from conception through adolescence, the basic issues of interest in lifespan psychology are the same: a commitment to understanding how human beings think, feel, and act at different ages. It also shares a commitment to systematic study of the human condition, a commitment that we will look at more closely later in this chapter. But it also differs from other fields of developmental study in four distinct ways: (1) in dealing with the issue of human continuity and change, (2) in viewing the interplay between growth and decline, (3) in comparing how basic events of life change in meaning at different ages and when viewed by different individuals, and (4) in noting (and respecting) the wide diversity among individuals and the sources of that diversity. These themes are summarized in Table 1.2 and will come up repeatedly in the chapters ahead. To get an initial idea of what they mean, let us look briefly at each of them now.

### Continuity within Change

Throughout development there are periods of stability and periods of change, and depending on the time frame being used, change sometimes seems gradual and imperceptible and sometimes seems sudden and abrupt. A cooing four-month-old infant becomes a fourteen-year-old arguing that her room is “clean enough.” If we take a closer look, that four-month-old will begin cooing different sounds, then begin linking consonant sounds

**TABLE 1.2** Perspectives on Human Development

Issue	Key Question
Continuity within change	How do we account for underlying continuity in qualities, behaviors, and skills in spite of apparent change?
Lifelong growth	What is the potential for growth—emotionally, cognitively, socially, and physically?
Changing meanings and vantage points	How do key life events change in meaning throughout childhood and adolescence and as a result of changing roles and experiences?
Developmental diversity	What factors create differences in individuals’ development?

## What Do You Think?

What are the merits and problems of descriptive study of human beings? One way to find out is for you and two or three classmates to make separate written observations of the “same” events. Visit a place with people in it (e.g., your student union, a store, or even your developmental psychology classroom), and separately write about what you see one particular person doing. Afterward, compare notes. How similar are your observations? How do they differ?

with vowel sounds, and will eventually begin saying words with meaning attached to those words. Some developmental transformations take years, even decades, to occur. It is the developmental perspective—the comparisons among different periods of life—that makes change seem more frequent and obvious. Such changes would be less obvious if development were studied over shorter periods of time. That four-month-old may seem like she suddenly became an argumentative teenager, but the addition of new sounds and words to her vocabulary happened gradually.

One challenge of developmental psychology is to identify the factors that underlie developmental changes that occur over the periods with which it deals. In essence, the field looks for the continuities hidden within long-term changes. Developmental psychologists asks, “Who is the person underlying long-term changes, and how does he or she direct and influence the changes?” Consider an eighteen-year-old who protested over his parents’ separation at age two but now enjoys a secure relationship with his parents. Is there an underlying continuity between her behavior at two and her behavior at eighteen? Perhaps a connection exists, but is implicit: when, as a two-year-old, he cried at his mother’s departure, maybe he was not just complaining about being “abandoned” but also expressing the strength of his attachment. Perhaps her tantrums over separation even showed his commitment to the relationship, both to his mother and to himself. And his protests actually may have reflected a high comfort level, rather than a low one, in his bond to his mother, showing his confidence that he would not be punished for expressing his opinion! Later, at eighteen, he is in a better position to express his strong attachment directly, particularly because he no longer feels that separations and reunions are completely out of his control. Across the two decades of his life, what was continuous was strong attachment; what was discontinuous or changeable was the way the attachment was expressed.

## Lifelong Growth

Though the focus of this text is from conception through adolescence, we must keep in mind that development is lifelong. Moreover, experiences at one point in development impact future development. This theme of lifespan psychology highlights the potential for growth at all ages, including not only childhood and adolescence but also adulthood and most of old age. Growth can occur in many areas of living, although it is not inevitable. For example, the psychologist William Damon has explored the development of moral goals in a series of research studies from infancy through middle age (Damon, 1996). By “moral goals” he refers to the formation of a sense of right and wrong, as well as the disposition to act on this sense. He points out that a moral sense is never formed completely, but deepens steadily throughout the lifespan. Note in the following developmental sequence how developmental growth in one’s moral sense is based upon borrowing and incorporating ideas and commitments from all of a person’s previous experiences.

- During infancy and the early preschool years, moral goals depend heavily on a child’s ability to *empathize* (actually feel what someone else feels) and to *sympathize* (be aware of another’s feelings even though not experiencing the other’s feelings directly). Empathy and sympathy direct many actions of preschoolers; a three-year-old might, for example, hand a favorite teddy bear to a crying playmate.

- During the elementary school years, children use empathy and sympathy to develop moral concepts—ideas about equity and fairness—but their opinions at this age may not necessarily translate into action consistent with their beliefs. For example, a ten-year-old will have definite personal opinions about how to distribute a reward of candy to group members when they have worked on a common project. Damon argues that elementary-aged children have not yet linked their moral goals with their self-concepts or self-identities. So at this age it is possible to believe one thing about morality (e.g., “pay according to effort”) but do another (e.g., “pay equally to all”).
- In adulthood, however, moral goals gradually become reconciled with self-identity—though only a minority do so completely (Colby & Damon, 1992). Who “I” am is increasingly defined by what I believe to be right and wrong, or good and bad. Aligning my “self” with moral ideas leads to stronger commitments to actions that embody these ideals (Damon, 2008). If I believe in a certain method of payment for group work, as in the example above, I am likely to say so. At the same time, the increasing sophistication of my thinking means I may also balance self-assertion against other moral commitments, such as not offending others unnecessarily—a demonstration of empathy and sympathy. The result is less “verbal hypocrisy,” as seen during childhood, but also less predictability and more diversity of both belief and action in adulthood.

From birth through late life, moral goals and moral thinking grow continuously while also changing character: from an exclusive basis in intuitions (empathy and sympathy), to distinct verbal beliefs, to beliefs and actions partially reconciled with a sense of self. The moral complexities of adulthood are based on the abilities to empathize and sympathize—the abilities developed initially in infancy and the preschool years.

### Changing Meanings and Vantage Points

By nature, developmental psychology deals with key events and themes of life from a number of different lenses. Work, play, love, having friends, and the family: these and other universal experiences mean different things as a person ages and mean different things depending on a person’s current roles and responsibilities. Other-sex friendships take on new forms and significance, for example, as children grow older; it means one thing to have an other-sex friend as a four-year-old but something quite different to a sixteen-year-old. Other-sex friendships also look quite different to those in the friendship than to their parents, for example.

Lifespan psychologist Jacqueline Goodnow illustrated the extent of such differences in perspective using one type of work, everyday household chores (Goodnow, 1996). Most families, whatever their size and composition, work out understandings about which family member should do which chores. Whether or not the work is divided equally, the arrangement itself is supposed to be known and agreed on by all. Goodnow points out, however, that this ideal is rarely achieved fully. An “official” division of household labor may really be understood or accepted only by the parents, or even just by one parent (most often the mother). Multiple, competing views of “who should do what” are common. Other family members (such as children) may have their own ideas about how much housework they ought to do and about which particular jobs reasonably belong to each person. Furthermore, the multiple views are also likely to change over time. One reason is that children grow and therefore acquire new housekeeping skills, engage in activities that make new housekeeping demands (like hosting friends as they get older), or leave home altogether. The other reason is that parents also grow and change their own activities and obligations; a parent may start working or get a divorce, for example, and the new conditions will alter the parent’s view of what housework really needs doing and by whom. The result of these factors is twofold: in most families conflict about housework is likely at least some of the time, and any current conflict is likely to disappear eventually, to be replaced by other disagreements about housework. It is still the same housework, but people’s views of it change.





An important issue in lifespan psychology has to do with accounting for the diversity among individuals, families, and communities. Are there principles that hold true for all people—including this Amish family and this African American family—regardless of circumstances?

Sources: (top) Ralph R. Echtenaw/Shutterstock.com, (bottom) Dragon Images/Shutterstock.com.

**scientific methods** General procedures of study involving (1) formulating research questions, (2) stating questions as a hypothesis, (3) testing the hypothesis, and (4) interpreting and publicizing the results.

## Developmental Diversity

Developmental psychology searches for general trends and patterns that account for important changes during infancy, childhood, and adolescence. But developmental psychology is also likely to note *differences* in patterns of development: differences created both by individual experiences and by social and cultural circumstances (Baltes & Staudinger, 1996). The “A Multicultural View” feature, for example, describes the experience of street children in Paraguay, noting how the circumstances in Paraguay modify the impact of life on the street in that society compared to more economically developed societies such as the United States and Canada. In Paraguay, a child who lives on the street some of the time is not necessarily cut off from the support of family or other responsible adults. And not all street children live in the street full time; in fact, most do so only for limited periods. The effect of street life on children’s development is therefore more variable; sometimes, in fact, street life creates a more positive context for growing up than staying in school, which costs money and often does not lead to employment later in life.

The diversity among street children in Paraguay suggests the importance of attending to diversity in development in general, and to diversity among North American children in particular. Just as in Paraguay, being a street child in the United States or Canada may be a different experience and hold different significance depending on a child’s circumstances, such as the quality of prior family relationships, the resources available to the child and to the family, and the like. Understanding the developmental impact of life on the street requires taking these differences into account.

Diversity occurs not only within cultures and societies but also between cultural groups within a society. In North American society, for example, cultural differences can influence the supports for and expectations of a child in major ways. Patricia Greenfield demonstrated such influence in a research study of routine parent-teacher conferences between Anglo teachers and Latina mothers (Greenfield, 1995). Greenfield observed and analyzed the conferences in terms of differences in personal and family values expressed or implied during the conferences. During the conferences, the Anglo teachers uniformly sought to highlight the individual achievements of the child (“Carmen is doing well with her spelling”). But many of the Latina mothers preferred to direct the conversation toward how the child fit into the family and into the classroom group (“Carmen is such a help to me and so friendly”). The parents’ remarks reflected differences in general cultural values—the Anglo parents valuing independence somewhat more, but the Latinx parents (sometimes) valuing *interdependence* more. The result was frustration with the conference on the part of both teachers and parents and less effective support for the children in their efforts to succeed socially and academically.

Yet even among these parents and teachers, there were differences: some parents and teachers adjusted to each other’s conversational priorities, regardless of ethnic background. This adjustment was fortunate because chronic miscommunication among caregivers—and the subsequent less effective support—can impair a child’s social and cognitive development in the long term.

## Methods of Studying Developmental Psychology

As a field of study, developmental psychology bases its knowledge on systematic research, study, or investigation of continuity and change in human beings. The methods used are quite diverse, but all bear some relationship to the **scientific method**, procedures to ensure objective observations and interpretations of observations. As noted in this section, the scientific method allows for considerable variety in how research studies might be conducted. In fact, it is more accurate to speak of many scientific methods rather than just one.

### The Scientific Method

Due to their adherence to the scientific method, all scientific research studies have a number of qualities in common, whatever their specific topic. For various practical reasons,



## What Do You Think?

A psychologist once said that “every parent believes in nurture until they have their *second* child.” What do you think she was getting at with this comment? If you happen to be a parent of at least two children, share your opinion of the comment with a classmate who is not a parent or with one who is a first-time parent. And vice versa: if you’ve raised no children, or only one, compare your opinions to those of a second- or third-time parent.

the qualities cannot always be realized perfectly, but they form ideals to which to aspire (Cherry, 1995; Levine & Parkinson, 1994). The procedures are as follows:

1. *Formulating research questions.* Research begins with questions. Sometimes these questions refer to previous studies, such as when a developmental psychologist asks, “Are Professor Deepthought’s studies of thinking consistent with studies of thinking from less developed countries?” Other times they refer to issues important to society, such as “Does early childhood education make kids more socially skilled later in childhood?” This part of the research process is similar to the reflection and questioning often engaged in by parents, teachers, nurses, and other professionals concerned about human growth and development.
2. *Stating questions as hypotheses.* A **hypothesis** is a statement that expresses a research question precisely. In making a hypothesis out of the earlier question regarding early childhood education, a psychologist needs to be more specific about the terms *early childhood education* and *social skills*. Is any child care center considered *early childhood education* or only those with employees with degrees in early childhood education? Does *socially skilled* mean making eye contact and smiling or does it require initiation of activities with others? After the terms of the question are clarified, the hypothesis is usually stated as an assertion that can be tested (“Children who attend preschools with early childhood education experts initiate more activities than those who did not”), rather than as a question (“Does early childhood education make children more socially skilled?”).
3. *Testing the hypothesis.* Having phrased a research question as a hypothesis, researchers can conduct an actual study about it. As the next section describes further, they can do this in a number of ways. The choice of method usually depends on the type of research question being asked, as well as convenience or efficiency, ethics, and scientific appropriateness. No research method is perfect, although some are more suited for particular research questions than others.
4. *Interpreting and publicizing the results.* After conducting the study itself, psychologists have a responsibility to report its outcomes to others by presenting them at conferences and publishing them in journal articles. Their reports should include reasonable interpretations or conclusions based on the results and enough details to all other psychologists to replicate (or repeat) a study themselves to test the conclusions. In practice, the limits of time (at a conference presentation) or space (in a journal) sometimes compromise this ideal.

**hypothesis** A precise prediction based on a scientific theory; often capable of being tested in a scientific research study.

There is a wide range of ways to carry out these steps, each with its own strengths and limitations. Viewed broadly, psychological studies can be organized into two groups based upon the type of research questions that the studies are designed to address: studies that attempt to answer questions about *causality*, and studies that attempt to answer questions about *association*. Researchers that ask questions about causality focus on how changes in one variable cause changes in another, while researchers who pose questions about association focus on identifying relationships (i.e., “covariations” or “correlations”) between

### Street Children: Comparing Paraguay and North America

Like all countries of Latin America, Paraguay contains children and youths who are popularly called “street children.” They are a serious concern for the authorities in this country, as indeed they are everywhere, including in North America. Who are the street children, and what do they need? The sociologist and social worker Benno Glauser investigated these questions in Paraguayan society, using interviews and case studies of street children and their families. He was surprised to find it was not at all clear what street children have in common with one another or what they therefore needed (Glauser, 1997). The ambiguities he encountered have implications for how we should think about and deal with street children in more developed societies such as the United States or Canada.

In Paraguay, political leaders, social workers, and other makers of public opinion used the term “street children” to refer to youngsters in cities who lacked a home or family, spent nights on the street, and either begged or worked at various semilegal or illegal activities to get money for food. Yet Glauser found that real street children were much more diverse than this definition implies. Some still slept with their families, for example, and usually spent days on the street only to attend to a job (e.g., selling flowers). Some deliberately slept out, but only occasionally or for selected periods because of their employment (e.g., giving street directions to tourists for money could

be done only in the tourist season). Some never saw their parents but slept in the home of another relative or some other responsible adult. And some (a minority) fit the definition of the authorities: they never saw family or relatives, banded together with other homeless children for mutual protection, and always slept on the street. This last group was much more vulnerable to physical abuse, more likely to become sick, and more likely to become involved in criminal and other illicit activities (e.g., drugs or child prostitution). This finding has been confirmed by other research on street children (Campos et al., 1994).

Unfortunately, as Glauser discovered, the authorities tended to treat all street children as if they belonged to this last group and, therefore, were all in need of rather heavy-handed protection from abuse, disease, and poverty. Policies and actions favored (1) interrupting children’s economic activities (e.g., washing car windshields at street corners), (2) moving children out of sight by having police pick them up and take them to more remote areas of the city, and (3) encouraging children to attend school and their caregivers to support children’s attendance. Most of these actions proved either inappropriate or ineffective. Usually, for example, a child’s job was not a “hobby” in spite of its informal status. Poor families often needed the child’s income, or at least needed the child not to be an economic burden on the family. So parents and other relatives did not regret a child working. In fact, they often

variables. Different methods are then employed by researchers to seek answers to these two types of questions. These methods vary in the length of time required to complete the study, the extent of intervention and control exercised by the researcher, and the sampling strategies used to recruit participants. The methodologies often get combined in various ways, depending on the questions the studies are investigating. Table 1.3 summarizes the various possible methods and is helpful in reviewing the explanations given in the sections that follow.

### Researching Questions about Causality

- What is the effect of video game violence on aggressive behavior?
- What are the effects of age on children’s abilities to interpret emotions?
- What are the long-term effects of a preschool program for low-income children on academic achievement and occupational success?
- What are the effects of smartphone use at bedtime for adolescent sleep quality?

Each of the above questions addresses important cause-and-effect relationships. To clearly and convincingly answer these questions and others like them, researchers must conduct experiments.

### Street Children: Comparing Paraguay and North America *continued*

believed that a job developed character and a sense of responsibility. School, on the other hand, was widely regarded as a bad investment among poor families because it led to few jobs and cost money for tuition once a child moved beyond the earliest grades (schoolchildren, in fact, often felt *more* rather than less pressure to work simply to pay the cost of education). And removing children from sight, as the police frequently did, accomplished little in the long term. Children simply walked back to their workplace or living places and began again—though often after experiencing humiliation at the hands of the police. For two reasons, in fact, Glauser suspected that Paraguayan policies and practices regarding street children were serving the interests not of the children but of well-off adults. The first was the emphasis by the police (and other leaders of society) on simply getting street children out of sight, a strategy all too common in some American communities as well (Vissing, 1996). The second was the neglect of children who might need protection and help but are “hidden” from public view, such as unpaid child servants, child prostitutes, or child soldiers in the Paraguayan army. These groups were at least as common as street children but were ignored in all public discourse.

The Paraguayan experience has two important implications about street children in more economically developed countries such as the United States. One

implication is about diversity: it is likely here, as in Paraguay, that “street children” come in different types, from those who merely work the street during the day, to those who sleep there intermittently, to those who live there essentially full time. All may need protection, though not necessarily to the same extent or in the same way. As in Paraguay, street children do not necessarily lose touch totally with parents, other relatives, or other responsible adults. Alternative living arrangements (e.g., a foster home) may—or may not—be better for a child in any particular case, especially for children who already receive significant, though partial, care from their biological parents or other close relatives.

A second point is that in a developed country such as the United States, we understandably hope that school is a more productive investment than may be the case in Paraguay. Here, police and social workers may be more justified in encouraging street children to attend school than they are in less developed countries. But such reasoning may be more hope than reality even in the United States, where living conditions for poor families sometimes approach Third World conditions in spite of proximity to wealth, and where schools face tremendous educational challenges as a result (Dalglish, 1998; Kozol, 1991, 1995). Children of industrialized nations, or at least some of them, may not be so very different from children of developing nations.

**TABLE 1.3** Methods of Studying Human Development

Research Question	Method	Description
Question about Causality	Experimental study	Observes persons where circumstances are carefully controlled so that just one factor varies at a time
	Cross-sectional study	Observes persons of different ages at one point in time
	Longitudinal study	Observes same group(s) of persons at different points in time
	Sequential studies	Observes persons from different cohorts at the same <i>and</i> different points in time.
Question about Association	Naturalistic study	Observes persons in naturally occurring situations or circumstances
	Correlational study	Observes tendency of two behaviors or qualities of a person to occur or vary together; measures this tendency statistically
	Survey	Brief, structured interview or questionnaire about specific beliefs or behaviors of large numbers of persons
	Interview	Face-to-face conversation used to gather complex information from individuals
	Case study	Investigation of just one individual or a small number of individuals using a variety of sources of information

## Experimental Studies

If a researcher was interested in determining if playing violent video games causes an increase in aggressive behavior, the researcher could manipulate the level of violence in video games to which two groups of players are exposed—one group of participants plays a violent video game and another group plays a nonviolent video game. In order to ensure that the results from the study reflect only the effects of the level of violence in the video games, all other potential variables must be kept constant. For example, the two groups of video game players should be equivalent with respect to age, sex, level of education, familiarity with video games, etc. The conditions under which each group plays the video games should be the same as well: each group should play the games for the same amount of time and in the same kind of environment. Lastly, the researcher needs to be able to systematically, and accurately measure the level of aggression each player exhibits after playing the video games. An **experimental study** just like this was conducted by Hasan, Bègue, Scharkow, and Bushman (2013) that involved two groups of college students who played either violent or nonviolent video games twenty minutes a day for three consecutive days. After each video game session, the level of aggression of the players was assessed by measuring the duration and volume of a blast of loud noise to which the players subjected a *confederate* (someone working with the experimenter who was pretending to be a participant in the study). The results were clear: college students who played the violent video games were far more likely to subject a confederate to louder and longer blasts of noise than college students who played nonviolent video games. The significant differences between the two groups grew larger after each day's video game session. Figure 1.3 illustrates the observed pattern of aggression.

Because this study was an experiment, Hasan and his colleagues held constant all the factors that might influence aggressive behavior *except* video game content, the one they were studying. This deliberately varied factor that we believe is the cause is often called the **independent variable**. The factor that varies as a result of the independent variable, showing an effect—in this case, the level of aggression exhibited toward another person—is often called the **dependent variable**.

The experimental method also requires making decisions about the population, or group, to which the study refers. When every member of the population has an equal chance of being chosen for the study, the people selected comprise a **random sample**. If not everyone in a population has an equal chance of being chosen, the sample is said to be *biased*. Investigators can never be completely sure they have avoided systematic bias in selecting individuals to study, but they can improve their chances by defining the population they are studying as carefully as possible and then selecting participants only from that population.

**experimental study** A study in which circumstances are arranged so that just one or two factors or influences vary at a time.

**independent variable** A factor that an experimenter manipulates (varies) to determine its influence on the population being studied.

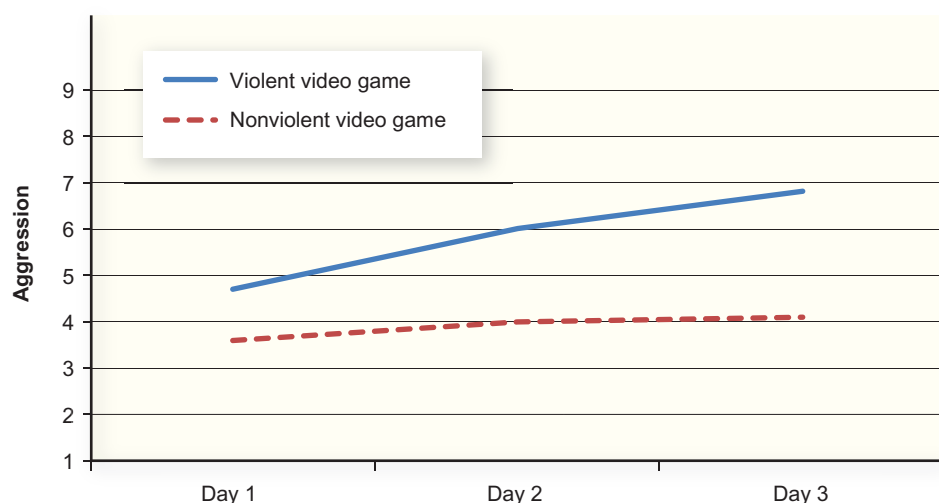
**dependent variable** A factor that is measured in an experiment and that *depends on*, or is controlled by, one or more independent variables.

**random sample** In research studies, a group of individuals from a population chosen such that each member of the population has an equal chance of being selected.

**FIGURE 1.3**  
Effects of Violent and Nonviolent Video Games on Aggression over Time

Exposure to video games for 20 minutes during three consecutive days resulted in significantly higher rates of aggression in college students who played violent video games compared to those who played nonviolent video games.

Source: Adapted from Hasan, Bègue, Scharkow, and Bushman (2013).





When Hasan (2013) and his research team studied the effects of violent video games on college students, for example, the population to which they limited their observations consisted only of young adults who were attending college, and sampled students from this population at random. Interpretations of their results therefore apply only to this population of young adults. In later studies, they (or other investigators) could sample other populations, such as persons of other ages or cultural backgrounds.

When assigning participants into groups, such as the violent video game group and the nonviolent videogame group, **random assignment** is used. When participants are randomly assigned to a group, each participant has an equal chance of being placed in any group so that theoretically each group is balanced. As we noted above, in the Hasan (2013) study we would want participants in each group to be similar in age, sex, education, socioeconomic status, previous violent behavior, experience playing video games, etc. Random assignment allows us to be relatively sure that any change in our dependent variable is due to differences in our independent variable and not because all of the skilled gamers are in the violent video game group.

Experimental studies incorporate a number of precautions to ensure that their findings have **validity**, meaning they measure or observe what they intend to measure. One way to improve validity is to observe not one but two sample groups, one an experimental, or treatment, group and the other a control group. The **experimental group** receives the treatment, or intervention related to the purposes of the experiment. The **control group** experiences conditions that are as similar as possible to the conditions of the experimental group, but without experiencing the crucial experimental treatment. Also, to ensure that the experimental and control groups are comparable prior to receiving any treatment or intervention, participants are usually *randomly assigned* to each group. Comparing the results of the two groups helps to explicitly establish the effects of the experimental treatment.

Because of its logical organization, the experimental method often gives clearer results than other types of studies do. But because people sometimes do not behave naturally in experimental situations, one criticism of the experimental method is that its results can be artificial.

Another limitation to the experimental method is that participants cannot always be randomly assigned to the experimental and control groups. This is frequently the case when researchers are seeking the answers to causal questions involving variables like gender, ethnicity, marital status, and age. With each of these variables, participants are already in a group (for example, male or female, single or married, child or adult, etc.); random assignment to these groups is not possible. This poses a challenge when researchers try to produce clear and compelling answers to questions like “What are the effects of age on self-esteem in elementary-aged children?” or “What are the effects of gender on the way adolescents use social media?” Because participants cannot be randomly assigned to experimental and control groups with these kinds of variables—often called “participant variables” because they describe characteristics of certain types of participants—researchers cannot be sure whether the results of their studies are caused by the variable that defines the groups (that is, the participant variable) or by some other variable. In other words, it is impossible to conduct true experiments if the independent variable is a participant variable. Instead, when researchers ask such causal questions, they must conduct **quasi-experiments**.

### *Quasi-experimental Studies*

In general, quasi-experimental studies represent a large variety of studies that share a common feature: members of pre-existing groups are selected for comparison. Of particular interest to developmental psychologists are quasi-experiments that address causal questions pertaining to changes (or continuities) in people over time. Quite often, *age* is employed as a way to quantify time or to categorize participants. Developmental psychologists can either compare people of different ages at one point in time (called a *cross-sectional study*)

**random assignment** In research studies, each participant has an equal chance of being placed in, or assigned to, each group. This increases our confidence that differences in the dependent variable are due to the independent variable.

**validity** The degree to which research findings measure or observe what is intended.

**experimental group** In an experimental research study, the group of participants who experience the experimental treatment while in other respects experiencing conditions similar or identical to those of the control group.

**control group** In an experimental research study, the group of participants who experience conditions similar or identical to the experimental group, but without experiencing the experimental treatment.

**quasi-experiments** Experiments in which participants cannot be randomly assigned to the experimental and control groups; instead, members of pre-existing groups are selected for comparison (for example, males versus females, children versus adolescents, or private school students versus public school students).



or compare the same people at different times as they get older (called a *longitudinal study*). A method that combines elements of both time frames is the *sequential study*. Each method has its advantages and problems.

**cross-sectional study** A study that compares individuals of different ages at the same point in time.

A **cross-sectional study** compares persons of different ages at a single point in time. One such study compared preschool children (age four) and early-school-age children (age six) on their ability to distinguish between real and apparent emotions (Joshi & MacLean, 1994). Half of the children lived in India, and the other half lived in Great Britain. All of the children listened to stories in which a character sometimes had to conceal his or her true feelings (such as when an uncle gives a child a toy that the child did not really want) and described both how the character really felt and how the character seemed to feel. The results shed light on how children distinguish sincerity from tactfulness. The older children were more sensitive to this distinction than the younger ones were, but the Indian children (especially girls) also were more sensitive to it than the British children were.

**longitudinal study** A study of the same individuals over a relatively long period, often months or years.

A **longitudinal study** observes the same participants periodically over a relatively long period, often years. An example is the twenty-three-year follow-up of the effects of a demonstration preschool program for low-income children that originally took place in 1967. The four-year-old “graduates” of the program were assessed every few years following the program until they were all twenty-seven years old (Schweinhart et al., 1993; 1999). Researchers gathered interviews, school achievement test results, and reports from teachers and (later) employers and compared them to results from an equivalent group of four-year-olds who had been identified at the time of the program but did not participate in it. The results are gratifying: the graduates have succeeded in school and employment better than the nongraduates and cost taxpayers less by needing less public aid and fewer medical and other services. Cross-sectional and longitudinal studies both have advantages and limitations. Cross-sectional studies can be completed more quickly, but they do not guarantee to show actual change *within* individuals. In the study of children’s knowledge of emotions, for example, the fact that older children were more knowledgeable does not ensure that each *individual* child becomes more knowledgeable. It shows only an average trend for the group; in certain individuals, knowledge of emotions may improve little as they get older, or even decrease, whereas other individuals may experience a huge leap in knowledge! Why these differences in individual change occur remains a question—and an urgent one if you work with people as a teacher, a nurse, or a counselor. See, for example, the experiences described in the interview with Marsha Bennington, speech-language pathologist in the “Working With” feature.

**cohort** In developmental research, a group of subjects born at a particular time who therefore experience particular historical events or conditions.

From the perspective of lifespan psychology, however, a more serious limitation of cross-sectional studies is their inability to distinguish among **cohorts**, or groups of people born at the same time and therefore having undergone similar developmental experiences. For example, a cohort of children born in 1980 shared experiences of less pre-kindergarten education and fewer electronic devices than a cohort born in 1995. As a result of this difference, comparing their abilities and skills with electronics in the 2010s may make the older cohort (the ones born in 1980) appear less intellectually able and less skilled. A cross-sectional study may leave the impression that differences in the cohorts reflect true developmental change instead of the effects of being born earlier in the technology boom. Cross-sectional studies always contain this ambiguity, especially when they compare groups that differ widely in age, as is common in studies of adulthood.

Longitudinal studies do not eliminate the ambiguity created by historical changes in cohorts, but they at least reveal more truly “developmental” change because they show the steps by which particular individuals or groups actually change over time. But in doing so, they pose a practical problem: by definition, longitudinal studies take months or even years to complete. Over this time, some of the original participants may move away or die and stop participating, which is known as attrition. Investigators may become hopelessly bogged down with other work and fail to complete the original study, or government funding to support the work may disappear prematurely. Given these problems, psychologists have conducted cross-sectional studies much more often than longitudinal studies,



Longitudinal studies are well-suited for studying long-term constancy and change in individuals. How are people the same after several years of maturing, and how are they different?

Source: Lyudmyla Kharlamova/Shutterstock.com.

despite the latter's special value. The dilemmas and ambiguities posed by time frames can be partially solved by **sequential studies**, which combine elements of cross-sectional and longitudinal studies. In sequential research, at least two cohorts are observed longitudinally and comparisons are made both within each cohort across time and between the cohorts at particular points in time. This approach provides information about actual developmental changes within individuals, but also about historical differences among cohorts that might create the impression of truly developmental changes.

A good example of sequential research is the work by K. Warner Schaie (1994; 2013) studying changes in cognitive abilities of adults. A variety of earlier, cross-sectional research suggested that adults' general reasoning ability *decreases* with age—for example, that older adults score lower than younger ones on tests of general academic intelligence. Schaie's sequential research, however, modified this picture substantially. By testing several successive cohorts of young adults and then testing each cohort again at a later age, Schaie found that (1) many cognitive skills do not decline with age, particularly if they are used on a daily basis; (2) earlier cohorts generally achieved lower scores than later cohorts on tests of cognitive abilities; and (3) some individuals showed more decline with age than did others. None of these findings would have resulted from either a cross-sectional or a longitudinal study alone.

**sequential study** Research in which at least two cohorts are compared both with each other and at different times.

### Researching Questions about Association

- How is time spent at home related to the level of stress experienced by adolescents and their parents?
- How is bed-wetting related to the social stressors faced by young children?
- How are stereotypes based on race or ethnicity related to actual academic performance?
- How is bilingualism related to the reading abilities of 11-year-olds?

Notice how these questions about association differ from the earlier questions about causation. Questions about association do not imply a causal connection between two variables; they simply suggest that a relationship of some kind exists between two variables. Also, there is no implied order or sequencing of events in questions of association as there is in questions of causation. Researchers can investigate questions about association using a wide variety of research methodologies, often described as “observational methods.” Researchers can either observe and note the behaviors of people directly in a variety of settings (for example, in classrooms, on playgrounds, at movie theaters, or in laboratory settings) or they can ask people to observe and report on their own behaviors by asking them to respond to a set of questions. The various methods for researching questions about association are reviewed next.

**Communication Difficulties across Development**

Marsha Bennington works as a speech-language pathologist for a school district and in private practice. She thus sees individuals who range widely in age, from early childhood through adulthood. She talked, among other things, about how speech and language needs change across the course of development.

**Kelvin:** *Speech-language pathologists used to be called “speech therapists,” right? Why the name change?*

**Marsha:** Our clientele has changed. We see people from a greater variety of language backgrounds now. Classrooms include more kids with disabilities, and more infants with medical problems at birth survive into adulthood, thanks to modern medicine. Our work is more diverse than it used to be, and the label “speech therapy” doesn’t really describe it any more.

**Kelvin:** *What do you mean?*

**Marsha:** We address more than just speech problems. People may face an underlying inability to communicate and have a lot of difficulty with syntax or word choice. They might have trouble with reading, which really grows out of problems with focusing attention or with connecting printed and spoken language. We don’t just deal with young children who mispronounce specific sounds—who say /t/ for /k/, for example.

**Kelvin:** *Sounds like your job is as much about “cognition” as it is about speech.*

**Marsha:** You’re right, although even “cognition” may be narrowing it down too much. Motor skills can play a role, as can people’s attitudes and feeling or their parents’ attitudes and support. It depends on the individuals’ particular needs and on their age.

**Kelvin:** *Are the problems you see in young children different from those of older kids or adults you work with?*

**Marsha:** You can’t overgeneralize, but there do seem to be differences. A “typical” referral from a kindergarten or first-grade teacher tends to be specifically speech related. A child may articulate certain sounds incorrectly—*wun* instead of *run*—or a child may have some disfluency, that is, “stutter.” I do see some young children with underlying language problems—constant syntax errors and trouble with finding words—but not many at this age.

**Kelvin:** *Does this balance change among older students?*

**Marsha:** It does change. By the upper elementary grades, students are most likely initially referred to me because they’re having trouble with reading. By this age, reading can become a real effort because it depends so much on fluent speech. If your spoken sound or your spoken syntax isn’t “standard,” it’s hard to decipher written sounds or sentences.



In naturalistic research, psychologists study human behavior as it normally occurs in everyday settings. What could be learned from observing these children playing with blocks together?

Source: Dragon Images/Shutterstock.com.

**Naturalistic Studies**

**Naturalistic studies** purposely observe behavior as it normally occurs in natural settings, such as at home, at school, or in the workplace. Bei Bei and colleagues used this strategy to explore how adolescent sleep differed when in school and when on vacation (Bei et al., 2014). As you can imagine, sleeping in a sleep lab is inconvenient and uncomfortable, so the researchers in this study used an actigraph, similar to a wrist-based fitness tracker, to monitor participant sleep every day for four weeks: the last week of one term, two weeks during break, and the first week of the next term. Specifically, researchers were able to monitor when participants went to bed, how long it took them to fall asleep, how long they slept, and how much they woke up at night. During the first week of break, adolescents went to bed later and slept longer than during the school term, a pattern that stabilized during the second week of break. Older adolescents went to bed later than younger adolescents, and females in the study took longer to fall asleep and slept longer than males. Though these results might not be surprising to many, this type of information is only available to us when we can measure such behaviors where they happen and when they normally happen.

A particular strength of naturalistic research is that researchers observe naturally occurring or genuine behavior in settings that are a normal part of the participants’ day. Naturalistic research does not face the criticism often levied at experimental research due to the experiment’s dependence on highly controlled (and thereby, contrived) testing

**Communication Difficulties across the Lifespan** *continued*

**Kelvin:** *What do you do in these cases?*

**Marsha:** It depends! I might work on a child's oral language to build awareness of syntax or of phonological difficulties. But by the time a child is in fourth or fifth grade, strategies to compensate for reading difficulties may help more. I might encourage the child to listen carefully to the teacher's oral directions or to ask for them both orally and in writing.

**Kelvin:** *Does that become more of a problem in high school and beyond?*

**Marsha:** Well, adolescence can aggravate a person's self-consciousness, and any speech or language problems only add to it. The older kids I see definitely need reassurance to boost their motivation and confidence. They've started to learn to hide their problem from others, and that usually means they avoid reading and writing, avoid speaking in class, that sort of thing.

**Kelvin:** *What happens after high school? The bigger world after graduation must pose challenges.*

**Marsha:** It's fair to say that every transition poses a challenge: home to kindergarten, elementary to high school, high school and beyond. A teenager may have functioned all right in high school, thanks to some help from the speech-language pathologist, but find that her first job requires more language skills than she

expected. So back she comes for more help . . . [pauses and frowns]

**Kelvin:** *Except?*

**Marsha:** Except that help for adults, once they're not in school, can be hard to find and too expensive for many to afford.

**What Do You Think?**

1. Marsha described changes in the sorts of problems people of different ages bring to her. Do you think these should be called "developmental" changes, even though she is really talking about cross-sectional comparisons among age groups? Compare your opinion with that of a classmate.
2. Try retelling Marsha's comments from a more longitudinal (versus cross-sectional) perspective. Do they seem more or less true to life from this perspective? This question would make a good topic for an in-class debate if you and/or your instructor can organize one. In formulating your opinions, though, remember that you are talking about the development of a human *problem*, not about the normative course of development.
3. Given your ideas from questions 1 and 2, how helpful do you think the concept of "development" is for a speech-language pathologist? Would it be more or less helpful for a regular classroom teacher?

environments, but naturalistic observational research does run a greater risk of generating ambiguous results.

**Correlations**

Whether they are using naturalistic or more controlled research environments, most research studies look for correlations among variables. A **correlation** is a systematic relationship, or association, between two behaviors, responses, or human characteristics. When two variables tend to change in the same direction—both variables increase together or decrease together—the relationship is called a *positive correlation*; when they tend to change in opposite directions, it is called a *negative correlation*. The ages of married spouses are a positive correlation: older husbands tend to have older wives (though not strictly so). The age of a child and the frequency of bed wetting is a negative correlation: the older the child, the less frequent the bed wetting (though again, not strictly so).

When correlated factors can be expressed numerically, psychologists use a particular statistic, the *correlation coefficient* (abbreviated *r*), to indicate the degree of relationship between two behaviors or characteristics. The correlation coefficient is calculated in such a way that its value always falls between +1.00 and -1.00. The closer to +1.00 the value, the more positive the correlation; the closer to -1.00 the value, the more negative the correlation. Correlations near 0.00 indicate no systematic relationship between behaviors or characteristics, or an essentially

**naturalistic study** A study in which behavior is observed in its natural setting.

**correlation** An association between two variables in which changes in one variable tend to occur with changes in the other. The association does not necessarily imply a causal link between the variables.



random relationship. For various reasons, psychologists tend to consider correlations above  $+0.70$  or below  $-0.70$  as strong ones and those between  $+0.20$  and  $-0.20$  as weak ones.

When you read or talk about correlations, it is important to remember that correlations by themselves do not indicate whether one behavior or characteristic causes another; they indicate only that some sort of association exists between the two. The distinction is illustrated in Figure 1.4, which graphs the number of baby pictures taken versus the weight of the mother taking the photos. While the graph shows an inverse correlation—heavier mothers take fewer pictures—this does not mean that taking baby pictures is a good way to lose weight. In other words, there is no causal relation between the two. More likely, the correlation reflects the influence of a third factor that has an impact on both behaviors.

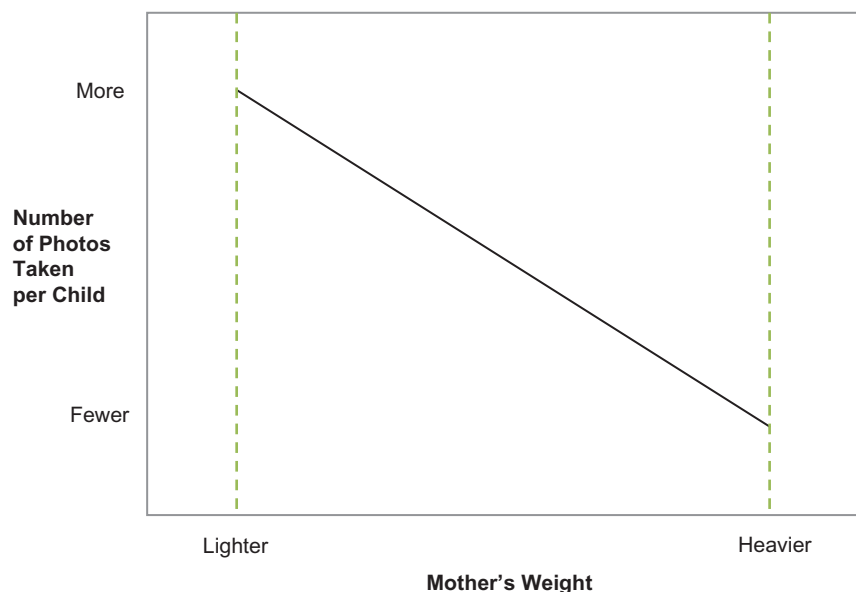
### Surveys

Developmental studies vary in how many people researchers collect information about or observe. The size of the group studied is called the research **sample**. At one extreme are large-scale **surveys** in which large numbers of people are asked to respond to specific questions. Grace Kao (1995) used this method to examine patterns of school achievement among Asian American youth. She was particularly interested in a common stereotype of Asian youngsters as “model students,” the belief that they excel academically. Using survey responses from about fifteen hundred Asian American students, parents, and teachers, as well as from about twenty-five thousand white counterparts, Kao compared family incomes, educational levels, and ethnic backgrounds with academic achievement. She found that the stereotype of the model student is rather misleading. Academic success varies substantially among particular Asian ethnic groups. It also depends more heavily on how much time and money particular parents invest in education for their particular children than on the educational, financial, or ethnic backgrounds of the family as such. In these ways, the Asian American students were no different from their white counterparts.

These conclusions seem especially persuasive because of the rather large sample of families on which they are based—an advantage of the survey method. But the method also has limitations. Survey questions tend to be “cut and dried” to ensure that the responses can be compared among large numbers of respondents. They tend not to explore subtleties of thinking or the reasons people have for taking certain actions or holding certain beliefs. Did some of Kao’s Asian American families invest more in education because their culture encourages them to do so or because they anticipated discrimination due to their ethnic background and regarded education as insurance against the negative effects of such discrimination? To answer questions such as these, researchers need methods that invite respondents to comment more fully, such as interviews and case studies.

**FIGURE 1.4**  
Correlation Is Not  
Causation

The number of pictures taken of an infant correlates with the weight of the child’s mother, with heavier mothers taking fewer pictures. But this does not mean that gaining weight *causes* mothers to stop taking pictures or that taking pictures *causes* mothers to gain weight. More likely a third factor, such as the number of previous children to whom the mother has given birth, causes both factors separately.





## Interviews

A research study that seeks complex or in-depth information may use **interviews**, or face-to-face directed conversations. Because they take time, interview studies usually focus on a smaller number of individuals than surveys do, perhaps several dozen or so. Carol Gilligan and her colleagues used interviews to learn more about how teenage girls cope with the stresses of dealing with gender role expectations as they grow up under different conditions (Brown & Gilligan, 1992; Taylor et al., 1995). Some interviews involved girls who were attending a private girls' boarding school and were from economically well-off families; others involved girls who were attending a public high school in a racially mixed, lower income community. The interview format allowed Gilligan to explore the girls' perspectives in depth and to find out when and how differences in their circumstances influenced their development as young women. As it turned out, economic and family supports did matter, but not always as Gilligan expected. A constant challenge for all girls was to find and remain true to their own perspective (or "voice," as Gilligan termed it). Doing so sometimes proved harder for well-off girls than for lower-income girls, though not necessarily.

**interview** A face-to-face, directed conversation used in a research study to gather in-depth information.

## Case Studies

When a study uses just one or a few individuals, it is called a **case study**. In general, a case study tries to pull together a wide variety of information and observations about the individual case and then present the information as a unified whole, emphasizing relationships among specific behaviors, thoughts, and attitudes in the individual. An example is a study by Robert Jimenez, Georgia Garcia, and David Pearson (1995) comparing the language skills and knowledge about reading of just three eleven-year-old children: one proficiently bilingual Latinx student, one proficiently monolingual white student, and one modestly bilingual Latinx student. Each child was interviewed at length about her perceptions of her own skills with each language. Each was also invited to "think aloud" while reading samples of text in each language (that is, the child told about her thoughts as she read along). Because of the time taken with each individual, the investigators were able to discover important subtleties about how each student read. The proficient bilingual reader, for example, thought of *each* language as an aid to understanding the other language, whereas the less fluent bilingual reader believed simply that her Spanish assisted her English.

**case study** A research study of a single individual or small group of individuals considered as a unit.

By its nature, a case study can explore an aspect of human development, looking for new or unexpected connections among behaviors, needs, or social relationships. This is the most common use of case studies. A second use is to confirm whether connections previously found in experimental studies actually occur in everyday, nonexperimental situations, even when conditions are not carefully controlled. The second use resembles the naturalistic studies described earlier in this section.

## Ethical Constraints on Studying Development

Sometimes, ethical concerns influence the methods researchers can use to study a particular question about development. Take the question of punishments administered by parents: what kinds of punishment are most effective, and for what reasons? For ethical reasons, we may be unable to experiment with certain aspects of this problem directly. Observing parents actually scolding and reprimanding their children would require delicacy at best. At worst, if the punishment became severe or physical, ethics might require our active intervention simply to protect the child from abuse.

For ethically sensitive questions, we may instead have to satisfy ourselves with less direct but more acceptable methods of study. We can interview a variety of parents about the methods of punishment they use, or we can ask experts who work directly with families what methods they think parents typically use. A few courageous families might allow us to observe their daily activities, with the understanding that we are interested in observing how they punish their children. But by being volunteers, these few families may not represent other families very well. In fact, most research studies conducted with human beings have samples that are disproportionately from western industrialized nations, highly

## What Do You Think?

Are some methods of developmental study inherently more effective than others? Try answering this question by organizing a multisided debate. Pick a successful developmental study (you can use any of the ones described in this chapter, for example), and assign each of three or four debating teams to design and argue the merits of some *alternative* method of studying the same question. In a second round of the debate, each team can try to refute the arguments of any of the other teams. Remember: there will be more than two sides to this discussion!

educated, rich, and democratic, which can limit how we generalize our findings (Henrich, Heine, & Norenzayan, 2010).

Generally, research about human beings faces at least three ethical issues: confidentiality, full disclosure of purposes, and respect for the individual's freedom to participate (American Psychological Association, 1992; 2010). In developmental psychology, all of these issues are complicated when the subjects are naturally vulnerable—when they are young, disabled, or older adults.

1. *Confidentiality.* If researchers collect information that might damage individuals' reputations or self-esteem, they should take care to protect the identities of the participants. Observing parents' methods of managing their children might require this sort of confidentiality. Parents may not want just anyone to know how much and how often they experience conflicts with their children. Similar concerns might influence research on teachers' methods of classroom management or caregivers' styles of caring children. In such cases, investigators should not divulge the identities of participants in a study without their consent, either during the conducting of the study or afterward when the results are published.
2. *Full disclosure of purposes.* Participants in a study are entitled to know the true purposes of any research study in which they participate. Most of the time, investigators understand and follow this principle carefully. But at times it can be tempting to mislead participants. In studying teachers techniques for working with disruptive children, for example, researchers may suspect that stating this research purpose honestly will cause certain professionals, as well as the people under their care, to avoid participation. Investigators may suspect that telling the truth about the study will make the participants distort their behavior, hiding their less desirable behaviors and conflicts. In this sort of study, therefore, it might seem that intentional deception would produce more complete observations and in this sense make the research more "scientific." But investigators would purchase this benefit at the cost of their long-run reputations with participants. Purposeful deception may sometimes be permissible, but only when no other method is possible and when participants are fully informed after the study of the deception and its reasons.
3. *Respect for individuals' freedom to participate.* As much as possible, research studies should avoid pressuring individuals to participate. This may not be as simple as it first appears. Because psychologists have a relatively high status in society, some people may be reluctant to decline an invitation from them to participate in "scientific research." Investigators therefore may have to bend over backward to assure some individuals that participation is indeed voluntary. Researchers cannot simply assume that every potential participant automatically feels free to decline if approached. After all, who wants to feel like they're interfering with the progress of science?

**informed consent** An agreement to participate in a research study based on understanding the nature of the research, protection of human rights, and freedom to decline to participate at any time.

When all three principles are closely followed, they allow for what psychologists call **informed consent**: the people or groups being studied understand the nature of the research, believe their rights are being protected, and feel free to either volunteer or refuse to participate. Informed consent, therefore, forms a standard, or ideal, for research to aim for and one that most studies do in fact approximate.

### What Do You Think?

Why do you think ethics has become a bigger concern for developmental research in the past three decades? Brainstorm as many ideas about this as you can: have people changed, or research projects, or the conditions of modern life, or . . . ?

As the preceding discussion indicates, however, consent that is completely informed may prove difficult to achieve in some cases. This is especially so for research on vulnerable populations, such as children, people with certain disabilities, older individuals, or members of cultural groups who do not speak the native language. These people tend to depend on the goodwill and wisdom of others, including researchers themselves, to explain the purposes of a study and keep their best interests in mind. In studying an adolescent who speaks little English, for example, investigators may well wonder whether he fully understands the purposes of a study, even when those purposes are explained. Even if the person does understand, does he feel truly free to participate or decline? Or does he, as an individual, simply assume he must cooperate with whatever investigators request?

In studying children in particular, the developmental levels of the participants should influence the way investigators resolve ethical issues (Thompson, 1990). As a rule, children understand the purposes of a research project less well than do adults. Therefore, what the child will be experiencing during the study should be described at an appropriate level, and if the child is old enough to make decisions about participation, researchers should attain assent, or their agreement to participate. Moreover, it is critical that the parents are thoroughly informed and give consent for their child's participation. Children also are more vulnerable to stressful research procedures, such as experimentation with the effects of personal criticism. Older children and adults, on the other hand, are more prone to self-consciousness and are more likely to detect—and survive—implied personal criticisms. Thus, investigators need to be more careful in studying problems that might shame a person publicly (such as by asking, “How often do you cry?” or “What problems have you had because your parents are divorced?”).

Wherever possible, the right to decide about whether to participate in a research study rests with the individual, provided he or she understands the nature of the study and feels truly free to decline participation. When these conditions hold only partially, such as with a child who speaks limited English, parents or other legal guardians share the ultimate right to decide whether the child should participate. When the conditions do not hold at all, such as with infants or adults with little or no language ability, parents and guardians essentially take over the right to decide about participation.

## Strengths and Limitations of Developmental Knowledge

As this chapter has demonstrated, human development has to be studied in particular ways and with certain limitations in mind. Because time is a major dimension of development, its impact must be approached thoughtfully. Yet the very nature of time poses real problems for studying at least some major questions. Especially when studied across infancy, childhood, and adolescence, people may “take too long” to develop within the time frame available to study them. Also, because lifespan psychologists deal with people, they must treat participants with respect and abide by the usual standards of decency and consideration for human needs. Finally, when dealing with especially vulnerable people, developmental psychologists must take extra care to determine the true best interests of individuals who participate in studies, even when those participants do not know what they are being asked to do or do not feel free to refuse even when they do know.

Lest these limitations sound overly discouraging, be assured that in spite of them, developmental psychologists have accumulated considerable knowledge about people of all ages in recent decades and continue to do so. The remaining chapters of this book should make that point amply clear. Developmental psychology may not have definitive answers for all important questions about human nature, but it does have the answers for a good many.

- **What in general is human development?** Human development concerns continuities and changes in a person's long-term growth, feelings, and patterns of thinking. It occurs in several domains: physical, cognitive, and psychosocial. The domains of development interact in many ways, and individuals always develop as whole persons rather than in separate parts.
- **Why is it important to know about development?** Studying development can help you develop appropriate expectations about human behavior and its changes. It can help you respond appropriately to individuals' behavior and recognize when unusual behaviors are cause for concern. Studying development can also give you self-knowledge and understanding of your past.
- **How has society's view of childhood changed over time?** Until just a few hundred years ago, childhood and adolescence were not regarded as distinct periods of life. Social changes, including the industrial revolution, led to awareness of children's unique needs and vulnerability, but also contributed to modern (and mistaken) views of children as incompetent, passive, and unimportant. In the nineteenth and twentieth centuries, the first research studies of children consisted of baby biographies and structured observations of children at specific ages.
- **What general issues are important in developmental psychology?** Developmental psychology shares much with other forms of developmental study. However, it also has a distinctive emphasis on four themes: (1) continuity within change, (2) lifelong growth, (3) changing meanings and vantage points, and (4) diversity among individuals.
- **How do developmental psychologists go about studying development?** Research about developmental

psychology tries to follow the scientific method: formulating research questions, stating them as hypotheses, testing the hypotheses, and interpreting and publicizing the results. Developmental research tends to focus either on questions about causality—studied by using experimental or quasi-experimental methods—or questions about association—studied by using observational designs, including naturalistic observation, correlational designs, surveys, interviews, or case studies. Cross-sectional studies compare individuals of different ages at one point in time. Longitudinal studies observe human change directly by following the same individuals over relatively long periods of time.

Naturalistic methods observe individuals in natural contexts as much as possible. Experimental methods try to control or hold constant extraneous conditions while varying only one or two specified variables. Surveys, interviews, and case studies each sample different numbers of people and provide different levels of context in their information.

- **What ethical considerations should guide the study of development?** Ethical considerations guide how development can be studied, sometimes ruling out certain studies altogether. Generally, studies are guided by principles of confidentiality, full disclosure of purposes, and respect for the individual's freedom to participate. Research about children and vulnerable adults should strive for informed consent from participants and their parents or guardians. The specific ethical concerns in studying development depend on the age or developmental level of the individuals studied, as well as on the content of the study itself.

## Key Terms

ageism (p. 13)  
case study (p. 27)  
cognitive development (p. 5)  
cohort (p. 22)  
control group (p. 21)  
correlation (p. 25)  
cross-sectional study (p. 22)  
dependent variable (p. 20)  
development (p. 4)  
domain (p. 5)

experimental group (p. 21)  
experimental study (p. 20)  
human development (p. 4)  
hypothesis (p. 17)  
independent variable (p. 20)  
informed consent (p. 28)  
interview (p. 27)  
longitudinal study (p. 22)  
naturalistic study (p. 25)  
norms (p. 13)

physical development (p. 5)  
psychosocial development (p. 6)  
quasi-experiment (p. 21)  
random assignment (p. 21)  
random sample (p. 20)  
sample (p. 26)  
scientific method (p. 16)  
sequential study (p. 23)  
survey (p. 26)  
validity (p. 21)



# Theories of Development

## CHAPTER

# 2



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### Chapter Outline

**The Nature of Developmental Theories**

**Psychodynamic Developmental Theories**

**Behavioral Learning and Social Cognitive Learning Developmental Theories**

**Cognitive Developmental Theories**

**Contextual Developmental Theories**

**Developmental Theories Compared: Implications for the Student**

### Focusing Questions

- What are developmental theories, and how are they useful?
- How have psychodynamic theories influenced thinking about development?
- How have developmental theories based on learning theories contributed to our understanding of developmental change?
- How do cognitive developmental theories help us to understand changes in thinking and problem solving?
- How have contextual approaches to development broadened our view of developmental change?
- How are lifespan theories useful when examining child and adolescent development?
- How does comparing developmental theories help us to understand developmental change?

When Elizabeth, age three, began nursery school, she cried and screamed every day when her mother left her. “Home!” and “Mama!” were the only words she seemed able to produce between sobs, which continued for much of each morning. Her concerned teachers met to discuss what to do about Elizabeth.

“It’s best to ignore the crying,” said one teacher. “If you give her lots of special attention because of it, you will reinforce the crying, and she’ll just keep going longer.”



“But we can’t just ignore a crying child,” said another. “This is a new and strange situation, and her crying shows that she’s feeling insecure and abandoned. Look at her! She needs comfort and emotional support so that she can feel safer and more secure. At least give her a hug!”

“I think she’s unsure whether her mother really will come back for her,” said a third teacher. “Maybe we can find ways to help her understand and remember our daily routine here.”

The teachers decided to follow all of this advice. They agreed not to fuss too much over Elizabeth’s tears and to give her lots of comfort and support when she was not crying. They also helped Elizabeth draw a picture chart of the daily schedule and tape it to her cubbyhole. Finally, they talked with her mother about what they had observed and the solutions they were trying.

How well did their approaches work? Elizabeth stopped crying—more quickly, in fact, than any of the teachers had expected. Although all three teachers agreed that Elizabeth clearly was happier and more at ease, no one was sure exactly how or why the change had come about.

A second question we might ask is: How might the theories we will encounter in this chapter (and throughout this text) help us understand the developmental changes we will see in Elizabeth as she moves through early childhood into the school years? What will she be like as a teenager, a young adult, and beyond? In what ways will developmental theories help us—and Elizabeth and her family—better anticipate and understand these changes? In this chapter, we explore the nature of developmental theories, with a special emphasis on their applications to the developmental changes that take place over the course of an individual’s lifespan.

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## The Nature of Developmental Theories

Each of Elizabeth’s teachers’ approaches reflects a different set of ideas and beliefs about children and their development. Whether they know it or not, most people—teachers, parents, grandparents, students, and even children themselves—are guided by “informal theories” of human development. And while the preceding example focuses on early childhood, informal theories of development are used to understand older children, adolescents, and even adults.

### What Is a Developmental Theory?

As we point out in Chapter 1, *human development* refers to long-term changes and continuities that occur during a person’s lifetime and the patterns of those changes. Theories are useful because they help us organize and make sense of large amounts of sometimes-conflicting information about development. For example, how do we decide whether day care is good for children, and, if so, what type of day care is developmentally best? For that matter, how do we make developmental sense out of different approaches to parenting, family life, or education at various points in childhood and adolescence? In contrast to informal theories, the more formal developmental theories we will discuss in this chapter attempt to provide clear, logical, and systematic frameworks for describing and understanding the events and experiences that make up developmental change and discovering the principles and mechanisms that underlie the process of change.

What qualities should a good theory ideally have? A good theory should:

1. be *internally consistent*, meaning its different parts fit together in a logical way;
2. *provide meaningful explanations* of the actual developmental changes we are interested in, be they changes in children’s thinking with age or the long-range effects of divorce on their social adjustment;

3. be *open to scientific evaluation* so that it can be revised or discarded if new or conflicting evidence appears or if a better theory is proposed;
4. *stimulate new thinking and research*; and finally,
5. *provide guidance* to parents, professionals, and other interested individuals in their day-to-day work with infants, children, and adolescents.

### How Do Developmental Theories Differ?

Although all developmental theories explore the human experience at various points across the lifespan, they also differ in some important ways. In this chapter, we look at how each theory addresses basic questions about human development: To what degree is a given developmental change due to maturation (nature), and to what degree is it due to experience (nurture)? Is development a continuous process or a series of discontinuous stages? Finally, does the individual take an active or a passive role in his or her development? We can use these three questions to identify how a developmental theory is classified. Much like Elizabeth's teachers at the beginning of the chapter had different ways of explaining behaviors, developmental psychologists tend to use different worldviews to understand development. Some theories are *organismic*—focusing on the individual as the source of change. Some theories are *mechanistic*—focusing on the world as the source of change. And some theories are *interactionist*—focusing on how individuals impact their environment, which, in turn, impacts the individual. You can how these different groups of theories address the three developmental questions in Table 2.1.

#### Maturation or Experience?

Theories differ in the importance they assign to nature and nurture as causes of developmental change. *Maturation* refers to developmental changes that seem to be determined largely by biology because they occur in all individuals relatively independently of their particular experiences. Examples of maturational changes include growth in height and weight and increases in the muscle coordination involved in sitting up, walking, and running. Examples of changes due to experience, or *nurture*, include increasing skill in playing baseball, basketball, or tennis, which clearly seems to be due mostly to formal and informal learning. But for many developmental changes, the relative contributions of maturation and experience are less clear. Talking is a good example. To what degree do all children learn to talk regardless of their particular learning experiences? How much does their talking depend on their particular experiences in the family, community, and culture in which they grow up?

#### Continuous or Discontinuous?

Developmental theories also differ about whether developmental change is a *continuous* process, consisting of many small, incremental changes like a ramp, or *discontinuous*,



Many motor skills, such as jumping rope or riding a bike, develop in predictable sequences or stages.

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**TABLE 2.1** How Developmental Theories Are Classified

Classification	Maturation or Experience?	Continuous or Discontinuous?	Active or Passive?
Organismic	Maturation	Discontinuous	Active
Mechanistic	Experience	Continuous	Passive
Interactionist	Both	Continuous	Active

composed of a smaller number of distinct *stages* like steps. Theorists such as Erik Erikson and Jean Piaget assume developmental change occurs in distinct, discontinuous stages. All individuals follow the same sequence, or order. Each successive stage is *qualitatively* unique from all other stages, is increasingly complex, and integrates the developmental changes and accomplishments of earlier stages. These are organismic theories.

Erikson's theory, for example, assumes an infant must first master the crisis of *trust versus mistrust*; that is, she must come to trust her caregiver's ability to meet her needs. Only then can she move on to tackle the crisis that defines the next stage, *autonomy versus shame and doubt*. *Autonomy* refers to a person's capacity to be independent and self-directed in his or her activities. Similarly, mastery of the crisis of *intimacy versus isolation* during early adulthood prepares an individual for the crisis of *generativity versus stagnation* that occurs during middle adulthood. These and other stages of development proposed by Erikson are discussed later in the chapter.

Learning theories, on the other hand, see development as a relatively smooth and continuous process. The development of trust and autonomy or of more sophisticated thinking and problem-solving skills is thought to occur through the numerous small changes that unfold as a child interacts with his environment. These theories focus on *quantitative* change and are mechanistic in nature.

Still other theories view developmental change as a sequence of more rounded, overlapping slopes, rather than as one continuous incline or a series of sharply defined stages, and are considered interactionist theories.

### *Active or Passive?*

Developmental theories also differ in their view of how actively individuals contribute to their own development. For instance, behavioral learning theorists believe developmental change is caused by events in the environment that stimulate individuals to respond, resulting in the learned changes in behavior that make up development. Theorists who are interested in how thinking and problem-solving abilities develop, such as Jean Piaget, propose that such changes depend on the person's active efforts to master new intellectual problems of increasing difficulty. Likewise, Erik Erikson's theory of identity development proposes that an individual's personality and sense of identity are strongly influenced by his or her active efforts to master the psychological and social conflicts of everyday life.

These children making friends is a good example of the active role of an individual in his or her own development.

Source: Monkey Business Images/Shutterstock.com.





## What Do You Think?

One of the three developmental questions asks whether developmental change occurs in stages or is a continuous process. How might different answers to this question affect how parents raise their children? How might they affect how teachers educate their students?

## Psychodynamic Developmental Theories

*Psychodynamic* theorists believe development is an active, dynamic process that is influenced by both a person's inborn, biological drives and his or her conscious and unconscious social and emotional experiences. According to Sigmund Freud, a child's development is thought to occur in a series of stages. At each stage, the child experiences unconscious conflicts that he must resolve to some degree before going on to the next stage. Other influential psychodynamic approaches, such as that of Erik Erikson, place less emphasis on biological drives and unconscious conflict. Erikson focuses more on the development of a sense of identity as a result of important social, emotional, and cultural experiences.

### Freudian Theory

Sigmund Freud (1856–1939) was the originator of *psychoanalysis*, the approach to understanding and treating psychological problems on which psychodynamic theory is based. Much of Freud's formal theory is outdated. However, his ideas continue to influence our understanding of personality development, including such areas as early infant-caregiver attachment, diagnosis and treatment of childhood emotional disorders, adolescent identity formation, and the long-range consequences of divorce.

#### *The Three-Part Structure of Personality*

Freud described each individual's personality as consisting of three hypothetical mental structures: the id, the ego, and the superego.

The **id**, which is present at birth, is unconscious. It impulsively tries to satisfy a person's inborn biological needs and desires by motivating behaviors that maximize pleasure and avoid discomfort with no regard for the realities involved. In this view, the newborn infant is all id, crying for food and comfort but having no idea of how to get them because she cannot distinguish between wishful fantasy and reality.

The **ego** is the largely rational, conscious, problem-solving part of the personality. It is closely related to a person's sense of self. The ego functions according to the *reality principle*, a process by which the infant learns to delay his desire for instant satisfaction and redirect it into more realistic and appropriate ways to meet his needs. This involves a shift of psychological energy from fantasy to the real parents and other caregivers who can in fact meet the infant's needs. Thus, a hungry infant shifts from imagining that the wish for food will satisfy her hunger to a more realistic focus on anticipating the appearance of her parent or other caregiver, who will feed her. An infant's developing ego, or sense of self, is based on her internalized mental images of her relationships with these caregivers.

The **superego** is the moral and ethical component of the personality. It develops at the end of early childhood. The superego includes the child's emerging sense of *conscience*, or right and wrong, as well as the *ego-ideal*, an idealized sense of how he should behave. The superego acts as an internalized, all-knowing parent. It punishes the person for unacceptable sexual or aggressive thoughts, feelings, and actions with guilt and rewards him for fulfillment of parental standards with heightened self-esteem. The superego can sometimes be overly moralistic and unreasonable, but it provides the individual with standards by which to regulate his moral conduct and take pride in his accomplishments.

**id** In Freud's theory, the part of an individual's personality that is present at birth, unconscious, impulsive, and unrealistic, and that attempts to satisfy a person's biological and emotional needs and desires by maximizing pleasure and avoiding pain.

**ego** According to Freud, the rational, realistic part of the personality; coordinates impulses from the id with demands imposed by the superego and by society.

**superego** In Freud's theory, the part of personality that acts as an all-knowing, internalized parent. It has two parts: the conscience, which enforces moral and social conventions by punishing violations with guilt; and the ego-ideal, which provides an idealized, internal set of standards for regulating and evaluating one's thoughts, feelings, and actions.



### Stages of Psychosexual Development

Freud believed development occurs through a series of *psychosexual* stages. Each stage focuses on a different area of the body that is a source of excitation and pleasure. At each stage, developmental changes result from conflicts among the id, ego, and superego. These conflicts can threaten the person's ego, or sense of self. Pressures from the id push the person to act impulsively to achieve immediate pleasure; pressures from the ego encourage her to act more realistically by delaying satisfaction until it can be attained; and pressures from the superego push her to meet standards of moral behavior and achievement that may be overly strict or unrealistically high. Freud's psychosexual stages and the developmental processes that occur are summarized in Table 2.2.

The ego uses defense mechanisms to protect itself from such conflicts. *Defense mechanisms* are unconscious distortions of reality that keep conflicts from the ego's (self's) conscious awareness. One such defense mechanism is *repression*, in which unacceptable feelings and impulses are forced from memory and forgotten. Another is *projection*, in which a person's conflict-producing feelings, such as feelings of aggression, are mistakenly attributed to another person.

According to Freud, unresolved id-ego and superego-ego conflicts can lead to a *fixation*, or a blockage in development. Fixation can also result from parenting that is not appropriately responsive to a child's needs. For example, overindulgence during the oral stage (see Table 2.2) may result in excessive dependence on others later in life. On the other hand, infants who experience severe deprivation and frustration of their needs may later feel they have to exploit or manipulate others to meet their needs. In this view, an individual's personality traits reflect the patterns typical of the stage at which a fixation occurred.

**TABLE 2.2** Freud's Psychosexual Stages and Developmental Processes

Psychosexual Stage	Approximate Age	Description
Oral	Birth–1 year	The mouth is the focus of stimulation and interaction; feeding and weaning are central.
Anal	1–3 years	The anus is the focus of stimulation and interaction; elimination and toilet training are central.
Phallic	3–6 years	The genitals (penis, clitoris, and vagina) are the focus of stimulation; gender role and moral development are central.
Latency	6–12 years	A period of suspended sexual activity; energies shift to physical and intellectual activities.
Genital	12–adulthood	The genitals are the focus of stimulation with the onset of puberty; mature sexual relationships develop.

**Developmental Processes**

Development occurs through a series of psychosexual stages. In each stage, the child focuses on a different area of her body, and how she invests her libido (sexual energy) in relationships with people and things reflects the concerns of her current stage. New areas of unconscious conflict among the id, ego, and superego, the three structures of personality, also occur. Conflicting pressures from the id to impulsively achieve pleasure, from the ego to act realistically by delaying gratification, and from the superego to fulfill moralistic obligations and to achieve idealistic standards all threaten the ego. The ego protects itself by means of unconscious defense mechanisms, which keep these conflicts from awareness by distorting reality.

### Erik Erikson's Identity Crisis: An Autobiographical Perspective

*How do theorists' own life experiences influence their theories of development? Here is what Erik Erikson has written about his own identity crises and how they influenced his developmental theory.*

Erik Erikson was born in 1902 and died in 1994. He grew up in southern Germany with his mother, who was Danish, and her husband, a German pediatrician. Erikson recalls that "all through my earlier childhood, they kept secret from me the fact that my mother had been married previously; and that I was the son of a Dane who had abandoned her before my birth" (E. Erikson, 1975, p. 27).

As Erikson entered puberty and adolescence, identity conflicts intensified. "My stepfather was the only professional man in an intensely Jewish small bourgeois family, while I . . . was blond and blue-eyed, and grew flagrantly tall. Before long, then, I was referred to as a 'goy' [outsider] in my stepfather's temple, while to my schoolmates I was a 'Jew.' . . . Although during World War I, I tried desperately to be a good German chauvinist, [I] soon became a 'Dane' when Denmark remained neutral" (pp. 27, 28).

During this period, Erikson decided he would be an artist and a writer, rejecting his family's more middleclass values and expectations. He spent most of his time traveling, painting, writing, occasionally taking art classes, and teaching art. In looking back at these years, Erikson said that he now considered them an important part of his training (pp. 25, 26).

In fact, it was not until Erikson was almost thirty and moved to Austria that his career as a psychoanalyst and developmental theorist really began. His training in psychoanalysis was conducted by Anna Freud, who accepted him as a student after observing his work with children as a teacher in a small private school. After studying and practicing psychoanalysis in Vienna, Erikson was forced to leave Austria by the rise of Hitler. He emigrated to the United States, where he lived and worked the rest of his life.

Erikson achieved his outstanding accomplishments as a teacher, scholar, and therapist without the benefit of even a college degree, much less any other professional credentials. In the 1930s, Erikson worked as a psychoanalyst with children and debated whether to return to school for a professional degree. Instead, he accepted

a research appointment at Yale Medical School and the Yale Institute of Human Relations, where he worked with an interdisciplinary team of psychologists, psychiatrists, and anthropologists and conducted field studies of the Sioux tribe of Native Americans in South Dakota.

In the 1940s, Erikson moved to California to study the life histories of children living in Berkeley and then the lives of the Yurok Indians. He joined the faculty of the University of California at Berkeley in the early 1950s but was soon fired because of his opposition to the Korean War and his refusal to sign a "loyalty oath," part of the fanatical anticommunist crusade of Senator Joe McCarthy. Erikson was reinstated as politically dependable, but resigned in support of others who were not rehired. Erikson says of this experience, "As I think back on that controversy now, it was a test of our American identity; for when the papers told us foreign-born among the nonsigners to 'go back where we came from,' we suddenly felt quite certain that our apparent disloyalty to the soldiers in Korea was, in fact, quite in line with what they were said to be fighting for. The United States Supreme Court has since confirmed our point of view" (pp. 42–43).

Erikson wrote this about that period: "It would seem almost self-evident now how the concepts of 'identity' and 'identity crisis' emerged from my personal, clinical, and anthropological observations in the thirties and forties. I do not remember when I started to use these terms; they seemed naturally grounded in the experience of emigration, immigration, and Americanization. . . . I will not describe the pathological side of my identity confusion, which included disturbances for which psychoanalysis seemed, indeed, the treatment of choice. . . . No doubt, my best friends will insist that I needed to name this crisis and to see it in everybody else in order to really come to terms with it in myself" (pp. 26, 43).

### What Do You Think?

In what ways did Erikson's life experiences and the time and places in which he lived influence his developmental theory? What aspects of your own experiences and the time and places you have lived are likely to be important in shaping your own ideas about developmental continuity and change?

### Erikson's Psychosocial Theory

Erik Erikson (1902–1994) grew up in Europe. He studied psychoanalysis with Freud's daughter, Anna, who strongly influenced his ideas about personality development. The "Focusing On" feature describes the relationship between Erikson's life and his theory.

In Erikson's view, personality development is a *psychosocial* process, meaning internal psychological factors and external social factors are both very important. Developmental changes occur throughout a person's lifetime and are influenced by three interrelated



For this school-age girl, learning new skills is part of mastering Erikson's developmental crisis of industry versus inferiority, while for her grandfather, sharing his lifelong love of chess is one way of mastering the crisis of ego integrity versus despair.  
 Source: Budimir Jevtic/ Shutterstock.com.

forces: (1) the individual's biological and physical strengths and limitations; (2) the person's unique life circumstances and developmental history, including early family experiences and degree of success in resolving earlier developmental crises; and (3) the particular social, cultural, and historical forces at work during the individual's lifetime (for example, racial prejudice, poverty, rapid technological change, or war).

*Psychosocial Stages of Development*

Erikson proposed that development occurs in a series of eight stages, beginning with infancy and ending with old age. Each stage is named for the particular *psychosocial crisis*, or challenge, that every individual must resolve to be able to move on to the next stage. Successful mastery of the psychosocial crisis at a particular stage results in a personality strength, or *virtue*, that will help the individual meet future developmental challenges (Erikson, 1982; Miller, 2011). Table 2.3 summarizes Erikson's stages and developmental processes.

**Stage 1: Trust versus Mistrust** The earliest basic trust is indicated by the infant's capacity to sleep, eat, and excrete in a comfortable and relaxed way. Parents who reliably ensure daily routines and are responsive to their infant's needs provide the basis for a trusting view of the world. The proper ratio, or balance, between trust and mistrust leads to the development of hope. *Hope* is the enduring belief that one's wishes are attainable. Failure to develop such trust may seriously interfere with a child's sense of security and compromise her ability to master successfully the challenges of the stages that follow.

**TABLE 2.3** Erikson's Psychosocial Stages and Developmental Processes

Psychosocial Stage	Approximate Age	Description (Virtue Attained)
Trust versus mistrust	Birth–1 year	Focus on oral-sensory activity; development of trusting relationships with caregivers and of self-trust (hope)
Autonomy versus shame and doubt	1–3 years	Focus on muscular-anal activity; development of control over bodily functions and activities (will)
Initiative versus guilt	3–6 years	Focus on locomotor-genital activity; testing limits of self-assertion and purposefulness (purpose)
Industry versus inferiority	6–12 years (latency period)	Focus on mastery, competence, and productivity (competence)
Identity versus role confusion	12–19 years (adolescence)	Focus on formation of identity and coherent self-concept (fidelity)
Intimacy versus isolation	19–25 years (early adulthood)	Focus on achievement of an intimate relationship and career direction (love)
Generativity versus stagnation	25–50 years (adulthood)	Focus on fulfillment through creative, productive activity that contributes to future generations (care)
Ego integrity versus despair	50 and older	Focus on belief in integrity of life, including successes and failures (wisdom)
<b>Developmental Processes</b>		
Development of the ego, or sense of identity, occurs through a series of stages, each building on the preceding stages and focused on successfully resolving a new psychosocial crisis between two opposing ego qualities. No stage is fully resolved, and more favorable resolution at an earlier stage facilitates achievement of later stages.		