CHAPTER 1

Introduction

Theories of Social Development



What is the study of social development? It is many things. It is a description of children's social behavior and how it changes as children get older. It is a description of children's ideas about themselves and other people, their relationships with peers and adults, their emotional expressions and displays, and their ability to function in social groups. It traces continuities and discontinuities in children's social behavior, relationships, and ideas over time. It is also an explanation of the processes that lead to changes

in social behavior and to individual differences among children. It includes examination of how other aspects of development—cognitive, perceptual, language, and motor development—underlie children's social behavior.

Researchers in the field of social development investigate the influences of parents and peers, schools and the media, and culture and biology on children's social behavior and ideas. For some scholars, unraveling the mysteries of social

Four-month-old Abby gazes into her mother's eyes. Her mother returns the gaze and smiles broadly. Abby smiles back at her mother and coos. This simple social exchange represents the beginnings of social development. Five-year-old Jason is a bully. He terrorizes the other children in his classroom, takes their toys, hits them, and verbally abuses them. His classmate Aiden is quiet, cooperative, and compliant; he shares his toys and settles disputes peacefully. Not surprisingly, classmates like Aiden better than Jason. These patterns reflect individual differences in social behavior during early childhood. Twelveyear-old Emma loves to spend time with her best friend Meg. They walk to school together, meet at recess, sit next to each other at lunch, play on the same soccer team, confer about homework, and text late into the night. Their close relationship is typical of best friendships in middle childhood. These three hypothetical examples illustrate some of the phenomena of social development in childhood. In this chapter, we discuss the theories that explain these phenomena and the questions that are central to the study of social development.

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et You Didn't Know That . . . Newborns Can Recognize Their Mothers by Smell



Each chapter in this book contains a highlighted section describing something about social behavior or social development that may surprise you. Did you know that . . .

Newborns can recognize their own mothers by smell.

- Even 2-years-olds experience jealousy.
- Aggressive behavior in an 8-year-old can predict criminal behavior at age 30.
- Infants in orphanages have lower levels of the "love" hormone, oxytocin.
- Child abuse can lead to changes in children's brain functioning.
- Having a close friend can make up for being rejected by classmates.
- Adolescent girls who have grown up without a father have a much higher chance of becoming a teen mother than those who grew up with a father.

You will learn about these and other interesting facts about social development as you read this textbook.

development is a goal in itself. It allows them to satisfy their curiosity about why some children become juvenile delinquents and others become model teens. It offers insights into the principles and laws that govern social interaction.

Other scholars have more practical concerns. They gather information about social development to help people make better decisions about children's lives. They give parents information that will help improve their child-rearing strategies. They give teachers information about how to reorganize their classrooms to support children's social needs. They provide information to guide policymakers' decisions about child-care regulations, school policies, and family welfare. They offer information to help health professionals identify and treat children who are showing signs of atypical development. All of these are legitimate goals within the study of social development.

Social Development: A Brief History

The study of children's development is a relatively recent enterprise. In the medieval period, people viewed children as miniature adults and did not even recognize childhood as a distinctive period deserving special attention (Aries, 1962). Children were not valued in the same way or treated with the same care as they are today. Many children died in infancy and early childhood and, if they survived, they were forced to labor in mines and fields. Child labor laws to protect children's health and welfare were not introduced until the 1800s. As people began to recognize children's value and vulnerability, the need to understand their development through scientific study became clear as well.

The scientific study of children's development began with the pioneering work of the evolutionary biologist Charles Darwin. In his work on the development of emotions in his own and other people's children, Darwin (1872) paved the way

for the modern study of emotions—a key element of social development. Following Darwin, psychologist G. Stanley Hall (1904) used questionnaires to document children's activities, feelings, and attitudes. A few years later, John B. Watson (1913) argued that conditioning and learning were the processes by which social and emotional behavior are acquired and modified. His early studies of how infants acquire fear responses through conditioning demonstrated that emotional responses are learnable and that social behavior can be studied scientifically. Around the same time, Sigmund Freud (1905, 1910) offered a more biologically oriented view, claiming that social development was the product of how adults handled children's basic drives, such as the infant's drive to suck. An American psychologist and pediatrician, Arnold Gesell (1928), offered a different view of social development. He argued that social skills, like motor skills, simply unfold over the course of infancy and childhood. Thus, the field began with competing views about social development (Parke & Clarke-Stewart, 2012). In this chapter, we explore the views reflected in both traditional and modern theories of social development (for a detailed review of the recent history of the study of social development, see Collins, 2011).

Critical Questions about Social Development

As scientists studied children's social development, they confronted and debated a number of critical questions. These questions, which we discuss in this section, have framed the study of development and colored different theories of social development.

How Do Biological and Environmental Influences Affect Social Development?

In the early history of developmental psychology, scholars took opposing positions on what was known as the "nature–nurture" issue. Some emphasized the role of nature, that is, heredity and maturation; others emphasized the role of nurture, that is, learning and experience. The former argued that biology is destiny and the course of development is largely predetermined by genetic factors, which guide the natural **maturation** or unfolding of increasingly complex social skills and abilities. Gesell was an early advocate of this view. Opposing this view, scholars such as Watson (1928) placed their emphasis firmly on the environment. They assumed that genetic factors put few restrictions on the ways that environmental events shape the course of children's development and claimed that by properly organizing the environment they could train any infant to become an athlete, an architect, or an attorney.

Today no one supports either of these extreme positions. Modern scholars realize that both biological and environmental factors influence social development—although they may disagree about the relative importance of each. The challenge now is to explore how the two sets of factors interact to produce changes and individual differences in children's social abilities. In recent years, researchers have studied these factors in a number of ways. One group of researchers, for example, showed that children's aggressiveness is a function of both their testosterone level—biology—and their exposure to aggressive interactions—environment (Moffitt et al., 2006). Another researcher showed that children's sociability with

4 Chapter 1 Introduction

peers is rooted in both their early temperamental characteristics—biology—and their early experiences in the family—environment (Rothbart 2011). Yet another eminent developmental scientist, Jay Belsky, has advanced the "differential susceptibility" hypothesis (discussed in more detail in Chapter 3, "Biological Foundations") that certain biologically based factors—including difficult temperament and a subset of molecular-genetic markers—predispose some children to be more reactive to and therefore affected by both negative *and* positive caregiving experiences (Belsky & Pluess, 2009). Today, the question is not which factor, biology or environment, determines development but rather how the expression of a particular inherited biological characteristic is shaped, modified, and directed by a particular set of environmental circumstances.

What Role Do Children Play In Their Own Development?

A second critical question about social development concerns the extent to which children contribute to their own development. Early scholars tended to believe that children were simply passive organisms who were shaped by external forces. Today, most scholars have moved away from this simple view. Some still insist that children are assertive or shy because of the way their parents rear them or that adolescents become juvenile delinquents because of peer pressure. In general, however, developmental scientists currently believe that children are active agents who, to some extent, shape, control, and direct the course of their own development (Kuczynski & Parkin, 2007; Kuczynski et al., 2015). Children, they assert, are curious seekers of information who intentionally try to understand and explore the world about them. They actively seek out particular kinds of information and interactions. In addition, they actively modify the actions of the people they encounter. Over the course of development, children participate in reciprocal interchanges with these other people, interchanges that are best described as transactional (Sameroff, 2009, 2010). For example, children ask their parents for help solving a social problem, their parents offer advice, and, as a result, children's interactions with their parents and peers are modified. Throughout development, children's social behavior is constantly undergoing change as a result of this mutual influence process.

What Is The Appropriate Unit for Studying Social Development?

Psychologists' study of social development has typically focused on the individual child as the unit of analysis. In recent decades, however, psychologists have increasingly recognized that other units also warrant attention. As an outgrowth of the recognition that children have reciprocal interactions with other people, the focus has shifted to the **social dyad**. Researchers now study the nature of social interactions and exchanges between pairs of children or between children and their parents and investigate social relationships between these individuals (Collins & Madsen, 2006). Attention is also given to larger units including social triads, such as mother–father–child or a trio of friends (Collins, 2011). In addition, researchers study the social groups that children form or join outside the family. These groups have their own rules and provide significant contexts for children's social development. Contemporary social development scholars view all of these units—individuals, dyads, triads, and groups—as important for studying social development.



nsights from Extremes: Genie, a "Wild Child"



Few extreme cases have aroused as much public interest and professional scrutiny as the discovery in November 1970 of a 13-year-old girl who had been living in isolation, locked inside her bedroom, since infancy (Rymer, 1994). The house where "Genie," as she became known, lived was completely dark; all blinds were drawn and there were no toys. Her bedroom, at the back of the house, was furnished only with a wire cage and a potty chair. During the day, Genie was strapped to the potty chair and at night she was locked in bed inside the wire cage. No one in the family was allowed to talk to her, and her food was put out hurriedly without speaking. If her father heard her vocalizing, he beat her and barked and growled like a dog to keep her quiet. Genie was discovered by authorities when her mother, who was almost blind and also a victim of abuse by Genie's father, ran away from her husband and took Genie with her.

This was not only a human tragedy but also an opportunity to evaluate the impact of extreme environmental input on children's development. When she was rescued, Genie could

not stand erect; she walked with a "bunny walk," with her hands up in front, like paws. She was incontinent, unsocialized, malnourished, and unable to chew normally. She was eerily silent. She spoke only a few words and short phrases such as "stop it" and "no more." With therapy and training, Genie eventually learned some words. She also learned to smile. Her demeanor changed, and she became sociable with familiar adults. She was fascinated with classical piano music, and researchers speculated that from her isolated bedroom she had been able to hear a neighbor child practicing piano. Genie also learned to express herself through sign language and developed remarkable nonverbal communication skills; she and her caretakers were often approached by strangers who, without being asked, spontaneously gave Genie gifts or possessions. Despite her therapy and experience living with foster parents, Genie was never able to master grammar and had trouble controlling her angry outbursts. She was never able to function independently and, today, in her early 60s, she is living in a sheltered home for adults with disabilities, speaking very little but communicating reasonably well with sign language.

This extreme case suggested that there are critical or sensitive periods early in life, and development is irreparably impaired if children lack sensory and social stimulation from their environments during these periods. The case stimulated research and popular interest in the role of social stimulation for brain functioning and development of communicative and social skills.

Is Development Continuous or Discontinuous?

A fourth question that developmental psychologists have asked is how to characterize the nature of developmental change. Some see development as a continuous process with each change building on earlier experiences in an orderly way. They see development as smooth and gradual, without any abrupt shifts along the path (Figure 1.1a). Others view development as a series of discrete steps and see the organization of behavior as qualitatively different at each new stage or plateau (Figure 1.1b). The concerns of each phase of development and the skills

6 Chapter 1 Introduction

learned in that phase are different from those of every other phase. Jean Piaget and Sigmund Freud both proposed such stage theories of development, suggesting that as children get older, they move through different stages, that at each new stage, they learn new strategies for understanding and acquiring knowledge and for managing interpersonal relationships, and that these new strategies displace earlier ways of dealing with the world. Scientists who endorse a continuous view of development suggest that noticeable changes in behavior are simply part of an ongoing series of smaller shifts.

Recently, some developmental psychologists have suggested that our judgment of continuity or discontinuity depends on the power of the lens we use when we look at changes across ages (Siegler, 2006). If we look from a distance or over a fairly long period of time, marked differences are evident, suggesting that there are distinct developmental stages in social behavior and social relationships. If we look more closely, however, we find that such changes do not happen suddenly. In fact, we find a great deal of variability in social behaviors even at the same point in time: A child may sometimes use a sophisticated and socially appropriate strategy to interact with a companion and, at other times, rely on a relatively primitive tactic. For example, in the process of learning social skills, a toddler may take turns and ask to play with a peer's toy on one occasion but the next day may grab the toy without asking or waiting. Only after many encounters with peers and toys does the toddler come to use turn taking and requests consistently. When social interactions are examined using a more powerful lens in this way, a very different picture of development appears: one of gradual shifts and changes as children slowly learn new strategies and gradually adopt the best and most advanced ones (Figure 1.1c). Thus, over time, change proceeds in a less linear and a less step-like fashion than continuous or stage theories suggest.

Today, most social development scholars recognize the value of both continuous and discontinuous views; they see development as basically continuous but interspersed with transitional periods in which changes are relatively abrupt or where growth is accelerated relative to earlier periods. These transitional periods may be the result of physical changes, such as learning to walk, which offers infants new opportunities for interaction (Karasik et al., 2011), or the onset of puberty, which changes

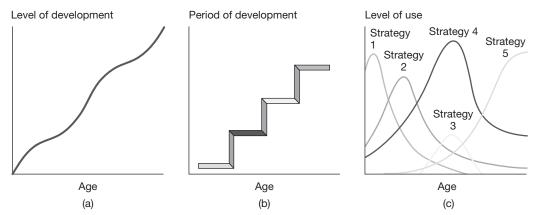


FIGURE 1.1 Continuity and discontinuity in development (a) The continuous view looks at development as a gradual series of shifts in skills and behavior with no abrupt changes.(b) The discontinuous view suggests that step-like changes make each stage qualitatively different from the one that preceded it.(c) The third view suggests that different strategies ebb and flow with increasing age, and the most successful strategies gradually predominate.

the way children think about themselves (Caspi & Shiner, 2006; Ge et al., 2001). Other transitions may be the result of cultural changes, such as entry into junior high school, which brings children into larger social groups and a more complex social organization. Some view these transitional periods of reorganization as opportunities for intervention or changes in developmental trajectories.

Is Social Behavior the Result of the Situation or the Child?

Another critical question about social development is whether children's behavior is the same in different situations: at school, at home, on the playground, and in the street. Do children behave differently in different settings, or do their individual characteristics lead them to behave similarly across situations? Can we describe certain children as honest, dependable, and helpful and expect them to exhibit these qualities at all times? How do these traits manifest themselves in different situations: during a difficult test, in a confrontation with an angry parent, in a competitive game, or with a friend in need? Developmental scientists differ in the importance they assign to "person factors" versus "situational factors." Many resolve the dilemma by stressing the dual contributions of both personality and situational factors. They point out that children seek out situations in which they can display their personalities. Aggressive children, for example, are more likely to join a gang or enroll in a karate class than to opt for the church choir or a stamp collectors' club (Bullock & Merrill, 1980), but in settings that don't allow or promote aggressive behavior, these same children may be friendly, reasonable, and cooperative. As we discuss in Chapter 3, "Biological Foundations," genetic predispositions lead children to nichepick situations that are compatible with their genetic makeup (Scarr & McCartney, 1983). At the same time, children's selection of these experiences may strengthen their predispositions—for example, their tendency to behave aggressively—as they get older.

Is Social Development Universal Across Cultures?

Children who grow up on a farm in China, in a kibbutz in Israel, in a village in Peru, or in a suburb in the United States have very different experiences. Even within the United States, racial and ethnic groups present children with diverse experiences (Buriel, 2011; Parke & Buriel, 2006). Another critical question about social development is how much effect these different experiences have on children's social behavior. Psychologists themselves differ as to how much importance they ascribe to culture. Some argue that culture-free laws of development apply to all children in all cultures. For example, children in every culture acquire the basic foundations of social life, such as learning to recognize other people's emotional expressions and to communicate their wishes and desires to others through language. Other psychologists stress the fact that the cultural settings in which children grow up play a major role in their development. In some cultures, for example, older siblings care for children, whereas in other cultures professional caregivers care for them in group settings. It is unlikely that children who grow up in nuclear family arrangements would develop social attitudes and behaviors identical to those of children with these very different child-rearing experiences. Yet other psychologists suggest that some aspects of social development are universal and other aspects are culturally specific. For example, although all children develop social understanding, the rates



Cultural Context: Parenting Advice Around the Globe

In North America and Western Europe, millions of parenting manuals are sold every year to mothers and fathers eager to learn how to become good par-

ents and raise their children properly. The nine editions of Dr. Benjamin Spock's Baby and Child Care have sold tens of millions of copies since the book was first published in 1946; only the Bible had sold more copies in the 20th century. But would Dr. Spock's book travel well and serve as a useful guide for parents in other cultures? Probably not. Even though Westerners think that their way of caring for infants is obvious, correct, and natural—a simple matter of common sense—it turns out that what people accept as common sense in one society may be considered odd, exotic, or even barbaric in another (DeLoache & Gottlieb, 2000). Different cultures make different assumptions about appropriate or desirable characteristics of children and appropriate or desirable behaviors of parents.



Woman from a Fulani tribe with her child.

The characteristics that our culture values stress the uniqueness and independence of individuals. Based on our belief in free will and our capacity to shape our own destiny, we

value autonomy, assertiveness, ambition, and even competitiveness in children. In our culture, parents have the major responsibility for producing children with these desirable characteristics. Although all cultures aim to protect and keep their children safe, members of our culture have invented infant car seats, baby monitors, and nanny cams to protect children. We believe in the power of technology and innovation to make things better, including our children and ourselves. Our parenting advice manuals reflect these beliefs.

Other cultures do not share our assumptions about what child traits are desirable, who should be responsible for child rearing, or even the nature of the threats that children face. In many other cultures, our common sense makes no sense! Instead of a focus on self-confidence and self-aggrandizement, many non-Western cultures value interdependence, modesty, and self-effacement. Among the Fulani (see photo), one of the largest groups in West Africa, who live at the edge of the Sahara desert, the most valued traits include soemteende, "modesty and reserve"; munyal, "patience and fortitude"; and hakkilo, "care and forethought" (Johnson, 2000). Children in Bali, one of the Indonesian islands, are taught not to display positive emotions such as joy when they receive a good grade at school or negative emotions such as anger in public (Diener, 2000).

Many non-Western societies also value shared responsibility for child rearing, and members of the wider community participate in child care. In Beng villages in the Ivory Coast (located in West Africa), extended families live together, and all family members as well as villagers from other households share in child care. In fact, members of other households are expected to visit a newborn within hours of its birth (Gottlieb, 2000). An extreme example of shared child-rearing responsibility is practiced in Ifaluk, a Micronesian island in the North Pacific Ocean. There, more than a third of children are adopted by a second family. These adopted children share the resources of both their biological and their adoptive parents.

They sleep in either family's house and receive shelter, protection, and security from both sets of parents. In effect, adopted children have two family networks (Le, 2000).

In some cultures, social ties are formed not just with the living but also with the dead. Among the Baganda, an East African group, infants are viewed as reincarnated ancestors, and one of the cultural goals is to maintain ties between the child and the ancestor's spirit. Children's names are selected according to which ancestor's name produces a smile from the baby (DeLoache & Gottlieb, 2000). Protection of children is culturally determined as well, often based on religious beliefs that can include witches or evil spirits that could harm children. Among the Fulani, mothers may ward off evil spirits by rolling their infants in cow dung to make them less desirable and not worth capturing by the evil spirit, or they might

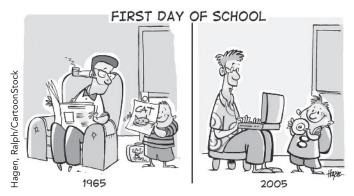
place a small knife on the pillow while a baby sleeps to ward off the spirit (Johnson, 2000).

If Western child-rearing experts want to sell their parenting books to mothers in other cultures, they will have to do some serious rewriting. The assumption that our way of raising children is the right way or the only way is clearly wrong. Dr. Spock's advice to parents about raising children would not be very adaptive for children living among the Fulani, the Balinese, the Beng, or the Ifauk. Parents in these cultures need their own parenting manuals written by someone who grew up in their culture and knows the skills that children need to grow into productive and well-adjusted members of their culture. Of course, parents in these cultures don't feel the need for parenting manuals the way Western parents do. They base their practices on tradition and observation, not on reading books.

at which social milestones are reached vary across cultures. Today most developmental psychologists take this third position, recognizing universal aspects of development as well as the importance of considering cultural contexts (Fung, 2011; Rogoff, 2003; Sera, Maratsos, & Carlson, 2016).

How Does Social Development Vary Across Historical Eras?

Cultures not only differ from one another but also differ over time. Another critical question, therefore, is how these changes affect children's social development. In our own society, dramatic changes in the structure of families and the ways people communicate have occurred over the past decades. Rates of divorce and remarriage have increased, childbearing has been delayed, family sizes have decreased, the likelihood of mothers working outside the home has increased, children's exposure to peers in child care has increased, and computers and smart phones have increasingly been used to communicate with people we know and people we have never met. The question is whether children develop in the same ways regardless of such shifts in the culture that surrounds them. Theorists now appreciate that historical changes such as these play a part in shaping children's development (Elder & Shanahan, 2006; Elder & George, 2015). The social lives of children and their families are also affected by specific historic events: the Vietnam War in the 1960s, the conflict between Catholics and Protestants in Northern Ireland in the late 1960s, the farm crisis in the American Midwest in the 1980s, the fall of the Berlin Wall in Germany in 1989, the terrorist tragedy on 9/11 in 2001, the tsunami in Indonesia in 2004, Hurricane Katrina in 2005, and the global economic downturn in 2008. Both distinct historical events and more gradual shifts in living arrangements and



Even cartoonists appreciate the historical changes that affect childhood.

societal values leave their mark on children's social and emotional development. It is important to keep both types of changes in mind when comparing children's behavior across generations.

Is Social Development Related to Other Developmental Domains?

Another question that is part of the study of social development concerns how changes in children's social behavior are related to changes in other domains of development such as cognition, language, emotion, and motor development. More than a century ago, Darwin (1872) suggested that emotions play a central role in regulating children's social interactions. Today psychologists often examine the role of emotions in children's social development (Denham et al., 2012). They also often study the role of cognitive development. Children's cognitive capacity to correctly interpret another person's intentions, for example, is a critical component of social interaction, affecting the child's reactions to the other person's actions (Dodge, Coie, et al., 2006). Development in the language domain plays a key role in social development by providing an essential means of communication (Bloom & Tinker, 2001). Even motor development is important for social development; for example, crawling and walking allow infants to initiate or maintain physical proximity with other people; pointing and gesturing give them a way to engage in social exchanges before they can speak (Saarni et al., 2006). As these examples illustrate, social development is best understood by studying it in the context of other domains of development because advances in other developmental areas facilitate changes in social development. It is also important to recognize the reciprocal nature of this cross-domain influence: Shifts in competence in the social domain affect children's progress in other domains as well as the reverse (Gauvain, 2001a, 2001b; Bell & Calkins, 2012).

How Important Are Mothers for Children's Social Development?

It was once thought that mothers were the most important influence on children's social development, that they were necessary for children to develop normally, and that no one else mattered much. Commentators and theorists from Sigmund



Research Up Close: Children of the Great Depression

Glen Elder (1974) made use of the stock market crash in 1929 and the Great Depression that followed to study how an historical time period can affect

children's social development. He found that some participants in a longitudinal research project in California were just entering school when the economy collapsed; others were teenagers. Some of their parents suffered or lost their jobs in the Depression; others remained relatively well off. These natural variations enabled the researcher to compare families who were severely deprived with those who were not and to investigate how family differences affected children at different ages.

In the economically deprived families, dramatic changes occurred in family roles and relationships. The division of labor and power within the family shifted. As fathers' jobs disappeared and income dropped, mothers entered the labor market or took in boarders. As a result, mothers' power increased and fathers' power, prestige, and emotional significance decreased. The rates of divorce, separation, and desertion rose, especially among couples whose relationship was shaky even before the onset of bad economic times. Parent-child relationships changed in response to economic hardship, too; fathers especially became more punitive and less supportive of their children.

Roles also changed for children. Girls were required to do more household work, and more older boys took outside jobs. Boys tended to

move away from the family, becoming more peer oriented. They also often became more ill tempered and angry. In a family who had lost nearly two-thirds of their income and had just moved into cramped quarters of a relative, the mother reported that her son was:

"tense, quick to anger and ashamed to bring friends home even though the boy was well liked by his classmates and achieved some prominence in student activities."

Both boys and girls were moodier, more easily slighted, and less calm. Because younger children depended more on their parents and thus were exposed to the altered situation at home for longer periods of time, the effects of the Depression were greater for children who were young when catastrophe struck. Many of the effects on children were long lasting. When they became adults, their values, work patterns, and marriages bore the marks of their earlier experiences. Men who were forced to enter the job market as teenagers preferred secure but modest jobs rather than riskier higher-status positions. They were also less satisfied with their work and income. Men and women who had experienced adjustment problems in response to the Depression had less successful marriages. Women who were prone to temper outbursts as children in the Depression became ill-tempered mothers. Thus, the Great Depression affected social roles, emotions, and behavior across three generations.

Freud forward championed mothers as the leading players in children's social worlds, and some went so far as to suggest that they were the only key players. Although no one today would deny that mothers are important and often even the most important people for children's early social development, psychologists now appreciate that other people are important too. Fathers, siblings, grandparents, and other relatives are all recognized as influencing children's social development (Dunn, 2002, 2005, 2015; Lamb, 2010; Parke, 2013). Teachers, child-care providers, coaches, and religious leaders may also contribute (Clarke-Stewart & Allhusen, 2005; Lerner et al., 2011). We now know that children's social development is embedded

in a social matrix in which many individuals guide and support children's progress toward healthy social relationships and social skills. As social historian Stephanie Coontz (1992) noted,

"Children do best in societies where childrearing is considered too important to be left entirely to parents."

Is There a Single Pathway of Social Development?

Another critical question for social development is whether children all follow the same general path. Early observers of social development, such as Gesell, tended to focus on normative steps that all children take on the road to social maturity. Today most theorists recognize that there are varied routes of development. No single pathway to social success or failure exists. Children who start out at the same place early in development may end up in totally different places later on. This divergence of developmental paths, in which two individuals start out similarly and end up at very different points, is called **multifinality** (Cicchetti & Rogosch, 1996) (see photos below). It suggests that continuing patterns of transactions between children and their families affect the children's development. Consider this example (Cummings et al., 2000, p. 39):

Robin and Staci both had secure relationships with their parents and were functioning well as toddlers. But then Staci's mother and father lost their jobs, and marital problems developed. Her parents became less responsive to Staci's needs and less attentive to her increasingly disruptive behavior. Robin's parents, in contrast, received promotions at work and had a happy and rewarding marriage. They remained warm and responsive and managed family matters constructively. When the children were assessed at age 5, Robin was still secure with both her parents and above average in social competence. Staci was insecure and scored in the clinical range on a measure of adjustment problems.

(Cummings, E. M., Davies, P. T., & Campbell, S. B. (2000). Developmental psychopathology and family process. New York: Guilford Press)

Other children, by contrast, may begin at different places but end up with similar developmental outcomes. This pattern where children follow very different paths to reach the same developmental end point is referred to as **equifinality**. Here is an example (Cummings et al., 2000, p. 40):

Ann and Amy grew up in very different family circumstances. Ann had an affluent family. Her parents enjoyed an intact marriage and managed child rearing well. Amy lived with her father, who had experienced an acrimonious divorce. At age 6, Ann was well-adjusted; Amy was depressed and withdrawn. However, over the next few years, Amy was able to take advantage of her social and athletic skills to develop good social relations with classmates, and her divorced parents learned ways to interact more amicably. When the children were 10 years old, Ann, whose family circumstances had continued to be supportive and positive, was still a well-adjusted girl, but Amy was also well adjusted and above average in social competence.

(Cummings, E. M., Davies, P. T., & Campbell, S. B. (2000). Developmental psychopathology and family process. New York: Guilford Press)

These two examples make it clear that children do not follow a single path in developing their social skills.

Individual children also respond to their life circumstances in very different ways. Some who experience adverse circumstances suffer permanent developmental disruptions or delays. Others show sleeper effects: They seem to cope well initially but exhibit problems later in development. Still others exhibit resilience under the most difficult of circumstances, and some not only are able to cope with risk but actually seem to thrive on it. When they confront new risks later in life, these children are able to adapt to challenges better than children who have experienced little or no risk; they have been inoculated by their earlier experiences and learned from them (Egeland et al., 1993; Luthar & Barkin, 2012; Masten & Tellegen, 2012).



Bourguard/Tsuni/USA/Alamy Live News lash News and Pictures/Newscom Michel

Illustrating the concept of multifinality are sisters Alison and Mariah Carey. After their parents divorced, Alison went to live with her father and became a drug addict, twice arrested for prostitution. Mariah lived with her mother, had little contact with her father, and was named best-selling female pop artist of the millennium at the 2000 World Music Awards.

What Influences How We Judge Children's **Social Behavior?**

Just as children's social outcomes differ, the ways adults judge and label their social behaviors differ. Behaviors such as aggression, affection, and altruism are difficult to define. They are not like height and weight, measurable with a yardstick or on a bathroom scale. So what influences people's judgments of social behaviors? This issue is of interest because how we judge or label someone's behavior affects how we respond to it. For example, labeling a behavior "aggressive" is more likely to lead to a negative response than labeling it "assertive."

Three sets of factors—characteristics of the child, the adult, and the context can subtly influence social judgments and the labeling of social behaviors. We are more likely to judge or label a behavior negatively if it occurs in boys, in children who have been temperamentally difficult as infants, in unattractive children, in children with a history of other forms of deviance, and in children from lower-status families (Cummings et al., 2000; Moeller, 2001; Putnam et al., 2002). We are also more likely to judge a child's behavior negatively if we ourselves are depressed or abusive (Cicchetti & Toth, 2015; Gotlib & Colich, 2014). Finally, we are more likely to judge a child's behavior negatively if it occurs in a stricter and more demanding context (e.g., in a classroom rather than a park). Negative labeling not only affects our behavior, it can also lead children to detrimental self-labeling and expose them to additional risks that push them toward more negative behavior.

Do Developmental Psychologists "Own" Social **Development?**

Developmental psychologists are the scientists who most commonly study children's social development. But are developmental psychologists the only ones who study social development? The simple answer is no. Scholars in other fields including pediatrics, psychiatry, philosophy, demography, anthropology, economics, sociology, law, history, and genetics have also contributed to our understanding of children's social development. Pediatricians have advanced our knowledge of the best ways to evaluate, identify, and understand early social and cognitive capacities of young infants and the implications of early experience for later development (Ellis & Boyce, 2011; Shonkoff, 2012). Clinical psychologists and psychiatrists have focused attention on abnormal social development, such as autism and conduct disorders (Cicchetti & Toth, 2015; Rutter, 2011). Anthropologists have documented crosscultural variations in children's social lives (Weisner, 2008). Demographers have documented changes in the ethnic and racial composition of families in our own and other societies (Hernandez, 2012). Economists have addressed the effects of poverty on children and families (Duncan, et al., 2017). Sociologists have provided a better understanding of how social class and social mobility alter children's social outcomes (Lareau, 2011). Historians and philosophers have demonstrated that historical eras shape children's social attitudes, aspirations, and actions (Matthews, 2010; Mintz, 2004). Legal scholars have informed the study of moral behavior and provided guidelines for social policy (Wald, 2013). Geneticists have signaled the importance of the interplay between genetics and environment and have identified genes and clusters of genes that control children's social behavior (Gregory et al., 2011; Plomin et al., 2012)—and even more recently have ushered into developmental psychology the science of epigenetics—the study of mechanisms by which genetic expression is modified by experience (Lickliter, 2017). In the final analysis, children and their social development are too important to be left in the hands of a single discipline. By combining diverse disciplinary perspectives and encouraging scholars from different disciplines to work together on common problems, we are most likely to figure out the complexities of children's social development (Sameroff, 2009, 2010).

Is Social Development Focused on Only Basic Research or on Applied and Policy Relevant Concerns as Well?

Clearly the search for the fundamental principles and processes that help us explain social development is a central goal of a science of children's social development. However, applied research into important social problems such as delinquency, child care, or adoption are of interest as well and, in turn, can inform our basic research questions. The effects of the rise in childcare by caregivers outside the family on infant and child attachment relationships with their parents and others can provide an opportunity to explore issues about the attachment process such as the range of agents of attachment to whom a child can develop a close relationship. Studies of adoption can inform us about the relative importance of genetic ties and social experience with a nonbiologically related caregiver on parent–infant relationships. Finally, research—basic and applied—can inform social policies that alter children's lives such as child welfare programs or early education opportunities such as Head Start. Clearly, basic, applied, and policy research mutually inform each other.

Theoretical Perspectives on Social Development

Theories about how children grow and mature play a central part in the scientific study of children's social development. Theories serve two main functions.

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Theoretical Perspectives' Positions on Some Critical Questions

Theorist/ Theory	Question 1: Biology (B) versus Environ- ment (E)	Question 4: Continuity (C) versus Discontinuity (D)	Question 5: Situation (S) versus Individual (I)	Question 6: Universal (U) versus Cultural (C)
Freud	B + E	D	I	C + U
Erikson	E	D	I	C + U
Learning	E	C	S	U
Cognitive social learning	E	С	S+I	U
Social information processing	E	С	S + I	U
Piaget	$\mathbf{B} \times \mathbf{E}$	D	I	U
Vygotsky	E	C	S	C
Ecological	E	С	S	С
Ethological	B + E	D	S	U
Evolutionary	B + E		S	U
Behavior genetics	$\begin{array}{c} B+E \\ B\times E \end{array}$		I + S	U
Life span	B + E	С	S + I	С

First, they help organize and integrate existing information into coherent and interesting accounts of children's development. Second, they lead to testable and, importantly, falsifiable hypotheses and predictions about children's behavior. Although no theory (yet) accounts for all aspects of social development, some grand theories from the past, such as Freud's psychodynamic theory, Piaget's cognitive structural theory, and Watson's theory of learning, were attempts to explain development in a general way. In contrast, many current theories are focused on a single aspect or domain of development. These theories do not assume that a common set of processes applies across domains; different processes may operate in different areas. Theories vary in their focus and their position on the critical questions we have just discussed. It may be helpful as you read this section to refer to Table 1.1, which provides an overview of how theories are related to some of these critical questions.

Psychodynamic Perspective

Sigmund Freud initiated a revolution in the way we think about development. His views on the critical roles played by instinctual urges and by events in the early years of childhood were radical in the early 1900s and had an enormous influence on psychological and psychiatric thinking. In this section, we discuss both Freudian theory and the developmental theory of Erik Erikson, who accepted many of Freud's basic ideas but expanded them to include the full life span from childhood to old age.

Freud's theory According to Freud's psychodynamic theory of development, psychological growth is governed by unconscious biologically based drives and instincts, such as sex, aggression, and hunger, and is shaped by encounters with the environment, especially other family members. The developing personality consists of three interrelated parts: the id, the ego, and the superego. The infant is largely under the control of the instinctual id, which operates on the *pleasure principle* and tries to maximize pleasure and satisfy needs immediately. As the infant develops, the rational ego emerges and attempts to gratify needs through appropriate, socially constructive behavior. The superego appears when the child *internalizes*—that is, accepts and absorbs—parental or societal morals, values, and roles and develops a *conscience*, or ability to apply moral values to his or her own acts.

To Freud, development was a discontinuous process, organized in five discrete stages (see Table 1.2). In the *oral* stage, infants are preoccupied with activities such as eating, sucking, and biting and with objects, such as food, that can be put in the mouth. Freud assumed that infants derive great enjoyment and satisfaction from these oral behaviors. In the second or sometimes third year, priorities change: In this anal stage, children are forced to learn to postpone the pleasure of expelling feces, as parents struggle with the task of toilet training. From the end of the anal stage until the fifth or sixth year, children are in what Freud called the *phallic* stage: Their sexual curiosity is aroused, and their preoccupation with their own sexual anatomy and the pleasures of genital stimulation alert them to the differences in sexual anatomy of the sexes. During this period, boys become enmeshed in the **Oedipus** complex, in which they are attracted to their mother and feel themselves to be jealous rivals of their father but also fear that the father will punish them by cutting off their genitals. The Oedipus complex resolves when boys give up their sexual feelings for their mother and identify with their father. In the **Electra complex**, a term coined by Carl Jung, girls blame their mother for their own lack of a penis and focus their sexual feelings on their father. When they finally realize that they cannot possess their father as a mate, girls transfer their feelings to other males. They relinquish their resentment of their mother and instead begin to identify with her.

These dramatic events are followed by the *latency* period, during which, Freud believed, sexual drives are temporarily submerged. In this period, which lasts from about 6 years of age to puberty, children avoid relationships with opposite-sex peers and become intensely involved with peers of the same sex. This turning from the family to the peer group is associated with the acquisition of the social skills necessary to function effectively in the world. In the final stage of Freud's theory, the *genital* period, sexual desires reemerge, but this time they are more appropriately directed toward peers. Once again, biological change—in this case, puberty—plays a significant role in defining the focus of development.

According to Freud, the way children negotiate these stages has a profound effect on their later behavior and personality. For example, failure to satisfy needs for oral stimulation in infancy causes adults to be more likely to smoke, chew gum, talk, and kiss a lot. Children who are toilet trained early and strictly are likely to become "anal" adults who are more likely to demand neatness, cleanliness, and orderliness in their rooms and their partners. Research has not provided support for most of Freud's specific theoretical propositions, but the general view that events in infancy and childhood have a formative impact on later development remains a central belief in developmental psychology.

Erikson's theory Erik Erikson accepted many of Freud's general principles, but he gave more emphasis to the effects of the social environment on development.

TABLE 1.2

Freud's and Erikson's Developmental Stages

Age Period		Stage of Deve	lopment	
(years)		Freud		Erikson
0–1	Oral:	Focus on eating and taking things into the mouth	Infancy:	Task: To develop basic trust in oneself and others Risk: Mistrust of others and lack of self-confidence
1–3	Anal:	Emphasis on toilet training; first experience with discipline and authority	Early childhood:	Task: To learn self-control and establish autonomy Risk: Shame and doubt about one's own capabilities
3–6	Phallic:	Increase in sexual urges arouses curiosity and alerts children to gender differ- ences; period critical to formation of gender identity	Play age:	Task: To develop initiative in mastering environment Risk: Feelings of guilt over aggressiveness and daring
6–12	Latency:	Sexual urges repressed; emphasis on education and the beginnings of concern for others	School age:	Task: To develop industry Risk: Feelings of inferiority over real or imagined failure to master tasks
12–20	Genital:	With puberty, sexual desires reemerge and adolescents and adults express these urges in romantic relationships with peers, possibly for reproduction.	Adolescence:	Task: To achieve a sense of identity Risk: Role confusion over who and what individual wants to be
20–30			Young adult- hood:	Task: To achieve intimacy with others Risk: Shaky identity may lead to avoidance of others and isolation
30–65			Adulthood:	Task: To express oneself through generativity Risk: Inability to create children, ideas, or products may lead to stagnation
65+			Mature age:	Task: To achieve a sense of integrity Risk: Doubts and unfulfilled desires may lead to despair

His **psychosocial theory**, like Freud's psychosexual theory, was based on the belief that development is discontinuous and proceeds through a series of stages. However, Erikson extended his stages through adulthood (see Table 1.2). For every stage, he specified the personal and social tasks that an individual must accomplish as well as the risks he or she would confront by failing to accomplish the tasks of that particular stage (Erikson, 1950, 1959, 1980).

In Erikson's first stage, the main task is acquiring a sense of basic trust. By learning to trust their parents or caretakers, infants learn to trust their environments and themselves. If they find others untrustworthy, they develop mistrust of both

themselves and the world. In the second stage, children in early childhood must learn self-control and develop autonomy; they develop shame and self-doubt if they remain worried about their continuing dependency and their inability to live up to adult expectations. During the third stage, the *play age*, between about 3 and 6 years, children struggle to develop initiative and to master their environment, but at the same time they often feel guilty if they are too aggressive, too daring. Between about 6 and 12 years, during the school age, children try to develop a sense of industry, largely by succeeding at school. This is also a period of constant social comparison in which children evaluate their skills against those of their peers. Real or imagined failure at either academic or social tasks may bring feelings of inferiority.

In the fifth stage, adolescents' main focus is the search for a stable definition of the self—that is, for a self-identity—and the danger is role confusion if they cannot determine who or what they want to be. In the next stage, young adulthood, the task is to achieve intimacy with others and, in particular, a stable intimate and sexual relationship. Problems in earlier stages, such as a shaky sense of identity, may lead to avoidance of relations with others and thus to isolation. The task that confronts the adult in middle age is to create something—children, ideas, or products. If not given expression, this quality of **generativity** can deteriorate into stagnation. In Erikson's last stage, ego integrity is the older adult's goal. When reflection on one's past accomplishments and failures leads to doubt and regret, despair may be the result.

Psychodynamic perspective: An evaluation Freud's and Erikson's developmental theories helped shape many of the concerns underlying the modern study of social development, including the effect of early experience on later behavior, the influence of the family on social behavior, and the impact of social interaction on development. Freud and Erikson identified as important many current topics, including aggression, morality, gender roles, attachment, and identity. In Chapter 4, "Attachment," you will see that Freud's focus on the early mother-infant relationship continues to be influential. He also suggested that gender roles are shaped in part by biological factors as well as by the kinds of relationships we develop with our parents, as we discuss in Chapter 10, "Sex and Gender." Freud was an early proponent of aggression as a basic biological drive, a view that continues in current discussions of the foundations of aggression covered in Chapter 12, "Aggression." Although Freud was unable to measure unconscious thoughts and motives, scientists today have confirmed that these underlie prejudice and stereotyping as we discuss in Chapter 6, "Self and Other." Erikson's influence on our contemporary theorizing is evident too. For example, he is credited with alerting us to the importance of identity in development as you will read in Chapter 6, "Self and Other." Just as important was his recognition that development is a lifelong process, which continues to resonate in the present era in our discussions of the importance of timing of events in adult lives such as job loss, divorce, and childbirth in Chapter 7, "Family" and Chapter 13, "Policy."

Many problems plague this theoretical perspective, however. First, the central claims of Freud's theory are difficult to test empirically. Second, his theory was based on information gathered via retrospective methods from adults undergoing therapy rather than children behaving socially. Third, Freud's methods of collecting information, such as free association, recollections of childhood experiences, and reports of adult dreams, were potentially biased: Freud selectively focused on certain childhood experiences and the patients themselves may have forgotten or distorted their earlier childhood experiences, a common problem with retrospective (versus prospective) data gathering methods (see Chapter 2 on "Research Methods"). Finally, the focus on childhood sexuality was both too narrow and too



nto Adulthood: Fatherhood and Generativity

Erikson argued that the main psychosocial task of middle adulthood is to attain a favorable balance between generativity and self-absorption. By

generativity, he meant any creative activity that contributes to the positive advancement and encouragement of future generations. It includes efforts as diverse as producing new ideas, new works of art or literature, and new products, nurturing the growth of other individuals, and shepherding the development of a broader community. Adults can express their generativity by becoming parents or mentors. John Snarey (1993) identified three types of generativity in which men can participate: first, biological generativity, when they experience the birth of their biological children; second, parental generativity, when they become involved in rearing their children; third, societal generativity, when they care for younger adults, serving as a mentor, providing leadership, and contributing to generational continuity. Examples of this last type of generativity include serving as a master for an apprentice, coaching an athletic team, founding a neighborhood improvement committee, serving on a board of a community agency, managing employees, and advising or supervising students.

Snarey (1993) examined generativity in 240 men followed from adolescence (age 14) to midlife (age 47). He found that the men who became fathers and thus experienced biological generativity were more societally

generative at midlife than the men who remained childless. The men who experienced more parental generativity by being actively involved in nurturing their children's social-emotional development were more likely than less-involved fathers to engage in generative activities outside the family. These associations between types of generativity were not due to the men's incomes, educations, or IQs. They were evidence of an underlying attitude. As one son, describing his highly involved father's attitude toward the wider community, put it:

"My father always takes on other people's problems. He has a big heart."

More generative men also experienced social advantages. Parentally generative fathers had better marriages and experienced more occupational mobility. Perhaps their social-emotional development was promoted by learning to meet the demands of parenting; a father cannot be self-absorbed and preoccupied; he must respond to the needs of his children. This experience would pave the way for the man to share his time and talents to help others in the wider community. In Erikson's terms, the experience of parenting reduces a focus on the self and stimulates generative actions on behalf of others. These generative men followed Erikson's Golden Rule (Erikson, 1980, p. 36): "Do unto others what will advance the growth of others even as it advances your own."

exaggerated to provide a solid base for a theory of development. Moreover, the views were biased in that they implied the superiority of men (e.g., the view that girls were upset because they did not have a penis); however, this perspective regarding men and women did reflect common views at the time. Although Erikson did study real children, his work suffered from many of the same methodological problems as Freud's. Erikson's observations of children's play, for example, are open to alternative interpretations, and his conclusions were not easily verified. His limited specification of the mechanisms that account for development from one stage to another is another weakness. In spite of these limitations, the psychodynamic perspective casts a long and influential shadow over the field of social development.

Traditional Learning Theory Perspective

Learning theories offer a quite different perspective on development. In this section, we explore several learning theories that have been used to explain social development: classical conditioning, operant conditioning, and drive-reduction theory.

Classical and operant conditioning The conditioning approach to development is best exemplified by the work of John Watson, Ivan Pavlov, and B. F. Skinner. According to these theorists, the same principles of learning shape development throughout childhood and, indeed, across the entire life span; development is a continuous process, not occurring in stages; and children play a relatively passive role, directed by events in the environment.

A good example of **classical conditioning** is Pavlov's famous experiment demonstrating that a dog learns to salivate at the sound of a bell if that sound is always associated with the presentation of food (Pavlov, 1927): After repeated pairing of bell and food, the dog salivates at the sound of the bell alone. Watson used classical conditioning to manipulate children's behaviors and emotions. Most famously, he conditioned an 11-month-old infant, Little Albert, to fear furry animals by repeatedly showing the baby, who was easily frightened by loud noises, a white rat and simultaneously making a loud noise (Beck, Levinson, & Irons, 2009). Extrapolating from his work, Watson boasted (1926, p. 10):

Give me a dozen healthy infants, well-formed, and my own specific world to bring them up in and I'll guarantee to take any one at random and train him to become any type of specialist I might select—doctor, lawyer, artist, merchant-chief and, yes, even beggarman and thief, regardless of his talents, penchants, tendencies, abilities, vocations and race of his ancestors.

(Watson, J. B. (1926). What the nursery has to say about instincts. In C. Murcheson (Ed.), Psychologies of 1925 (pp. 1–35). Reprinted by permission of Taylor & Francis Ltd., http://www.informaworld.com)

Operant conditioning occurs when a behavior is systematically followed by a reward or punishment. Following a child's behavior by positive reinforcement in the form of a friendly smile, praise, or a special treat increases the likelihood that the child will exhibit the behavior again. In contrast, punishment in the form of a frown, criticism, or the withdrawal of a privilege such as watching television is likely to decrease the chance that the child will engage in that behavior again. Skinner (1953) explained a wide range of behaviors using operant-reinforcement principles, and his followers applied these principles to modify children's social behaviors in classrooms, institutions, and homes, as part of the behavior-modification movement of the 1960s and 1970s (Bijou & Baer, 1961, 1978). Skinner also emphasized the importance of reinforcement schedules and showed that if reinforcement is provided on an intermittent schedule rather than continuously (every time the behavior occurs), the reinforced behavior will be more persistent and resistant to extinction.

In another version of learning theory, **drive-reduction theory**, Clark Hull (1943) argued that the association of stimulus and response in classical and operant conditioning results in learning only if it is accompanied by drive reduction. Primary drives such as hunger and thirst act as motivators. They create tensions that are reduced when the person eats or drinks, and, as a consequence, the actions of

eating or drinking are reinforced and become increasingly strong habits. Through classical conditioning, stimuli associated with the pleasurable feeling resulting from satisfaction of basic drives become rewarding and valued. This theory of drive reduction later became fused with Freud's focus on the feeding situation as a critical context for the development of social relationships. Researchers studying children's early social attachments suggested that nursing at the mother's breast reduces infants' hunger and this is why infants learn to love their mothers. This position was challenged by later theorists as we elaborate on in greater detail in Chapter 4 on "Attachment."

Learning theory approaches: An evaluation Learning theories continue to be useful for explaining some aspects of children's social development. Classical conditioning seems to account for the development of strong emotions in response to certain specific objects, and, more important, it can be used to reduce such strong emotions through systematic desensitization (Gelfand & Drew, 2003; Szigethy et al., 2012). Children can learn to overcome their fear of snakes, dogs, doctors, or the dark by gradual exposure to the feared object or event. For example, a child who is afraid of snakes is asked to imagine a snake, then is shown a snake in a cage at a distance, then is asked to move closer to the snake, and eventually is encouraged to handle the reptile; at each step, the child is taught to relax to counteract the muscle tension associated with fear or anxiety.

Current researchers have also shown the value of operant conditioning for understanding how children's behaviors develop and how they can be modified. Gerald Patterson (1993, 2002; Patterson & Forgatch, 2010) showed that children's aggressive behavior is often increased by the attention (positive reinforcement) that parents pay to such acts as hitting and teasing. He also showed that punishing these acts by a time-out—a brief period of isolation away from other people—can help diminish aggressive behavior. Operant conditioning has been incorporated into many applied programs to help teachers and parents change children's behavior.

Although these approaches can modify children's undesirable behaviors and provide clues about the origins of such behaviors, they are not enough. For one thing, they are not sensitive to developmental changes in children's cognitive, emotional, and social abilities. Their one-size-fits-all nature does not differentiate among children at different ages. As children get older and advance in cognitive and verbal abilities, conditioning techniques may be less effective or efficient for modifying behavior. Alternative strategies, such as reasoning and problem solving, which use children's cognitive and verbal skills, become more effective (Gershoff, 2010, 2013). Conditioning theories also give scant attention to biological differences in children's temperaments and predispositions, which could influence the effectiveness of these approaches for different children (Kim & Kochanska, 2012; Kochanska et al., 2015). Learning theories offer some general principles of social development but do not provide a complete explanation or account for all individual differences among children.

Cognitive Learning Perspective

Cognitive social-learning theory According to cognitive social-learning theory, children learn social behaviors by observing and imitating other people. Albert Bandura was one of the first to demonstrate that children who watched another person behaving aggressively were likely to imitate that person's aggressive actions.

They did not need to be rewarded, have a drive satisfied, or have their aggression elicited by a punch. Bandura showed preschool children an adult hitting and kicking a large Bobo doll (an inflatable clown doll that pops back up after each hit), either live or on videotape (Bandura et al., 1963). When the children were later given the chance to play with the doll, they were more likely to attack it and play aggressively than were children who had not seen the aggressive model. Moreover, the children reproduced many of the model's behaviors accurately and precisely. Neither the adult model nor the children had received any apparent reinforcement, yet quite clearly the children had learned some specific social behaviors. In Bandura's words (1977, p. 38):

"After the capacity for observational learning has fully developed, one cannot keep people from learning what they have seen."

As the name *cognitive* social-learning theory implies, observational learning goes beyond simple imitation. Children do not imitate automatically; cognition is part of the process. Bandura (1997) suggested that four sets of factors determine how well children learn by observing another person's behavior. First, there are factors that affect whether children pay attention to the model's behavior. Children interpret and process the social behaviors they observe on the basis of their past experience, their relationship with the model, the situation in which the observation takes place, and their own personality. They are more likely to pay attention to the model's behavior if they have been rewarded for imitating models in the past, if they have a positive relationship with the model and see him or her as an authority figure, if they are uncertain about how to behave in the situation, and if they have a personality characterized by a high level of attentional focusing. Second, there are factors that affect children's retention of the observed behavior. To be able to imitate a behavior, children must be able to remember it, and children who use rehearsal, organization, and other strategies to recall the observed behavior are more effective learners. Third, there are factors that affect children's reproduction of the observed behavior. Young children who see an older child or an adult perform a complicated social ritual are not likely to be able to reproduce it, no matter how much attention they paid to the behavior or how often they try to copy it. Finally, in addition to these three sets of cognitive factors, children's motivation to reproduce the model's actions affects their learning. They are more likely to imitate the model if they are motivated to do so by extrinsic or intrinsic incentives.

Beyond modeling: reciprocal determination and self-efficacy In the real world, unlike the psychology laboratory, children not only learn from models' behavior, they also influence the model in a process Bandura called *reciprocal determination*. Children's actions produce responses by other people, leading to changes in the social environment and changes in the child, in a kind of social ping-pong game that developmental psychologists call a transactional process (see Figure 1.2). For example, 3-year-old Alex acts by sharing a toy with a peer; the peer responds positively with a smile. Alex, having received reinforcement for his behavior, repeats the action and shares another toy; the peer continues the positive interaction with more shared play. Ultimately Alex develops a positive social attitude, and the two children form a relationship. In this example, Alex has created a positive play environment for himself through his positive actions. Another child who is suspicious and hostile toward other children is more likely to elicit negative reactions from peers and through continued hostility to create an unfriendly and perhaps lonely

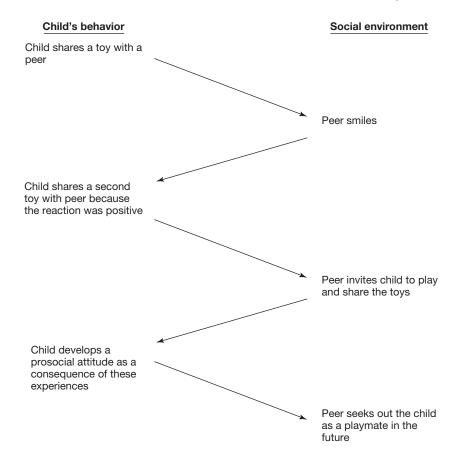


FIGURE 1.2 Possible route to the development of sharing: Reciprocal determination in action.

environment. Thus, according to cognitive social-learning theory, social interactions occur on a two-way street, and children actively contribute to their own social development.

One of the strengths of this theory is its focus on cognition as a guide to social action. As Bandura (1986, p. 15) argued,

"A theory that denies that thoughts can regulate actions does not lend itself readily to the explanation of complex human behavior."

To illustrate the role of cognition in theoretical accounts of social development, Bandura suggested that children develop a sense of self-efficacy whereby they contribute to their own social development by their perception of how competent they are. According to Bandura (2006), children who perceive themselves to be competent are high in *self-efficacy*; they believe that they can solve social problems and are willing to try. Like *The Little Engine that Could* (Piper, 1930), they say to themselves, "I think I can. I think I can. I think I can." Other children who have low self-efficacy are pessimistic about their ability to deal with a social situation and either avoid trying or put forth only a modest effort when entering a social setting or confronting a social problem. Self-efficacy is especially important for determining whether children—or adults—persist in the face of failure or rejection. Only a person with high self-efficacy would persist when he lost eight elections, including two for the U.S. Senate, one for the U.S. House of Representatives, and one for the Vice Presidency (as Abraham Lincoln did) or when his singing group failed to get a recording contract because "We don't like their sound" (as happened to the Beatles).

Children develop self-efficacy from a number of sources, according to Bandura. First, self-efficacy comes from direct experience when children have success in previous similar attempts. Second, self-efficacy comes from vicarious experience when children observe other people who are somehow like them succeeding at similar tasks. Third, parents or peers can be sources of self-efficacy; for example, when an adolescent is rejected by his dream date for the high school dance, his peers might convince him that he should try again, raising his sense of social self-efficacy. Fourth, self-efficacy comes from biological and affective reactions to social situations. If a girl is in a state of fear and anxiety every time she contemplates approaching strangers, her self-efficacy about successful social engagement of new people is likely to be low; if she feels calm, her self-efficacy will be high. Finally, self-efficacy can come from a group such as a peer group, a family, a school, or even a neighborhood. The group's shared belief in its ability as a unit to achieve some goal is termed collective efficacy (Bandura, 2006).

Cognitive social-learning theory: An evaluation The value of the cognitive social-learning approach is indisputable (Grusec, 2011; Miller, 2011), and in this textbook you will see many examples of insights about social development that have been inspired by this theory. Cognitive social-learning theory, particularly with its focus on observational learning, has advanced our understanding of the effects of exposure to television on children's aggression and prosocial behavior, discussed in Chapter 9, "School, Mentors, Media," Chapter 11, "Morality," and Chapter 12, "Aggression." The theory has contributed to our understanding of gender roles (in Chapter 10, "Sex and Gender") and moral behavior (in Chapter 11, "Morality") as well. The theory has also been influential in clinical child psychology and has guided the development of the approaches for helping children overcome fear and phobias through exposure to models who gradually overcome their own fears. It has been given rigorous experimental testing. Bandura's self-efficacy concept has been useful in explaining children's ways of dealing with social failure (discussed in Chapter 8, "Peers"), and his concept of collective efficacy has been used to explain why some schools and communities function well and empower their constituents whereas others do not (discussed in Chapter 9, "School, Mentors, Media").

In spite of these strengths, however, the theory has limitations. First, even though it has influenced the study of social development, cognitive social-learning theory is not very developmental. Bandura paid little attention to the ways observational learning or self-efficacy change with age. Second, although individual differences are recognized in the theory, there is little elaboration of the role of genetic, hormonal, or other biological influences. Third, even though the environment plays an important part in the theory, most of the evidence is based on experimental studies conducted in the laboratory. The degree to which these findings generalize to real-world contexts outside the laboratory is unclear. Finally, the sensitivity of the principles to cultural variations has received relatively little attention.

Information-Processing Perspective

Information-processing theories use computer processing as a metaphor for the way people think (Klahr & MacWhinney, 1998; Siegler, 2016; Siegler & Alibali, 2005). A person attends to input information, changes it into a mental representation, stores it in memory, compares it to other memories, generates response

possibilities, makes a decision about the most appropriate response, and, finally, takes some action. These operations are analogous to computer processing in which information in the form of symbols is entered into the system, undergoes a series of transformations, and finally provides an answer or output. Information-processing theorists who study development see it as continuous, with the quality of thinking at any age depending on the information the person is able to represent, the ways the person can operate on the information, and the amount of information the person can keep in mind at one time (Siegler, 2000, 2016).

Social information processing Social information-processing theory is a version of information-processing theory that provides a powerful analytic tool for understanding social behaviors such as social problem solving and aggression (Arsenio & Lemerise, 2010; Dodge, 2011). According to this theory, in social situations, children proceed through a series of cognitive-processing decisions or steps, such as assessing another child's intention, deciding on possible responses, evaluating the likely outcomes of various courses of action, and finally selecting and acting on their decision (Figure 1.3; for more details see Chapter 8, "Peers" and Chapter 12, "Aggression").

Social information processing: An evaluation Social information-processing theory has generated many insights about the mental steps children engage in when they deal with a social situation. It underscores the links between cognitive understanding and social behavior and has led to numerous demonstrations of how cognitive processes influence children's social decisions and behavior (Crick & Dodge, 1994; Gifford-Smith & Rabiner, 2004). In Chapter 8, "Peers," we show the relevance of this theory for understanding children's peer interactions, and in Chapter 12,



FIGURE 1.3 An information-processing model of children's social behavior. Children perceive and interpret a social situation, decide what they want to achieve, review possible responses, choose a behavior they think will accomplish their goal, and act on their decision. The child's database consists of memories of other situations and knowledge of social rules and experiences. As the double arrows indicate, the child's thinking and action both draw on the database and contribute to it.

Source: Copyright © 1994 by the American Psychological Association. Reproduced with permission. The official citation that should be used in referencing this material is "Crick, N. R., & Dodge, K. A. (1994). A review and reformulation of social information-processing mechanisms in children's social adjustment. *Psychological Bulletin*, 115(1), 74−101." The use of APA information does not imply endorsement by APA.

26

"Aggression," the theory helps us understand how children's evaluation of social encounters can lead sometimes to aggression and sometimes to peaceful resolution. However, this theory provides little insight into how social-cognitive processing changes with age. The theory has also been criticized for its lack of attention to emotional factors and how they modify cognitive decision making in social encounters (Arsenio & Lemerise, 2010; Lemerise & Arsenio, 2000). It presents a profile of a thoughtful, reflective child who goes through a series of deliberate cognitive-processing steps before taking action. It does not account for the fact that much social interaction is routine and automatic and does not require deliberation. It does not account for the impulsive, reactive, even unconscious nature of social responding in familiar situations with familiar people. The value of the social information-processing approach is perhaps most evident in explaining social behavior in novel or unfamiliar social situations or as a description of how modes of social action are initially acquired.

Cognitive Developmental Perspective

To understand children's social development, it is important to understand their cognitive development as well. Two major theorists—Jean Piaget and Lev Vygotsky—have shaped our understanding of cognition in childhood.

Piaget's cognitive developmental theory According to Swiss psychologist Piaget (1928), two processes play a major role in increasing children's cognitive understanding. First, children use their current knowledge as a framework for absorption or assimilation of new experiences. Second, children modify their existing knowledge through the process of accommodation of their mental structures. As they develop, children increase their understanding through the interplay between these two complementary processes.

According to this viewpoint, children actively interpret and make sense of the information and events they encounter. They are not merely passive receivers of experience who are shaped by the reinforcements and models to which they are exposed; they actively seek experience to increase their knowledge. Because of their continual interpretation and reorganization of experience, children construct their own reality, which may differ from the objective reality perceived by adults. The way children perceive and organize new information depends on their level of cognitive development. Piaget proposed that all children go through a number of stages of cognitive development, each characterized by qualitatively different ways of thinking, organizing knowledge, and solving problems (Figure 1.1b; Table 1.3).

Young children are more bound to sensory and motor information than are adolescents and adults, and they are also less flexible and less able to think symbolically and abstractly. Not until adolescence does the ability to use logic and to engage in deductive reasoning appear. Young children are also more **egocentric**—that is, they are more centered on their own perspective than are older children and are less able to take the viewpoint or understand the feelings and perceptions of others. According to Piaget, we may think of cognitive development as a de-centering process in which the child shifts from a focus on self, immediate sensory experience, and single-component problems to a more complex, multifaceted, and abstract view of the world.

Piaget's theory: An evaluation It would be a mistake to underestimate the importance of Piaget's ideas for social development, even though Piaget himself

9	Piaget's Stages of Cognitive Development				
Stage	Age Range (Years)	Characteristics and Achievements			
Sensorimotor	0–2	Differentiates self from objects and other people, seeks interesting sights, develops object permanence and basic understanding of causality, begins to imitate and engage in imaginative play			
Preoperational	2–7	Begins to use symbols and language; problem solving is intuitive and thinking is egocentric, irreversible, centered			
Concrete operations	7–12	Can reason logically about present objects, grasps concept of conservation, can take the perspective of another person, can organize objects into classes and series			
Formal operations	>12	Thinking is flexible and complex; can think about abstract ideas and hypotheses			

might not have fully appreciated their implications. He was busy investigating children's transactions with inanimate objects and largely ignored the fact that these objects were often in the hands of other people and that children learned about them in the context of social interactions. Piaget's theory was helpful for illuminating how children's cognitive development modifies their social reactions. For example, his concept of **object permanence**—the realization that objects and people do not cease to exist when they are no longer visible—has been used in explaining how children develop emotional attachments to their caregivers, as we discuss in Chapter 4, "Attachment." His notion of egocentrism has also been used: When children get older and less egocentric, they are able to switch to different perspectives, and this ability allows them to understand other people's viewpoints, as we discuss in Chapter 6, "Self and Other." One of Piaget's best-known contributions to social development is his descriptions of the shifts in children's judgments about the rightness or wrongness of moral decisions, as we discuss in Chapter 11, "Morality."

However, Piaget's theory has been criticized for its assertion that development proceeds through a series of universal, invariant, and irreversible stages (Bjorklund, 2011; Miller, 2011) and its neglect of social, emotional, and cultural influences on development (Gauvain, 2001b). Piaget's methods, especially those involving his interviews of children, have also been criticized for their lack of scientific rigor (Baillargeon, 2002; Dunn, 1988). In spite of these criticisms, Piaget's influence on research about social development has been widespread, as you will see in later discussions of social cognition, theory of mind, and moral development.

Social cognitive domain theory Although Piaget did not invest a lot of energy in trying to explain children's social development, he influenced modern theorists and researchers who did. For example, Lawrence Kohlberg (1969, 1985) and Elliot Turiel (1983, 2015) used notions from Piaget's theory to explain how children make social judgments about their world and come to understand social and moral rules. Brian Bigelow (1977) demonstrated how children's conceptions of friendship progress through three stages from relatively concrete expectations that friends help and share to more abstract notions that involve expectations of genuineness, intimacy, and self-disclosure. Perhaps the major advance that the developmental

cognitive perspective provided was that it led to the recognition that children categorize social issues into specific *domains* and make different judgments depending on the domain (Smetana, 2017). This notion of **domain specificity** challenged Piaget's theory, which suggested that all domains of knowledge are governed by the same cognitive processes and principles. Social cognitive-domain theory focuses on children's understanding of social issues and is less concerned with links between understanding and social behavior or with the processes that underlie children's abilities to make domain-specific judgments (Grusec & Davidov, 2010).

Vygotsky's sociocultural theory The developmental theory proposed by Soviet psychologist Lev Vygotsky is unique in its emphasis on the importance of the child's social world (Daniels et al., 2007). Although Vygotsky was a contemporary of Piaget, his sociocultural theory of development contrasted markedly. He put forward three principles of cultural influence. First, cultures vary in the settings and practices they provide. Second, these settings and practices facilitate children's development. Third, children learn about their culture from experienced members of the culture. Whereas Piaget generally focused on development achieved by the individual child with little attention to the social context, Vygotsky proposed that development is best understood as a product of social interaction. He suggested that development occurs as children and their more mature social partners—parents, teachers, and older children—work together to solve problems. Thus, his theory focused on dyadic interaction rather than individual behavior. He was also less concerned with children's abilities at a particular point in time than with their potential for growth. To assess this potential and to understand how development occurs, he focused on the zone of proximal development, which is the difference between children's level of performance working alone and their level of performance working with an experienced partner. According to Vygotsky, the assistance provided by other people enables children to reach their full developmental potential and gradually to learn to function on their own. Each child has a set of innate abilities, but input from the child's society in the form of interactions with adults and peers who are more skilled molds these basic abilities into higher-order functions.

Vygotsky's theory: An evaluation Vygotsky offered a fresh perspective from which to view children's development, a new way of measuring children's potential abilities by assessing their zone of proximal development, and new ways of teaching children (Gauvain, 2001a; Rogoff, 1998, 2003). He increased appreciation of the importance of cultural variations and historically based changes. Throughout this book we have included in each chapter a feature titled "Cultural Context," which illustrates the effects of some cultural variation on children's social development. For example, in Chapter 4, "Attachment," we describe the ways that cultural practices shape how infants react to separations from their parents. In Chapter 5, "Emotions," we discuss how parents in different cultures differ in their socialization of children's emotions; some emphasize reticence and frown on overt emotional displays, whereas others encourage full-blown display of emotional expression. And in Chapter 7, "Family," we describe how family roles have changed over historical time.

Many view Vygotsky's theory as a corrective to Piaget's neglect of social contextual factors. On the negative side, Vygotsky was not very developmental and provided little description of how social interaction between partners at different levels of competence shifts over the course of development. He did not indicate how changes in physical, cognitive, or socioemotional development determine the types of contexts that society, through parents and others, makes available to the child.

Finally, measurement of the zone of proximal development is difficult because we have no simple metric to measure the distance between the child's level of functioning alone and with a partner (Cross & Paris, 1988). In spite of these problems, this theory has stimulated a great deal of research in social and cultural aspects of development (Gauvain, 2001b; Rogoff, 2003). In addition, the idea of the zone of proximal development has been a means of helping *define* effective parenting—that is, whether caregivers provide adequate scaffolding to support their children in ways that make it possible for them to succeed at tasks just outside of their ability to do so on their own.

Systems-Theory Perspective

For a long time, developmental psychologists have realized that children are affected by a number of different **systems** including the family, the school, the community, and the culture. Taking a systems-theory approach means describing how children's development is affected by the interacting components that form one of these systems as well as by single factors within the system (Molenaar et al., 2014). For example, to describe how a child learns to cooperate with others at home, a researcher taking a family systems approach would analyze the interactions the child experiences with individual family members and how these individuals function as a family group to promote the behavior. The description would include the child's interactions with siblings and parents, interactions of the mother–father–child triad, and interactions of the family as a social unit. The aim of systems theory is to discover the levels of organization in social interactions and relationships and how these levels or contexts of social experience are related to one another and, in turn, promote children's social development.

Bronfenbrenner's ecological theory Urie Bronfenbrenner's ecological theory is an important application of systems theory (Bronfenbrenner & Morris, 2006). It focuses on the multiple systems in which children are embedded and how these systems are linked, and it stresses the importance of both the relations between the child and these systems and the relations among the systems themselves. In Bronfenbrenner's view, the child's world is organized as a set of nested systems or contexts, like a set of Russian (Matryoshka) dolls, ranging from the most immediate or proximal (the family or peer group) to the most remote or distal (society's values and laws) (Figure 1.4). The **microsystem** is the system in which a child interacts directly with people and institutions. Over time, the relative importance of these people changes. Parents are most important in infancy and early childhood; peers and teachers become more important in middle childhood and adolescence. The **mesosystem** consists of the interrelations among the components of the microsystem, that is, the relations between parents and teachers, between parents and peers, between family members and a religious institution, and so forth. The exosystem is composed of settings that impinge on a child's development but with which the child has largely indirect contact. For example, a parent's work can affect the child's life if it requires the parent to travel a great deal or work late into the night. The macrosystem represents the ideological and institutional patterns of a particular culture or subculture. Finally, these four systems change over time in what Bronfenbrenner termed the **chronosystem**, as changes occur within the child or in one of the systems. In Bronfenbrenner's theory, development involves the interactions of a changing child and changing ecological systems in all their complexity.

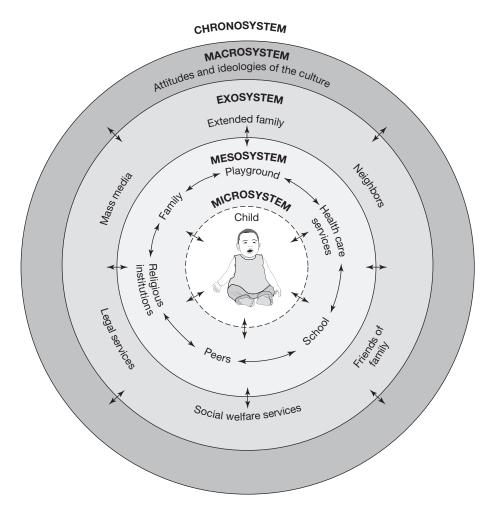


FIGURE 1.4 Bronfenbrenner's ecological model of development. This model emphasizes the importance of children's interactions with the people and institutions closest to them within the microsystem and mesosystem, as well as the effects of a widening array of social and cultural institutions, attitudes, and beliefs within the exosystem and the macrosystem. The fact that all of these systems change over time is represented by the chronosystem.

Ecological systems theory: An evaluation The valuable contribution of the ecological perspective has been to alert us to the broad range of social contexts—such as the family, the peer group, the school, the neighborhood, and religious institutions—that affect children's social development. This perspective is evident in nearly all chapters of the book. The theory also illustrates the value of the perspectives offered by other disciplines. The inclusion of the neighborhood context, for example, incorporates the work of sociologists and criminologists, who have shown links between neighborhood poverty and delinquent activity (Elliott et al., 2006; Leventhal et al., 2015; Sampson & Laub, 1994), as we discuss in Chapter 12, "Aggression." As we detail in Chapter 7, "Family," the inclusion of the parental work context incorporates the work of economists and organizational scientists (Duncan, 2005; Fobre, 2008); the inclusion of the cultural context incorporates the work of anthropologists (Weisner, 2011).

This theoretical approach also has limitations. Although it provides a useful descriptive guide to the various contexts or systems that need to be examined, the

processes by which each one affects children's development are largely drawn from other theoretical perspectives, such as social-learning theory or sociocultural theory. The developmental aspects of the perspective were not articulated in detail, and information about how children's changing capacities alter the effect of exposure to different contexts remains to be collected.

Biological Perspective

A theoretical approach emphasizing the important role of biological factors is increasingly being applied to the study of social development. Three examples of theoretical approaches based on biology are ethological theory, evolutionary theory, and behavior genetics.

Ethological theory The ethological theory developed by European zoologists Konrad Lorenz (1952) and Niko Tinbergen (1951) is based on the belief that to understand behavior, scientists must view it as occurring in a particular setting and as having adaptive or survival value and must study it in relation to the organism's biology and the ecosystem in which the organism functions. To learn about children's social behavior, therefore, researchers must consider the children's needs and the nature of the setting in which their behavior takes place, such as a classroom, a playground, or a library.

Ethological researchers have observed human infants and children to find out which behaviors are "species specific" (unique to the human species) and play a functional role in ensuring survival. They have identified behaviors that are common to all children regardless of the culture into which they are born. For example, emotional expressions of joy, sadness, disgust, and anger are similar across a wide range of modern cultures including those of Brazil, Japan, and the United States, as well as nonindustrialized cultures such as the Fore and Dori tribes of New Guinea (Ekman, 1994; Ekman et al., 1987; LaFreniere, 2010). These behaviors appear to have a biological basis and help ensure that caregivers meet children's needs. Although ethologists view the behaviors as biologically based, they also assume that they are modified by experience. For example, with input from parents and peers, children learn to mask their emotions by smiling even when they are unhappy (McDowell & Parke, 2009; Saarni, 2011; Saarni et al., 2006). Thus, modern ethologists view children as open to input from the environment, not as captives of their biological roots. One important concept in ethology is the critical period, a specific time in an organism's development during which external factors have a unique and irreversible impact.

Ethological theory: An evaluation Ethologists have made a number of significant contributions to our understanding of social development. One contribution was the discovery that nonverbal social behaviors—gestures, postures, facial expressions—regulate social exchanges. For example, monkeys often use threat gestures, such as a stare and bared teeth, to ward off attackers, and they make appeasement signs, such as baring the neck or making themselves look smaller, to call a halt to a struggle. Children also make themselves look smaller—kneeling, bowing, lying down—to express appeasement (Ginsburg et al., 1977). A particularly important contribution of ethology to our understanding of social development was its suggestion that infants' signaling behaviors, such as crying and smiling, promote closeness with caregivers. This suggestion became a central component in John Bowlby's

theory of the development of attachment (discussed in Chapter 4, "Attachment"). Another contribution from ethology was a better understanding of how children's groups are organized. It turns out that children, like monkeys and chickens, develop specific organizational structures and dominance hierarchies or "pecking orders" (Hawley, 2010), as we spell out in Chapter 8, "Peers." Another contribution was the method of study used in ethology. Ethologists observe children and animals in their natural surroundings and develop detailed descriptions and classifications of behavior that they then try to organize into meaningful patterns. For example, ethologists compute rates of hitting, poking, kicking, and yelling, which are then used to define aggression; ethologists observe a slight lift of the eyebrows, a suggestive smile, and a tilt of the head to define flirtatious behavior. As a result of ethological research, observational approaches to studying children have increased in popularity and detail, as we emphasize in Chapter 2, "Research Methods."

However, there are limits to what is learned from ethology. First, the theory is largely descriptive. Although this is a useful first step, more explanatory principles are needed. Second, the application of the concept of critical periods to human development was criticized because it failed to acknowledge that later environmental experiences can sometimes overcome the effects of early experiences. The concept of a narrowly defined "critical" period has now been replaced with the notion of a "sensitive" period that has more porous boundaries (Bornstein, 1989; Wiedenmayer, 2010). The utility of the critical period concept also has been found to vary across domains of development. Some behaviors have a narrow critical or sensitive period, some have a broad window. For example, the window for developing an attachment to a caregiver appears to be the first year of life; the period for learning a second language extends from birth to adolescence.

Evolutionary developmental theory Although ethologists and evolutionary psychologists share many basic assumptions, evolutionary psychology focuses on behaviors that ensured survival of the species in the past. Evolutionary psychologists assume that our ancestors developed complex skills to ensure survival by successfully finding a mate for reproduction, rearing children to the age of reproduction, hunting and securing food, and communicating and cooperating with members of the social group. These processes are seen as instrumental to human functioning more broadly and to social development specifically (Bjorklund & Ellis, 2014; Bugental & Grusec, 2006). After all, one hallmark of evolution is the fact that human beings use their capacities to reason and solve problems in all types of situations—including figuring out how to recognize a familiar group member or escape from a dangerous or threatening enemy. The main questions for developmental evolutionary psychologists are how and when in the course of childhood these adaptive capabilities emerge.

One of the central principles of evolutionary developmental theory is that we are programmed to reproduce and pass our genes to the next generation. This concept is useful for explaining parents' investment in their children. It also helps explain the higher rates of abuse and homicide in stepfamilies compared with biological families (Daly & Wilson, 1996). According to evolutionary theory, stepparents are less protective and invest fewer resources in stepchildren than biological children because they have no genetic investment in them.

Evolutionary developmental psychologists are also interested in the capabilities children develop that enable them to learn from interactions with other people, for example, the ability to understand other people's intentions. They suggest that this ability appeared relatively late in human evolution and is a feature that distinguishes humans from other primates (Tomasello, 2008, 2014). They are also interested in the adaptive value of immaturity. Childhood play, for example, is a seemingly purposeless activity that may, in fact, be important for children's sense of self-efficacy,

for learning and practicing social signaling, and for encouraging curiosity and creativity, regardless of its long-term consequences for adult functioning (Bjorklund, 2008).

A recent application of evolutionary developmental theory is life history theory, which suggests that the schedule of key events over the life course is influenced by natural selection to produce the largest possible number of surviving offspring and thus maximize the successful passing on of the organism's genes. These key events include the age of sexual maturity and first reproduction, the number of offspring produced, and the level of parents' investment in children. According to life history theory, stressful and unpredictable environments, characterized by poverty, harsh parenting, frequent residence changes, paternal transitions, and parents' job changes, can cause children to reach sexual maturity more quickly, begin reproduction earlier, and have more sexual partners than children in less harsh and unstable environments. Children in such challenging environments are less certain about their future longevity, so earlier reproduction has an evolutionary advantage in maximizing their success in transmitting their genes in this way. This theory is supported by data revealing that children in families with a high level of child-parent conflict reach puberty earlier (Ellis, 2004), and that girls in fami-



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According to evolutionary theory, parents give their children attention and resources to ensure the passage of their genes through the next generation.

lies with absent fathers become pregnant at younger ages (Ellis, 2011). Likewise, children in poor, unstable families are more likely to be sexually active at age 15 (Belsky et al., 2012), though such links appear to be weakened when children share secure attachments with their primary caregivers in infancy (Sung et al., 2016).

Evolutionary developmental theory: An evaluation Evolutionary theory illuminates some basic social processes including the capacities that permit social understanding and regulate social behavior. For example, the remarkable ways infants are prepared from birth to socially engage their caregivers, which we discuss in Chapter 3, "Biological Foundations," is probably a set of evolutionary-based skills that have persisted because of their adaptive social function. Our understanding of aggression, discussed in Chapter 12, "Aggression," is enhanced by a focus on the adaptive function of aggressive behavior in regulating social behavior. Evolutionary theory brings attention to the adaptive functions of some uniquely childish behaviors and has provided insights into the role of biological kin ties. However, critics argue that this approach has limited relevance for addressing issues associated with rapid changes, such as new technological advances or sudden social shifts. Another problem with evolutionary theory is that many of its explanations are post hoc, or after the fact, and rely on the general argument that a particular behavior had adaptive value that ensured the survival of the species. Determining the function of a particular behavior is not so easy. As one skeptic has observed (Miller, 2011, p. 365):

"The evolution of anatomical structures can be gleaned from fossils, but we have no fossils of human behavior."

Therefore, knowing what function a behavior served many generations ago is difficult. Moreover, behaviors that were adaptive in ancient times may not be adaptive in current society. For example, although understanding others' intentions continues to be a useful skill, some forms of physical aggression and a liking of fatty

foods appear to be less adaptive. It has also been suggested that evolutionary theory should be integrated with advances in neuroscience because some of the theory's assumptions can be directly evaluated by investigating brain functioning (Panksepp & Panksepp, 2000; Panksepp et al., 2017).

Human behavior genetics The field of human behavior genetics came into prominence in the 1960s when scientists focused their attention on the relative contributions of heredity and environment to individual differences in human behavior (Plomin et al., 2001). These researchers wondered why some children are outgoing and sociable while others are introverted and shy; why some children—and adults—are chronically aggressive whereas others seek to cooperate and avoid confrontation. Unlike biologists who study heredity, these behavior geneticists originally conducted their research without directly measuring chromosomes, genes, or DNA. Their primary strategy was to use statistical techniques to estimate the contribution that heredity makes to particular abilities or types of behavior. More recently, advances in genetic science have allowed behavior geneticists to assess genes as well (Gregory et al., 2011; Plomin, 2013).

Since the 1960s, behavior geneticists have studied a number of differences in children's social behavior, such as those in sociability, fear, and irritability. These differences appear in the earliest days of life and to some extent persist throughout childhood (Rothbart, 2011; Sanson et al., 2011; Thomas & Chess, 1986), suggesting that genes influence these behaviors. However, the fact that these behaviors do not always lead to identical outcomes in different children indicates that they are also susceptible to environmental influences (Grigorenko, 2002; Knopik et al., 2014). Behavior geneticists have shown that both heredity and environment contribute to individual differences in emotionality, activity level, and sociability (Kochanska et al., 2011; Plomin et al., 2016; Rutter, 2006). This information is of great value in our effort to understand and predict social development. Behavior-genetics researchers have also importantly brought into high relief a significant limitation of much research on socialization—that many such studies, which often examine correlations between parental behaviors and child outcomes, are unable to differentiate effects of shared genes versus shared environments because parents and their biological children share on average 50 percent of their species-specific genetic variation (Roisman & Fraley, 2006; Turkheimer, 2000).

Human behavior genetics: An evaluation The behavior genetics perspective has provided an important corrective to psychologists' long-held emphasis on environmental causes of behavior, along with an important corrective to the kinds of research designs used in the field of socialization research, which now include much more genetically informed designs (e.g., twin and adoption studies) and other means (e.g., intervention and prevention research that rely on experimental randomization) that are arguably better positioned to demonstrate any true effects of the environment and experience. Of course, many social behaviors are clearly influenced by genetic factors. This is illustrated by individual differences in aggression and helpfulness, although the particular genes or gene clusters accounting for the biological predispositions to act aggressively or altruistically are still not totally known, as we discuss in Chapter 12, "Aggression," and Chapter 11, "Morality." In their early days, behavior geneticists were criticized for being reductionist and assuming that genetic factors were more important than environmental factors; however, modern behavior geneticists acknowledge that inputs from many sources, from genetics to culture, are important in explaining social development. Despite this acknowledgment, measurement of the environment in many behavior genetics studies is still quite general and nonspecific. Therefore, the ways in which genetic expression is modified by particular environments remain to be described.

Life Span Perspective

The life span theory of development, as the name implies, extends the frame of development beyond childhood and through adulthood, because people are open to change across their entire lives (Baltes et al., 2006; Elder & Conger, 2000; Elder & George, 2015). According to this perspective, change over time can be traced to three sets of causes. First, there are *normative events*, which most people encounter at roughly the same age. Some of these events, such as the onset of menstruation in adolescent girls, are biological or maturational. Other normative events are programmed by society, for example, entering school at age 5 or 6, beginning college at age 17 or 18, and marrying in the 20s or early 30s and pregnancy in the 20s or 30s. The quote from this 22-year old woman who was pregnant illustrates the societal expectations for these normative events (Elder & Shanahan, 2006, p. 697):

"I was ready, my husband was ready, my mother was ready, my father was ready, my grandmother couldn't wait."

A second set of causes of change involves unexpected events that push development in new directions. Life span theorists term these *nonnormative events* because they do not happen to everyone in the normal course of development and they do not follow any preset schedule. Instead, they happen to any child or family at any time and often without warning or anticipation. Divorce, job loss, residence change, and teen pregnancy are nonnormative events that affect development. Here, for example, is the reaction of a 30-year-old woman who had just found out that her teenage daughter was pregnant (Elder & Shanahan, 2006, p. 697):

"I can't be a young momma and a grand momma at the same time. Something seems funny about that, don't you think?"

Historical events constitute the third set of factors that influence development. People who were born in the same year or age period make up **age cohorts** who share the same historical experiences. For example, people born in 1950 were adolescents during the late 1960s, an era of considerable upheaval and social unrest; people born in 1970 were adolescents in 1989 when the Communist monopoly in Europe collapsed and the Cold War ended; people born in 1980 were adolescents in the 1990s when Internet use exploded and changed the way we communicate.

Life span perspective: An evaluation The life span perspective reminds us that development is a life-long process and that both normative and nonnormative events affect developmental trajectories and outcomes. For example, as we highlight in Chapter 7, "Family," children growing up in the 1950s had very different social experiences from those growing up today, and as we describe in Chapter 13, "Policy," becoming a parent as a teenager is a very different experience from becoming a parent at a later age. The life span perspective focus on age cohorts underscores the fact that historical eras modify development. Another contribution of this perspective is that it highlights changes in adults' lives, which may, in turn, affect children's development. For example, parents who experience nonnormative stressful events, such as losing a job or getting a divorce, provide less-optimal rearing for their children, and this affects children differently, depending on their

age, as we discuss in Chapter 7, "Family." In short, the developmental trajectories of parents and children are linked, and both need to be considered in order to understand children's development. One of the reasons this perspective has not had more impact on the study of children's social development is that much of the theorizing has involved older adults. As a result, social development researchers have used the perspective mainly as a descriptive aid; few of the processes generated by the theory for older age groups have filtered down to explain children's social development.

A Variety of Theoretical Perspectives

Today no single overarching theory adequately addresses all aspects of social development. Instead, development can be approached from a variety of perspectives. The grand theories of Freud and Piaget, which attempted to explain wide swaths of development, have, for the most part, been replaced by modern theories that are more modest in scope. These current theories offer detailed accounts of particular domains or developmental phenomena, and as a result some offer better and more complete accounts of certain aspects of development than others. Ethological theory is especially helpful in describing the development of emotional expressions and communication and how children's social groups are organized. Cognitive social-learning theory and social information-processing theory offer useful perspectives for explaining aggression. Systems theories offer a framework for studying the influence of the family and social institutions on social development. All of these theoretical perspectives have a place in the broad study of social development, and it is often helpful to draw on several to investigate a particular research question.



earning from Living Leaders: Joan E. Grusec



Joan Grusec is Professor of Psychology Emerita at the University of Toronto, where she first learned of social learning theory as an undergraduate. She found it exciting enough to trek off to Stanford University for graduate work with Albert Bandura, abandoning her plans to be a social worker or a historian. Since then, she has been an advocate, chronicler, and modifier of social learning theory. Her early work with Bandura focused on

imitation. Later she studied children's prosocial behavior and parents' discipline processes. She was interested in what makes parents effective in achieving their socialization goals and what makes some parents more effective than others. She found that parents' effectiveness depended on the child's age, the parent's emotional state, and the cultural context. Grusec is a Fellow of the Canadian Psychological Association and the American Psychological Association and has been Associate Editor of the journal Developmental Psychology. She believes that developmental psychology is the most exciting area of psychology because it is the only one that brings together under one umbrella a concern with how biology and culture interact over the course of time to make us what we are.

Further Reading

Grusec, J. E. (2011). Socialization processes in the family: Social and emotional development. *Annual Review of Psychology*, 62, 243–269.

Barbara Rogoff



Barbara Rogoff, UCSC Foundation Distinguished Professor of Psychology at the University of California, Santa Cruz, has been a major force in bringing attention to the role of culture in children's development. Like many others in the field, she did not plan to be a psychologist. She started out to be a cartoonist and majored in art. Her cultural journey began when as a graduate student at Harvard she became involved in research in a Mayan town in Guatemala. After discovering that how these people thought and acted was closely related to their social experiences, she began a career examining how people learn, how other people help them learn, and how this varies in different cultural communities.

Through her work in different cultures and in a wide array of settings from classrooms to Girl Scouts to school drama groups, she showed how cultural rules govern social development. In her book, Apprenticeship in Thinking, she demonstrated the value of Vygotsky's theory as a way to understand how learning takes place in routine everyday social interactions with parents, siblings, and peers. For Rogoff, the pressing issue for the field of social development is how to foster children's development in ways that respect the differences in the values and practices of their cultural communities.

Rogoff has received many honors for her work. She is a Fellow of the American Psychological Society, the American Psychological Association, and the American Anthropological Association. She has served as a committee member

on the Science of Learning for the U.S. National Academy of Sciences and several years ago she received the 2013 Award for Distinguished Lifetime Contributions to Cultural and Contextual Factors in Child Development, from the Society for Research in Child Development. She sends this message to students: "You are the generation that can make a real difference in how we understand and foster children's development in the varying communities of the United States and the world. I hope you continue to think about these issues long after you finish reading this book."

Further Reading

Rogoff, B. (2011). Developing destinies: A Mayan midwife and town. New York: Oxford University Press.

David Bjorklund



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David Bjorklund is Professor of Psychology at Florida Atlantic University. He has taught there for more than 30 years, since completing his Ph.D. work at the University of North Carolina. As an undergraduate, Bjorklund wanted to be a clinical child psychologist "saving the world by curing one neurotic child at a time." However, the reality of working with delinquent youth during college made him realize that he was not cut out for a clinical career but was more suited to research. After a lengthy period doing research on children's cognitive development, Bjorklund became an eloquent spokesman for the evolutionary theoretical perspective. His views are described in his book The Origins of Human Nature: Evolutionary Developmental Psychology, which was the first extended treatment of an evolutionary approach to development.

Bjorklund believes that our unique intelligence is not technological ability but an ability to negotiate the social environment, to cooperate with others, and to understand their intentions and desires. The central question that concerns him is how human social intelligence evolved. He suggests that many social development issues can be better understood through an evolutionary lens. For example, although child abuse and young males' aggression are no longer adaptive in modern environments, they may have been adaptive in our evolutionary past. Bjorklund hopes that in the future the field will embrace more biological ideas including not only evolution but also the effects of hormones and the central nervous system on

social behavior. He has been widely recognized for his work, receiving the Alexander von Humboldt Research Award and invitations to be a visiting professor in Germany, Spain, and New Zealand. He is editor of the *Journal of Experimental Child Psychology* and served as a contributing editor to *Parents Magazine*. He advises undergraduates to do what works for him, "Write to see what you think."

Further Reading

Bjorklund, D. F., Hernández Blasi, C., & Ellis, B. J. (2016). Evolutionary developmental psychology. In D. M.Buss (Ed.), Evolutionary psychology handbook, 2nd Ed. (Vol. 2) (pp. 904–925). New York: Wiley.

Chapter Summary

Social Development

• The field of social development includes descriptions of social behavior, individual differences in social behavior, and changes in social behavior with age as well as explanations for these changes and differences.

Social Development: A Brief History

• The scientific study of social development began with Darwin's work in the 1800s. Subsequently, competing views were expressed in Watson's behaviorally oriented theory, Freud's biologically inspired theory, and Gesell's maturational theory.

Critical Questions about Social Development

- How do biological and environmental influences affect social development? Modern developmental psychologists recognize the importance of both biological and environmental influences and are concerned with discovering the ways these factors interact to produce developmental differences.
- What role do children play in their own development? Most developmental psychologists believe that children actively shape, control, and direct the course of their own development.
- What is the appropriate unit for studying social development? Although researchers have typically focused on individual children, they have increasingly recognized that other units such as dyads, triads, and social groups are also important.
- Is development continuous or discontinuous? Some theorists view social development as a continuous process whereby change takes place smoothly and gradually. Others see development as a series of qualitatively different stages or steps. The more closely we examine development, the more we see ebbs and flows in the acquisition of social skills.
- Is social behavior the result of the situation or the child? Most developmental psychologists stress the complementary roles of situational factors and child differences.

- Is social development universal across cultures? Most developmental psychologists agree that cultural contexts should be considered but believe that universal aspects of development such as emotions, language, and communication coexist with cultural variations.
- How does social development vary across historical eras? Both abrupt and gradual changes in society influence social development.
- Is social development related to other developmental domains? Social development influences and is influenced by emotional, cognitive, language, perceptual, and motor development.
- How important are mothers for children's social development? Although
 mothers are clearly important in children's social development, other people
 including fathers, siblings, grandparents, peers, teachers, and religious leaders
 also are important influences.
- Is there a single pathway for social development? Children can start out at a similar place but end up at very different points (multifinality), or they can follow different paths but end up at the same point (equifinality).
- What influences how we label children's social behavior? Three sets of factors—characteristics of the child, the adult, and the context—influence social judgments and, in turn, how social behaviors are labeled.
- Do developmental psychologists own social development? Scholars in a variety
 of fields including pediatrics, psychiatry, anthropology, economics, law, sociology, history, and genetics have made valuable contributions to the field of
 social development.
- Is social development focused only on basic research or on applied and policyrelevant questions as well? In fact, both are key emphases in the area of social development and are often mutually informative endeavors.

Theoretical Perspectives on Social Development

 Theories help organize and integrate knowledge into a coherent account of how children develop and foster research by providing testable predictions about behavior. Historically, grand theories reflected attempts to account for all aspects of development. Modern theories tend to be more narrowly focused attempts to explain specific aspects of social development.

Psychodynamic Perspective

- In Freud's psychodynamic theory, basic biological drives motivate the child. Early experiences are essential for determining later behavior.
- Erikson expanded Freud's theory to include social and cultural influences on development. His psychosocial theory is organized around a series of fundamental personal and social tasks that individuals must accomplish at each stage.
- Psychodynamic theories helped shape many concerns of modern social development, including the effects of early experience in the family and the psychological roots and importance of aggression, morality, gender roles, and attachment. However, the central claims of the theories are difficult to test empirically.

Traditional Learning Perspective

 Traditional learning theories emphasize how new behaviors are acquired through a gradual and continuous process of learning. The theories had important applications and have been used in homes, schools, and clinics to reduce children's behavior problems. Their lack of attention to developmental changes is a limitation.

Cognitive Social-Learning Theory

 Bandura focused attention on observational learning. The notions of reciprocal determinism and self-efficacy were important additions to this theoretical position. The lack of attention to developmental issues, the limited ecological validity of the findings, and the limited recognition of the roles of biology and culture are shortcomings of the theory.

Social Information-Processing Theory

• The social information-processing approach focuses on how children take in, use, and remember information to make decisions about social actions. The lack of developmental focus, the limited role allocated to emotion, and the heavy emphasis on deliberate decision making rather than automatic or habitual responding are limitations of this perspective.

Cognitive Developmental Perspective

• In Piaget's theory of development, children actively seek new experiences and from them construct mental structures. They assimilate new information into existing structures and accommodate structures when the information doesn't fit. Piaget's focus on stages has been questioned, and his lack of emphasis on emotions, culture, and social behavior make his theory of limited use in the field of social development.

Social Cognitive Domain Theory

• The social cognitive domain perspective focuses on how children learn to make social judgments about their world. According to this approach, children's social judgments are domain specific.

Vygotsky's Sociocultural Theory

• Vygotsky's theory focuses on the contributions of social and cultural factors to children's development. Children grow and change as a function of their own efforts and the guidance of skilled others. The theory does not describe how interactions change over the course of development.

Systems Perspective

- According to systems theories, other elements or members of the system influence an individual's behavior.
- Bronfenbrenner's ecological systems theory stresses the importance of relations between the child and environmental systems, such as the family, school, community, and culture. Development involves the interplay between the child and the microsystem, mesosystem, exosystem, macrosystem, and chronosystem. Lack of developmental focus as well as limited information about the processes that govern cross-level linkages are limitations of this theory.

Biological Perspective

- Ethologists observe behavior in natural settings and study patterns of behavior across human and infrahuman species and across human societies and cultures. The theory is largely descriptive.
- Evolutionary psychology asserts that social behaviors reflect survival needs and
 processes of human evolution. It focuses attention on parental investment as a
 way to ensure intergenerational continuity of genes and on the adaptive value
 of immaturity. A recent application of evolutionary developmental theory is
 "life history theory," which suggests that the schedule of key events over the

life course is influenced by natural selection to produce the largest possible number of surviving offspring and thus maximize the successful passing on of the organism's genes. These key events include the age of sexual maturity and first reproduction, the number of offspring produced, and the level of parental investment in children. The evolutionary approach has limited relevance for addressing issues associated with rapid changes. Some are concerned that explanations are post hoc.

Behavior genetics addresses the relative contributions of heredity and environment to social development and the interdependence between environmental conditions and whether and when genes are expressed in behavior. The particular genes or clusters of genes that account for social outcomes are still poorly understood, and the way the environment is measured is often very general.

Life Span Theory

- The life span theory emphasizes development over the entire life course. Changes can be traced to normative age-graded events including entry into school, nonnormative events such as divorce, and historical or cohort-related events such as the Great Depression or the Vietnam War.
- The impact of this perspective is limited by the fact that much of the theorizing has involved older adults.

Variety of Theoretical Perspectives

Social development can be approached from a variety of perspectives and it is
often helpful to draw on several theories to explain children's development.

Key Terms

accommodation
age cohorts
assimilation
chronosystem
classical conditioning
cognitive sociallearning theory
critical period
desensitization
domain specificity

drive-reduction theory
ecological theory
ego
egocentric
Electra complex
equifinality
ethological theory
exosystem
generativity
id

life history theory
macrosystem
maturation
mesosystem
microsystem
multifinality
object permanence
Oedipus complex
operant conditioning
psychodynamic theory

psychosocial theory social dyad social informationprocessing theory sociocultural theory superego systems transactional zone of proximal development

At the Movies

A number of movies and videos illustrate the ideas and theories discussed in this chapter. *Biography—Sigmund Freud: Analysis of a Mind* (2004) uses photographs, interviews with psychoanalysts and Freud's grandchildren, and even a brief recording that Freud himself made to provide a glimpse into the life of this complex man. Freud didn't intend to get into psychiatry. His dream was to be a research scientist, but because of Jewish quotas, he wasn't permitted to enter

that field. Instead, he became a doctor specializing in nervous diseases. You can view home movies of Freud with his friends and family made in the 1930s at these sites: http://www.freud-museum.at/freud/media/video-e.htm; http://www.youtube.com/watch?v=SQOcf9Y-Uc8

Lost in Translation (2003) is useful for illustrating Erikson's psychosocial stages of development. The movie explores the relationship between a young woman and a middle-aged man stuck in Tokyo. Both characters are experiencing developmental crises. They help each other articulate their dilemmas and begin to take steps forward.

A commercial movie portraying classical conditioning is Stanley Kubrick's science fiction drama, *A Clockwork Orange* (1971). A violent youth convicted of murder and rape is given an experimental program of "aversion therapy" in which he is conditioned to detest violence.

Television programs discussing the work of Piaget include L'Épistémologie génétique de Jean Piaget (1977). The documentary film The Genius of Charles Darwin (2008) includes segments on Darwin's life and discoveries and an attempt to convince a group of school children that evolution explains the world better than religion. The movie Creation (2009) focuses on Darwin's personal life during the time he was writing On the Origin of Species and reveals the struggles he went through balancing his religious faith with his science. Finally, ethological theory is illustrated in the short documentary Konrad Lorenz: Science of Animal Behavior (1975). Lorenz's work is also the basis for the movie Fly Away Home (1996) in which a young girl becomes the "mother" to a flock of geese and has to teach them how to migrate south for the winter.

In addition to these films focused on psychological theories and theorists are movies that highlight the "critical questions" these theories address. The question of the extent to which social development is influenced by environmental factors is front and center in NOVA: Secret of the Wild Child (1997), a documentary about Genie, the 13-year-old girl who was rescued from her home by social workers after a decade with virtually no human contact. For a humorous take on this question, watch Human Nature (2001), which follows the ups and downs of a

scientist, a naturalist, and a man born and raised in the wild. The scientist trains the wild man in the ways of the world, starting with table manners; the naturalist fights to preserve the man's simian past. On a more serious note, Where Do the Children Play? (2002) shows how children's experiences depend on where and when they are born and provides an answer to the question of how social development varies across historical eras. The film opens by examining differences between growing up today and childhood as it was lived 50 years ago and examines how restrictive patterns of sprawl, congestion, and suburban development affect children's development.

The question of whether social development is universal across cultures is addressed implicitly in numerous films showing children's experiences in different cultures. A few of these films are Families of the World (1997-2000), a documentary series illustrating cultural differences and similarities among children from Mexico, Japan, India, Egypt, China, Russia, France, the United States, and several other nations. Each film records two children performing their daily activities. Other movies portraying children's experiences in cultures other than our own include Xiang ri kui (2005), a dramatic tale about the life of a boy in an urban Chinese family, his conflicts with his father, and how both are affected by society; La Quinceañera (2007), a portrait of a Mexican family's love and devotion to each other; Persepolis (2007), a portrayal of events through the eyes of a girl experiencing the Iranian Revolution of 1979 and the new Iran ruled by Islamic fundamentalists; and Slumdog Millionaire (2008), which offers a glimpse of life in the slums of Mumbai, India. Babies (2010) is a visually stunning film that chronicles the lives of four infants—in Mongolia, Namibia, San Francisco, and Tokyo-from first breath to first steps.