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Adolescence
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Summing Up
IN THE DIM DAWN LIGHT OF A SIMPLE REED HOUSE IN TEHUANTEPEC, MEXICO, 16-YEAR-OLD CONCHITA LEANS OVER AN OPEN, BARREL-SHAPED OVEN. Although it is just dawn, she has already been working for 2 hours making tortillas. It is difficult work, standing over the hot oven, and hazardous, too; she has several scars on her arm from the times she has inadvertently touched the hot steel. She thinks with some resentment of her younger brother, who is still sleeping and who will soon be rising and going off to school. Like most girls in her village, Conchita can neither read nor write, because it is only the boys who go to school.

But she finds consolation in looking ahead to the afternoon, when she will be allowed to go to the center of town to sell the tortillas she has made beyond those that her family will need that day. There she will see her girlfriends, who will be selling tortillas and other things for their families. And there she hopes to see the boy who spoke to her, just a few words, in the town square two Sunday evenings ago. The following Sunday evening she saw him waiting in the street across from her home, a sure sign that he is courting her. The following Sunday evening she saw him waiting in the street across from her home, a sure sign that he is courting her. But her parents would not allow her out, so she hopes to get a glimpse of him in town.

In Amakiri, Nigeria, 18-year-old Omiebi is walking to school. He is walking quickly, because the time for school to begin is near, and he does not want to be one of the students who arrive after morning assembly has started and are required to kneel throughout the assembly. Up ahead he sees several of his fellow students, easily identifiable by their gray school uniforms, and he breaks into a trot to join them. They greet him, and together they continue walking. They joke nervously about the exam coming up for the West African School Certificate. Performance on that exam will determine to a great extent who is allowed to go on to university.

Omiebi is feeling a great deal of pressure to do well on the exam. He is the oldest child of his family, and his parents have high expectations that he will go to university and become a lawyer, then help his three younger brothers go to university or find good jobs in Lagos, the nearest big city. Omiebi is not really sure he wants to be a lawyer, and he would find it difficult to leave the girl he has recently begun seeing. However, he likes the idea of moving away from tiny Amakiri to the university in Lagos, where, he has heard, all the homes have electricity and all the latest American movies are showing in the theaters. He and his friends break into a run over the last stretch, barely making it to school in time to join their classes before the assembly starts.

Adolescents experience dramatic changes in physical appearance, family relations, peer relations, sexuality, and media use.
Three adolescents, in three different cultures, with three very different lives. Yet all are adolescents: All have left childhood but have not yet reached adulthood; all are developing into physical and sexual maturity and learning the skills that will enable them to take part in the adult world.

As these profiles illustrate, adolescence is a time of dramatic changes. The physical changes are the most obvious, as the body goes through puberty. However, there are other dramatic changes as well, in family relations, peer relations, sexuality, and media use. Adolescents also change in how they think and talk about the world around them.

Adolescence is a cultural construction, not simply a biological phenomenon or an age range. Puberty—the set of biological changes involved in reaching physical and sexual maturity—is universal, and the same biological changes take place in puberty for young people everywhere, although with differences in timing and in cultural meanings, as we shall see. But adolescence is more than the events and processes of puberty. Adolescence is a period of the life span between the time puberty begins and the time adult status is approached, when young people are preparing to take on the roles and responsibilities of adulthood in their culture. To say that adolescence is culturally constructed means that cultures vary in how they define adult status and in the content of the adult roles and responsibilities adolescents are learning to fulfill. Almost all cultures have some kind of adolescence, but the length and content and daily experiences of adolescence vary greatly among cultures (Larson et al., 2010). There is no definite age when it begins and no definite age when it ends, but it usually begins after age 10 and ends by age 20, so it comprises most of the second decade of life.

There are two broad cultural forms that adolescence takes today. In developed countries, adolescents begin puberty early in the second decade of life, usually around age 10 or 11. They spend most of their days in school with their peers. Outside of school, too, they spend most of their leisure time with other persons their age—friends and romantic partners. A substantial proportion of their daily lives involves media use, including the Internet, television, and recorded music.

But there is another cultural form of adolescence that is prevalent in most of the developing world, including Africa, Asia, and South America. In this kind of adolescence, a typical day is spent not mostly with peers in school but with family members, working (Schlegel, 2010; Schlegel & Barry, 1991). Girls spend most of their time with their mothers and other adult women, learning the skills and knowledge necessary to fulfill the roles for women in their culture. Boys spend most of their time with adult men, learning to do what men in their culture are required to do, but they are allowed more time with friends than adolescent girls are. Some adolescent boys and girls go to school, but for others school is something they left behind by the end of childhood.

We will discuss both these forms of adolescence in the course of this chapter, and the many variations that exist within each form. We will also discuss the ways that the traditional cultural forms of adolescence are changing with exposure to industrialization and globalization.
Adolescence begins with the first notable changes of puberty, and in the course of puberty the body is transformed in many ways and reaches the capacity for sexual reproduction. Although adolescence is a culturally-constructed period of life, the biological changes of puberty are a central part of development during adolescence in all cultures. Many changes take place, and they are often dramatic. After growing at a more or less steady rate through childhood, at some time early in the second decade of life children begin a remarkable metamorphosis that includes a growth spurt, the appearance of pubic hair and underarm hair, changes in body shape, breast development and menstruation in girls, the appearance of facial hair in boys, and much more. The changes can be exciting and joyful, but adolescents experience them with other emotions as well—fear, surprise, annoyance, and anxiety. New research reveals some surprising findings in brain development, too, as we will see.

The Physical Changes of Puberty

The word *puberty* is derived from the Latin word *pubescere*, which means “to grow hairy.” This fits; during puberty hair sprouts in a lot of places where it had not been before! But adolescents do a lot more during puberty than grow hairy. Puberty entails a biological revolution that dramatically changes the adolescent’s anatomy, physiology, and physical appearance. By the time adolescents reach the end of their second decade of life they look much different than before puberty, their bodies function much differently, and they are biologically prepared for sexual reproduction.

**HORMONAL CHANGES** Pubertal changes begin once a threshold level of body fat is reached (Alsaker & Flammer, 2006). During middle childhood the proportion of fat in the body gradually increases, and once a threshold level is reached a series of chemical events is triggered beginning in the hypothalamus (refer back to Chapter 4, page 131), a bean-sized structure located in the lower part of the brain (Shalatin & Philip, 2003). These events lead the ovaries (in girls) and testes (in boys) to increase their production of the sex hormones. There are two classes of sex hormones, the *estrogens* and the *androgens*. With respect to pubertal development, the most important estrogen is *estradiol* and the most important androgen is *testosterone* (Shirtcliff et al., 2009).
Estradiol and testosterone are produced in both males and females, and throughout childhood the levels of these hormones are about the same in boys and girls (Money, 1980). However, once puberty begins, the balance changes dramatically (see Figure 8.1). By the midteens, estradiol production is about 8 times as high in females as it was before puberty, but only about twice as high in males (Susman & Rogol, 2004). In contrast, testosterone production in males is about 20 times as high by the midteens as it was before puberty, but in females it is only about 4 times as high. These hormonal increases lead to the other bodily changes of puberty, the primary and secondary sex characteristics.

**PRIMARY AND SECONDARY SEX CHARACTERISTICS** Two kinds of changes take place in the body in response to increased sex hormones during puberty. Primary sex characteristics are directly related to reproduction: specifically, the production of ova (eggs) in females and sperm in males. Secondary sex characteristics are the other bodily changes resulting from the rise in sex hormones during puberty, not including the changes related directly to reproduction.

The development of ova and sperm take place quite differently (refer to Chapter 2). Females are born with all the eggs they will ever have, and they have about 40,000 eggs in their ovaries at the time they reach puberty. Once a girl reaches menarche (her first menstrual period) and begins having menstrual cycles, one egg develops into a mature egg, or ovum, every 28 days or so. Females release about 400 ova over the course of their reproductive lives.

In contrast, males have no sperm in their testes when they are born, and they do not produce any until they reach puberty. However, beginning with their first ejaculation (called spermarche) males produce sperm in astonishing quantities. There are between 100 and 300 million sperm in the typical male ejaculation, which means that the average male produces millions of sperm every day. If you are a man, you will probably produce over a million sperm during the time you read this chapter—even if you are a fast reader!

The secondary sex characteristics are many and varied, ranging from the growth of pubic hair to a lowering of the voice to increased production of skin oils and sweat. A summary of the major secondary sex characteristics and when they develop is shown in Table 8.1.

![Fig 8.1](image)

**Figure 8.1** Hormonal Changes in Puberty

Girls and boys follow very different hormonal paths at this life stage.

**Source:** Nottelmann et al. (1987)

<table>
<thead>
<tr>
<th>TABLE 8.1 Timing of the Physical Changes of Puberty</th>
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<tbody>
<tr>
<td><strong>Characteristic</strong></td>
</tr>
<tr>
<td>Pubic hair</td>
</tr>
<tr>
<td>Breast development</td>
</tr>
<tr>
<td>Growth spurt</td>
</tr>
<tr>
<td>Menarche</td>
</tr>
<tr>
<td>Change in voice</td>
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<tr>
<td>Sperm production</td>
</tr>
<tr>
<td>Underarm hair</td>
</tr>
<tr>
<td>Skin oil and sweat</td>
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</tbody>
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Based on: Goldstein (1976); Chumlea et al. (2003).
BRAIN DEVELOPMENT  In addition to the hormonal changes and development of primary and sex characteristics, there are important neurological changes taking place in adolescents’ bodies. In recent years, there has been a surge of research on neurological development in adolescence and emerging adulthood (Casey et al., 2008; Giedd, 2008; Keating, 2004). Some of the findings from this new research have been surprising and have overturned previous views of brain development in adolescence.

It has long been known that by age 6 the brain is already 95% of its adult size. However, when it comes to brain development, size is not everything. Equally if not more important are the synaptic connections between the neurons (refer back to Chapter 4). Now scientists have learned that a sharp increase in synaptic connections occurs around the time puberty begins, ages 10–12, a process called overproduction or exuberance. Earlier studies had shown that overproduction occurs during prenatal development and through the first three years of life, but now it turns out that overproduction occurs in early adolescence as well (Giedd, 2008; Giedd et al., 1999). Overproduction of synaptic connections occurs in many parts of the brain during adolescence but is especially concentrated in the frontal lobes (Keating, 2004). The frontal lobes are involved in most of the higher functions of the brain, such as planning ahead, solving problems, and making moral judgments.

The findings about overproduction in early adolescence are surprising and fascinating, but equally fascinating is what follows. Overproduction peaks at about age 11 or 12, but obviously that is not when our cognitive abilities peak. In the years that follow a massive amount of synaptic pruning takes place, in which the overproduction of synapses is whittled down considerably—synapses that are used remain, whereas those that are not used wither away (see Chapter 4). In fact, between the ages of 12 and 20 the average brain loses 7 to 10% of its volume through synaptic pruning (Sowell et al., 1999). Recent research using fMRI methods (refer to Chapter 5) shows that synaptic pruning is especially rapid among adolescents with high intelligence (Shaw et al., 2006). Synaptic pruning allows the brain to work more efficiently, as brain pathways become more specialized. However, as the brain specializes in this way it also becomes less flexible and less amenable to change.

Myelination is another important process of neurological growth in adolescence (refer again to Chapter 4). Myelin is a blanket of fat wrapped around the main part of the neuron, and it serves the function of keeping the brain’s electrical signals on one path and increases their speed. Like overproduction, myelination was previously thought to be over prior to puberty but has now been found to continue through the teens (Giedd, 2008; Paus, 1999; Sowell et al., 2002). This is another indication of how brain functioning is becoming faster and more efficient during adolescence. However, like synaptic pruning, myelination also makes brain functioning less flexible and changeable.

Finally, one last recent surprise for researchers studying brain development in adolescence has been in the growth of the cerebellum (refer back to Chapter 6). This is perhaps the biggest surprise of all, because the cerebellum is part of the lower brain, well beneath the cortex, and has been long thought to be involved only in basic functions such as movement. Now, however, research shows that the cerebellum is important for many higher functions as well, such as mathematics, music, decision making, and even social skills and understanding humor. It also turns out that the cerebellum continues to grow through adolescence and well into emerging adulthood, suggesting that the potential for these functions continues to grow as well (Strauch, 2003). In fact, it is the last structure of the brain to stop growing, not completing its phase of overproduction and pruning until the midtwenties.

The Timing of Puberty

LEARNING OBJECTIVE

Describe the normative timing of pubertal events, cultural variations, and how being early or late influences emotional and social development.

A great deal of variability exists among individuals in the timing of the development of primary and secondary sex characteristics (refer back to Table 8.1). For example, among girls underarm hair could begin to appear as early as age 10 or as late as age 16; among boys,
the change in voice could begin as early as age 11 or as late as age 15. Overall, girls begin puberty 2 years earlier than boys, on average (Archibald et al., 2003).

The norms in Table 8.1 are for White American and British adolescents, who have been studied extensively in this area for many decades, but three studies demonstrate the variations that may exist in other groups. Among the Kikuyu, a culture in Kenya, boys show the first physical changes of puberty before their female peers, a reversal of the Western pattern (Worthman, 1987). In a study of Chinese girls, researchers found that pubic hair began to develop in most girls about 2 years after the development of breast buds, and only a few months before menarche, whereas in the Western pattern girls develop pubic hair much earlier (Lee et al., 1963). Also, in an American study (Herman-Giddens et al., 1997; Herman-Giddens et al., 2001), many African American girls were found to begin developing breast buds and pubic hair considerably earlier than White girls. At age 8, nearly 50% of the African American girls had begun to develop breasts or pubic hair or both, compared with just 15% of the White girls. This was true even though African American and White girls were similar in their ages of menarche. Similarly, pubic hair and genital development began earlier for African American boys than for White boys. Studies such as these indicate that it is important to investigate further cultural differences in the rates, timing, and order of pubertal events.

Given a similar cultural environment, variation in the order and timing of pubertal events among adolescents appears to be due to genetics. The more similar two people are genetically, the more similar they tend to be in the timing of their pubertal events, with identical twins the most similar of all (Ge et al., 2007; Marshall, 1978). However, when cultural environments vary, the timing of puberty also varies, as we shall see next.

**CULTURE AND THE TIMING OF PUBERTY** Culture includes a group’s technologies, and technologies include food production and medical care. The age at which puberty begins is strongly influenced by the extent to which food production provides for adequate nutrition and medical care provides for good health, throughout childhood (Alsaker & Flammer, 2006; Eveleth & Tanner, 1990).

Persuasive evidence for the influence of technologies on pubertal timing comes from historical records showing a steady decrease in the average age of menarche in Western countries from the mid-19th to the late-20th century, as shown in **Figure 8.2**. This downward pattern in the age of menarche, known as a **secular trend**, has occurred in every Western country for which records exist. Menarche is not a perfect indicator of the initiation of puberty—the first outward signs of puberty appear much earlier for most girls, and of course menarche does not apply to boys. However, menarche is a reasonably good indicator of when other events have begun in girls, and it is a reasonable assumption that if the downward trend in the age of puberty has occurred for girls, it has occurred for boys as well. Menarche is also the only aspect of pubertal development for which we have records going back so many decades. Scholars believe that the downward trend in the age of menarche is due to improvements in nutrition and medical care that have taken place during the past 150 years (Archibald et al., 2003; Bullough, 1981).

Further evidence of the role of nutrition and medical care in pubertal timing comes from cultural comparisons in the present. The average age of menarche is lowest in developed countries (currently about 12.5 years old), where adequacy of nutrition and medical care is highest (Eveleth & Tanner, 1990; McDowell et al., 2007; Susman & Rogol, 2004). In contrast, menarche takes place at an average age as high as 15 in developing countries, where nutrition may be limited and medical...
care is often rare or nonexistent (Eveleth & Tanner, 1990). In countries that have undergone rapid economic development in recent decades, such as China and South Korea, a corresponding decline in the average age of menarche has been recorded (Graham et al., 1999; Park et al., 1999).

**SOCIAL AND PERSONAL RESPONSES TO PUBERTAL TIMING**  
Think back for a moment to when you were passing through puberty. What were your most memorable pubertal events? How did you respond to those events—and how did the people around you respond? I loved to sing at that age, and I distinctly remember going from soprano at age 13—the only boy in a sea of girls—to 2nd bass by age 15. I reached puberty quite a bit later than most of my peers.

Social and personal responses to puberty are intertwined, because how adolescents respond to reaching puberty depends in part on how others respond to them. In developed countries, social and personal responses may depend on whether adolescents reach puberty relatively early or relatively late compared with their peers. When adolescents spend time in school on most days, surrounded by peers, they become acutely aware of how their maturation compares to others.

A great deal of research has been conducted on early versus late maturation among adolescents in the West, especially in the United States, extending back over a half century. The results are complex: They differ depending on gender, and the short-term effects of maturing early or late appear to differ from the long-term effects.

Research consistently shows that the effects of early maturation are usually negative for girls. Findings from a variety of Western countries concur that early-maturing girls are at risk for numerous problems, including depressed mood, negative body image, eating disorders, substance use, delinquency, aggressive behavior, school problems, and conflict with parents (Lynne et al., 2007; Mendle et al., 2007; Weichold et al., 2003; Westling et al., 2008). Early maturation is a problem for girls in part because it leads to a shorter and heavier appearance, which is a disadvantage in cultures that value slimness in females. It can also be troublesome because their early physical development draws the attention of older boys, who then introduce them to an older group of friends and to substance use, delinquency, and early sexual activity (Lynne et al., 2007; Weichold et al., 2003; Westling et al., 2008). Studies of the long-term effects of early maturation for girls are mixed, with some finding that the effects diminish by the late teens and others finding negative effects well into emerging adulthood (Graber et al., 2004; Posner, 2006; Weichold et al., 2003).

In contrast to girls, the effects of early maturation for boys are positive in some ways and negative in others. Early-maturing boys tend to have more favorable body images and higher popularity than other boys (Graber et al., 1997; Weichold et al., 2003). The earlier development of facial hair, lowered voice, and other secondary sex characteristics may make early-maturing boys more attractive to girls. Early-maturing boys may also have a long-term advantage. One study that followed early-maturing adolescent boys 40 years later found that they had achieved greater success in their careers and had higher marital satisfaction than later-maturing boys (Taga et al., 2006). However, not everything about being an early-maturing boy is favorable. Like their female counterparts, early-maturing boys tend to become involved earlier in delinquency, sex, and substance use (Westling et al., 2008; Wichstrom, 2001; Williams & Dunlop, 1999).

Late-maturing boys also show evidence of problems. Compared to boys who mature “on time,” late-maturing boys have higher rates of alcohol use and delinquency (Andersson & Magnusson, 1990; Williams & Dunlop, 1999). They also have lower grades in school (Weichold et al., 2003). There is some evidence that late-maturing boys have elevated levels of substance use and deviant behavior well into emerging adulthood (Biehl et al., 2007; Graber et al., 2004). Late-maturing girls have relatively few problems (Weichold et al., 2003).

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**APPLYING YOUR KNOWLEDGE**

In the light of the difficulties often experienced by early-maturing girls, can you think of anything families, communities, or schools could do to assist them?

Early maturing girls are at high risk for problems, in part because they attract the interest of older boys.
Cultural Responses: Puberty Rituals

LEARNING OBJECTIVE 8.3

Identify the main gender differences in puberty rituals worldwide.

Section 1 Physical Development

Does your culture have any formal way of marking the entrance from childhood to adolescence? Have you ever participated in or witnessed a bar mitzvah or bat mitzvah, the Catholic ritual of confirmation, or the quinceañera that takes place at age 15 for girls in Latin American cultures? These are examples of puberty rituals that have developed in many cultures to mark the departure from childhood and the entrance into adolescence. Puberty rituals are especially common in traditional cultures. Alice Schlegel and Herbert Barry (1991) analyzed information on adolescent development across 186 traditional cultures and reported that 68% had a puberty ritual for boys, 79% for girls (Schlegel & Barry, 1991).

For girls, menarche is the pubertal event that is most often marked by ritual (Schlegel & Barry, 1991). In fact, in many cultures menarche initiates a monthly ritual related to menstruation that lasts throughout a woman’s reproductive life. It is remarkably common for cultures to have strong beliefs concerning the power of menstrual blood. Such beliefs are not universal, but they have been common in all parts of the world, in a wide variety of cultures. Menstrual blood is often believed to present a danger to the growth and life of crops, to the health of livestock, to the likelihood of success among hunters, and to the health and well-being of other people, particularly the menstruating woman’s husband (Buckley & Gottlieb, 1988; Marvan & Trujillo, 2010). Consequently, the behavior and movement of menstruating women are often restricted in many domains, including food preparation and consumption, social activities, religious practices, bathing, school attendance, and sexual activities (Crumbley, 2006; Mensch et al., 1998). Menarche is often believed to possess special power, perhaps because it is a girl’s first menstruation, so the restrictions imposed may be even more elaborate and extensive (Yeung & Tang, 2005).

Traditional puberty rituals for males do not focus on a particular biological event comparable to menarche for females, but the rites for males nevertheless share some common characteristics. Typically, they require the young man to display courage, strength, and endurance (Gilmore, 1990). Daily life in traditional cultures often demands these capacities from young men in warfare, hunting, fishing, and other tasks. Thus the rituals could be interpreted as letting them know what will be required of them as adult men and testing whether they will be up to adulthood’s challenges. We’ll explore Samoan puberty rituals in the Cultural Focus: Coming of Age in Samoa feature on page 348.

In the past, rituals for boys were often violent, requiring boys to submit to and sometimes engage in bloodletting of various kinds. Among the Amhara of Ethiopia, boys were forced to take part in whipping contests in which they faced off and lacerated each other’s faces and bodies (LeVine, 1966). Among the Tewa people of New Mexico (also known as the Pueblo Indians), at some point between the ages of 12 and 15 boys were taken away from their homes, purified in ritual ceremonies, and then stripped naked and lashed on the back with a whip that drew blood and left permanent scars.

Although these rituals may sound cruel if you have grown up in the West, adults of these cultures believed that the rituals were necessary for boys to make the passage out of childhood toward manhood and to be ready to face life’s challenges. In all these cultures, however, the rituals have declined in frequency or disappeared altogether in recent decades as a consequence of globalization (Schlegel, 2010). Because traditional cultures are changing rapidly in response to globalization, the public circumcision for boys at puberty is still practiced in some African cultures. Here, three Masai adolescents from Tanzania celebrate their successful completion of the ritual.
traditional puberty rituals no longer seem relevant to the futures that young people anticipate. However, public circumcision for boys is still maintained as a puberty ritual in many African cultures (Vincent, 2008).

Female circumcision in adolescence, which involves cutting or altering the genitals, also remains common in Africa, with rates of over 70% in many countries and above 90% in Mali, Egypt, Somalia, and Djibouti (Baron & Denmark, 2006). The physical consequences of circumcision are much more severe for girls than for boys. Typically, a great deal of bleeding occurs, and the possibility of infection is high. Afterward many girls have chronic pain whenever they menstruate or urinate, and their risks of urinary infections and childbirth complications are heightened (Eldin, 2009). Critics have termed it female genital mutilation (FGM) and have waged an international campaign against it (Odeku et al., 2009). Nevertheless, it remains viewed in many African cultures as necessary in order for a young woman to be an acceptable marriage partner (Baron & Denmark, 2006).

THINKING CULTURALLY
Are there any rituals in Western cultures that are comparable to the puberty rituals in traditional cultures? Should people in Western cultures recognize and mark the attainment of puberty more than they do now? If so, why, and how?

CULTURAL FOCUS  Coming of Age in Samoa

One interesting example of a puberty ritual that both males and females participate in comes from the islands known as Samoa, in the Pacific Ocean near New Zealand. Samoa became known to many Americans early in the 20th century when the anthropologist Margaret Mead wrote about Samoan adolescence in Coming of Age in Samoa (1928). The book was widely read in the United States (and, in fact, all over the world). Many people were fascinated by the stark contrast between adolescence in Samoa and adolescence in the West.

Samoa differed from Western cultures in having a ritual to mark the beginning of adolescence. The traditional rite of passage into adolescence involved an elaborate process of tattooing sometime between ages 14 and 16 (Coté, 1994). The tattoos were made in elaborate geometric patterns and extended from the waist to the knees (see accompanying photo). Having the tattoos applied was painful and took a long time. For boys, the process usually took 2 to 3 months to complete, whereas the less elaborate tattoos for girls took 5 to 6 days. Even so, the young men took satisfaction in sharing the ordeal and in supporting one another. In spite of the pain, few young men or young women declined to take part in it, because being tattooed was considered essential to sexual attractiveness and to being accepted as a legitimate candidate for full adult status.

This tattooing ritual has been profoundly affected by the globalization of adolescence. In the past 100 years, Samoan culture has changed a great deal (Coté, 1994; McDade & Worthman, 2004). Christian missionaries arrived in the early 20th century and sought to stamp out a variety of native practices they considered immoral, including the ritual of tattooing. The rise of secondary education and the widening of economic opportunities for Samoans who immigrated to nearby New Zealand undermined the traditional economy and caused the tattooing ritual to be viewed as irrelevant or even shamefully “primitive” by some Samoans. By now, most Samoans have abandoned their cooperative, traditional ways for participation in the wage labor of the global economy.

Recently, however, tattooing for young men has undergone a revival. Currently, the majority of young men get tattoos in their teens to demonstrate their pride in the traditional ways of their culture, as part of an explicit attempt to resist the total absorption of their indigenous culture into the global culture (Coté, 1994).
WHAT HAVE YOU LEARNED?

1. How does the balance of estradiol and testosterone change for boys and girls during puberty?
2. What is the difference between primary and secondary sex characteristics?
3. How does the brain change during adolescence?
4. How do researchers explain the downward trend in the age of menarche?
5. What risks do early-maturing girls face? Do early-maturing boys face similar risks?
6. Why were puberty rituals for boys violent in some traditional cultures?

Health Issues in Adolescence

Like middle childhood, adolescence is a life stage when physical health is generally good. The immune system functions more effectively in middle childhood and adolescence than earlier in development, so susceptibility to infectious diseases is lower. Diseases that will become more common later in adulthood, such as heart disease and cancer, are very rare during adolescence. However, unlike middle childhood, adolescence is a time when problems arise not from physical functioning but from behavior. Two common problems of adolescence are eating disorders and substance use. (Automobile accidents are the number one cause of mortality in adolescence, but this topic will be discussed in Chapter 9.)

Eating Disorders

Describe the prevalence, symptoms, and treatment of eating disorders.

At 102 pounds I thought I would be happy. But when I lost another two pounds, I was even happier. By the time I was down to 98 pounds, I stopped getting my period . . . Also, my hair, which was normally healthy and shiny, became very brittle and dull, and it started falling out . . . [My skin] took on a yellowish tone that looked sick, but I didn’t care. I thought I looked better than I ever had in my whole life.

Alicia, age 17 (in Bell, 1998, p. 191)

For many adolescents, changes in the way they think about their bodies are accompanied by changes in the way they think about food. Girls, in particular, pay more attention to the food they eat once they reach adolescence, and worry more about eating too much and getting fat (Nichter, 2001). Sixty percent of American adolescent girls and 30% of boys believe they weigh too much, even though only 15% of girls and 16% of boys are actually overweight by medical standards (Centers for Disease Control and Prevention [CDC], 2008). This dissatisfaction exists far more often among girls than among boys (Vincent & McCabe, 2000). Boys are much less likely to believe they are overweight, and much more likely to be satisfied with their bodies (Walcott et al., 2003).

These perceptions can lead adolescents to exhibit eating disordered behavior, including fasting for 24 hours or more, use of diet products, purging, and use of laxatives to control weight. According to a national U.S. study, about 20% of American adolescent girls and 10% of boys in Grades 9–12 report engaging in eating disordered behavior in the past 30 days (CDC, 2008). Similar findings have been reported in other Western countries. In a national
Young women with anorexia nervosa often see themselves as too fat even when they are so thin their lives are at risk.

The two most common eating disorders are **anorexia nervosa** (intentional self-starvation) and **bulimia** (binge eating combined with purging [intentional vomiting]). About 0.5% of American adolescents have anorexia nervosa and about 3% have bulimia (McKnight Investigators, 2003). Nearly all (90%) of eating disorders occur among females. Most cases of eating disorders have their onset among females in their teens and early twenties (Reijonen et al., 2003).

Anorexia is characterized by four primary symptoms:

1. inability to maintain body weight at least 85% of normal for height;
2. fear of weight gain;
3. lack of menstruation; and
4. distorted body image.

One of the most striking symptoms of anorexia is the cognitive distortion of body image (Bowers et al., 2003; Striegel-Moore & Franko, 2006). Young women with anorexia sincerely believe themselves to be too fat, even when they have become so thin that their lives are threatened. Standing in front of a mirror with them and pointing out how emaciated they look does no good—the person with anorexia looks in the mirror and sees a fat person, no matter how thin she is.

Like those with anorexia, persons with bulimia have strong fears that their bodies will become big and fat (Bowers et al., 2003). They engage in binge eating, which means eating a large amount of food in a short time. Then they purge themselves, that is, they use laxatives or induce vomiting to get rid of the food they have just eaten during a binge episode. People with bulimia often suffer damage to their teeth from repeated vomiting (because stomach acids erode tooth enamel). Unlike those with anorexia, persons with bulimia typically maintain a normal weight, because they have more or less normal eating patterns in between their episodes of bingeing and purging (Striegel-Moore & Franko, 2006). Another difference from anorexia is that persons with bulimia do not regard their eating patterns as normal. They view themselves as having a problem and often hate themselves in the aftermath of their binge episodes.

Self-starvation among young women has a long history in Western countries, as described in the Historical Focus: From Fasting Saints to Anorexic Girls feature. Today, eating disorders are most common in cultures that emphasize slimness as part of the female physical ideal, especially Western countries (Gowen et al., 1999; Walcott et al., 2003). Presented with a cultural ideal that portrays the ideal female body as slim, at a time when their bodies are biologically tending to become less slim and more rounded, many adolescent girls feel distressed at the changes taking place in their body shape, and they attempt to resist or at least modify those changes. Young women who have an eating disorder are at higher risk for other internalizing disorders, such as depression and anxiety disorders (Johnson et al., 2002; Striegel-Moore et al., 2003; Swinbourne & Touyz, 2007). Eating disordered behavior is also related to substance use, especially cigarette smoking and binge drinking (Pisetsky et al., 2008). Within the United States, eating disorders are more common among White women than among women of other ethnic groups, probably due to a greater cultural value on female slimness.

Although mainly a Western problem, eating disorders are increasing in parts of the world that are becoming more Westernized. For example, on the island nation of Fiji, traditionally the ideal body type for women was round and curvy. However, television was first introduced in 1995, mostly with programming from the United States and other Western countries, and subsequently the incidence of eating disorders rose substantially (Becker et al., 2007). Interviews with adolescent girls on Fiji showed that they admired the Western

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**anorexia nervosa** eating disorder characterized by intentional self-starvation

**bulimia** eating disorder characterized by episodes of binge eating followed by purging (self-induced vomiting)
television characters and wanted to look like them, and that this goal in turn led to higher incidence of negative body image, preoccupation with weight, and purging behavior to control weight (Becker, 2004).

The success of treating anorexia and bulimia through hospitalization, medication, or psychotherapy is limited (Bulik et al., 2007; Grilo & Mitchell, 2010). About two-thirds of people treated for anorexia in hospital programs improve, but one-third remain chronically ill despite treatment (Steinhausen et al., 2003). Similarly, although treatments for bulimia are successful in about 50% of cases, there are repeated relapses in the other 50% of cases, and recovery is often slow (Garner & Garfinkel, 1997; Oltmanns & Emery, 2006).

Adolescents and emerging adults with a history of eating disorders often continue to show significant impairments in mental and physical health, self-image, and social functioning even after their eating disorder has faded (Berkman et al., 2007; Striegel-Moore et al., 2003). About 10% of those with anorexia eventually die from starvation or from physical problems caused by their weight loss, one of the highest mortality rates of any psychiatric disorder (Polivy et al., 2003; Striegel-Moore & Franko, 2006).

THINKING CULTURALLY

Do advertisers who feature skinny female models bear some responsibility for anorexia rates in Western countries, or does advertising simply reflect the cultural emphasis on female slimness?

APPLYING YOUR KNOWLEDGE

...as a Nurse

15-year-old Ellen comes to your clinic for a yearly check-up. To your surprise, she weighs 95 pounds, down 15 pounds since her last visit. Her hair is thin and breaking, and her skin looks sallow. What would you recommend for Ellen?

HISTORICAL FOCUS

From Fasting Saints to Anorexic Girls

Anorexia nervosa is generally viewed by scholars to be a modern disorder, resulting primarily from current cultural pressures for young women to be thin. However, the phenomenon of young women voluntarily, willfully reducing their food intake, even to the point of self-starvation, has a surprisingly long history in Western cultures, extending back many centuries. An examination of that history, with its illuminating similarities to and differences from present-day anorexia, is provided by Dutch scholars Walter Vandereycken and Ron Van Deth (1994) in their book From Fasting Saints to Anorexic Girls: A History of Self-Starvation.

Fasting, involving partial or total abstinence from food, has long been a part of both Eastern and Western religions. It was only from the 12th century onward that religious fasting in the West became associated mainly with young women. Why this happened when it did is not entirely clear, but it appears to be linked to females’ being allowed greater participation in church life. For both males and females during the medieval period, religious faith was demonstrated in ways that seem extreme from the modern perspective. Men would often demonstrate their piety by such practices as self-flagellation; piercing their tongues, cheeks, or other body parts with iron pins; or sleeping on beds of thorns or iron points. For women, in contrast, extreme fasting became the characteristic path to holiness.

Young women who engaged in extreme fasting often gained great fame and were regarded by their contemporaries with reverence and awe. For example, in the 13th century an English girl became known far and wide as “Joan the Meatless” for reputedly abstaining from all food and drink except on Sundays, when she fed only on the morsel of bread distributed as part of the communion ritual. Many of these young women became anointed as saints by the Church, although official church policy discouraged extreme fasting as detrimental to physical and mental well-being. In the 16th and 17th centuries, Catholic officials sharply tightened the rules for proving fasting “miracles,” in response to exposed cases of fraud as well as concern over the health of girls seeking sainthood, and extreme fasting lost its religious allure.

In place of extreme religious fasting, extreme fasting as a commercial spectacle arose. From the 16th through the 19th century, young women who had supposedly fasted for months or even years were exhibited at fairs. When these “miraculous maidens” were put to the test in conditions where they could be monitored closely, some starved to death trying to prove their legitimacy, whereas others were exposed as frauds, such as the young woman who was found to have sewn a substantial quantity of gingerbread into the hem of her dress!

During this same period, cases of self-starvation received increasing attention from physicians. The first medical description of
anorexia nervosa was made by the British physician Richard Morton in 1689. All of the characteristics of Morton’s clinical description of the disorder remain part of the clinical diagnosis of anorexia nervosa in the present, over 3 centuries later:

1. Occurs primarily in females in their teens and twenties;
2. Characterized by striking emaciation as a consequence of markedly decreased intake of food;
3. Often accompanied by constipation and amenorrhea (absence of menstruation);
4. Affected persons usually lack insight into the illness (that is, they do not believe anything is wrong with them); consequently, treatment is resisted;
5. No physical cause is responsible for the symptoms; they are psychological in origin.

Although these symptoms still define anorexia nervosa, it was only from the early 19th century onward that the disorder became motivated by a desire to conform to cultural standards of female attractiveness. In the early 19th century, the standard of beauty for young women in the West became the “hourglass figure,” characterized by a substantial bosom and hips and the slimmest waist possible. In pursuit of this figure, young women had themselves laced tightly into corsets (often made of whalebone or some other unforgiving material), ignoring physicians who warned against the unhealthiness of the fashion. By the early 20th century, corsets had gone out of fashion, but in their place came an ideal of the female form as slim all over, not just the waist but the bosom and hips as well.

That this thin ideal motivated self-starvation among girls is evident from clinical reports of the time, for example, by this late-19th-century physician who, while examining an anorexic patient, “found that she wore on her skin, fashioned very tight around her waist, a rose-colored ribbon. He obtained the following confidence: the ribbon was a measure which the waist was not to exceed. ‘I prefer dying of hunger to becoming as big as mamma’” (Vandereycken & Van Deth, 1994, p. 171).

Although fasting saints may seem a long way from anorexic girls, Vandereycken and Van Deth (1994) point out the striking similarities. In both cases the self-starvers were striving for an elusive perfection—the fasting girls for sainthood and the anorexic girls for the feminine ideal, a kind of secular sainthood—and typically their perfectionism extended into all aspects of their lives, not just their eating habits. In both cases, their abnormal eating patterns were often evident in childhood before developing into a fixed pattern in adolescence. Perhaps most important, in both cases their self-starvation was often a way of asserting power over not only themselves but others. By abstaining from food, they were able to establish an area over which they would have complete control, no matter what the threats or pleas from clergy, friends, or family.

### Substance Use

#### 8.5 LEARNING OBJECTIVE

Classify adolescent substance use into four categories.

Rates of substance use in adolescence vary across Western countries. A study by the World Health Organization (WHO) investigated adolescents’ use of alcohol and cigarettes in 41 Western countries (WHO, 2008). A summary of the results is shown in Figure 8.3.

Rates of cigarette smoking are lower among adolescents in the United States and Canada than in Europe, most likely because governments in the United States and Canada have waged large-scale public health campaigns against smoking, whereas European countries have not. Cigarette smoking among young people is of particular concern, because in the long run smoking is the source of more illness and mortality than all illegal drugs combined, and because the majority of persons who smoke begin in their early teens (Cummings, 2002).

*Rates of smoking in adolescence are higher in Europe than in the United States and Canada. Here, young adolescents in Germany light up.*
Young people use substances for a variety of purposes, which can be classified as experimental, social, medicinal, and addictive (Weiner, 1992). Young people who take part in experimental substance use try a substance once or perhaps a few times out of curiosity and then do not use it again. Social substance use involves the use of substances during social activities with one or more friends. Parties and dances are common settings for social substance use in adolescence and emerging adulthood. Medicinal substance use is undertaken to relieve an unpleasant emotional state such as sadness, anxiety, stress, or loneliness (Woodward & Fergusson, 2001). Using substances for these purposes has been described as a kind of self-medication (Reimuller et al., 2011). Young people who use substances for self-medication tend to use them more frequently than those whose purposes are mainly social or experimental. Finally, addictive substance use takes place when a person has come to depend on regular use of substances to feel good physically or psychologically. People who are addicted to a substance experience withdrawal symptoms such as high anxiety and tremors when they stop taking the substance (Reidel et al., 2003). Addictive substance use involves the most regular and frequent substance use of the four categories described here.
All substance use in adolescence and emerging adulthood is considered “problem behavior” in the sense that it is something that adults generally view as a problem if young people engage in it. However, the four categories described here indicate that young people may use substances in very different ways, with very different implications for their development. We’ll explore substance use and abuse in further detail when we cover emerging adulthood in Chapter 9.

WHAT HAVE YOU LEARNED?

1. In what ways is anorexia similar to and different from bulimia?
2. Why do eating disorders occur more often in Western cultures than in developing countries?
3. What are some other disorders and problems associated with having an eating disorder?
4. Why does Europe have higher rates of adolescent cigarette smoking than the United States or Canada?
5. How would you classify the substance use of an adolescent who drinks only at parties or other social gatherings?

Section 1 VIDEO GUIDE Body Image: Part 1 (Length: 4:10)

In this video two American females discuss body image, eating disorders, and the influence of the media. An American mother is also interviewed.

1. Do you feel that the two girls interviewed in this video represent the average views of U.S. female teens?
2. What impact does the media really have on adolescent females?
3. The mother interviewed in this video states that there are not many good role models for young girls today. Do you agree or disagree? Can you list at least two people who would be a good role model for a young female of today?
Piaget’s Theory of Formal Operations

According to Piaget (1972), the stage of formal operations begins at about age 11 and reaches completion somewhere between ages 15 and 20. Children in concrete operations can perform simple tasks that require logical and systematic thinking, but formal operations allows adolescents to reason about complex tasks and problems involving multiple variables. It also includes the development of abstract thinking, which allows adolescents to think about abstract ideas such as justice and time and gives them the ability to imagine a wide range of possible solutions to a problem, even if they have had no direct experience with the problem.

Hypothetical-Deductive Reasoning

Explain the features of hypothetical-deductive reasoning and give an example of how it is assessed.

The stage of formal operations involves the development of hypothetical-deductive reasoning, which is the ability to think scientifically and apply the rigor of the scientific method to cognitive tasks. To demonstrate this new ability, let us look at one of the tasks Piaget used to test whether a child has progressed from concrete to formal operations, the pendulum problem (Inhelder & Piaget, 1958). In this task, illustrated in Figure 8.4 on page 356, children and adolescents are shown a pendulum (consisting of a weight hanging from a string and then set in motion) and asked to try to figure out what determines the speed at which the pendulum sways from side to side. Is it the heaviness of the weight? The length of the string? The height from which the weight is dropped? The force with which it is dropped? They are given various weights and various lengths of string to use in their deliberations.

Children in concrete operations tend to approach the problem with random attempts, often changing more than one variable at a time. They may try the heaviest weight on the longest string dropped from medium height with medium force, then...
a medium weight on the smallest string dropped from medium height with lesser force. When the speed of the pendulum changes, it remains difficult for them to say what caused the change, because they altered more than one variable at a time. If they happen to arrive at the right answer—it’s the length of the string—they find it difficult to explain why. This is crucial, for Piaget. Cognitive advances at each stage are reflected not just in the answers children devise for problems, but in their explanations for how they arrived at the solution.

It is only with formal operations that we become able to find the right answer to a problem like this and to understand and explain why it is the right answer. The formal operational thinker approaches the pendulum problem by utilizing the kind of hypothetical thinking involved in a scientific experiment. “Let’s see, it could be weight; let me try changing the weight while keeping everything else the same. No, that’s not it; same speed. Maybe it’s length; if I change the length while keeping everything else the same, that seems to make a difference; it goes faster with a shorter string. But let me try height, too; no change; then force; no change there, either. So it’s length, and only length, that makes the difference.”

Thus, the formal operational thinker changes one variable while holding the others constant and tests the different possibilities systematically. Through this process the formal operational thinker arrives at an answer that not only is correct but can be defended and explained. The capacity for this kind of thinking is at the heart of Piaget’s concept of formal operations. In Piaget’s research, as well as the research of many others, adolescents perform significantly better than preadolescent children at the pendulum problem and similar tasks (Elkind, 2001; Lee & Freire, 2003).

Critiques of Piaget’s Theory of Formal Operations

Formal operations is the part of Piaget’s theory that has been critiqued the most and that has been found to require the most modifications (Keating, 2004; Lee & Freire, 2003). The limitations of Piaget’s theory of formal operations fall into two related categories: individual differences in the attainment of formal operations, and the cultural basis of adolescent cognitive development.

INDIVIDUAL DIFFERENCES IN FORMAL OPERATIONS As noted in Chapter 4, Piaget asserted that people develop through the same stages at about the same ages (Inhelder & Piaget, 1958). Every 8-year-old is in the stage of concrete operations; every 15-year-old should be a formal operational thinker. Furthermore, Piaget’s idea of stages means that 15-year-olds should reason in formal operations in all aspects of their lives, because the same mental structure should be applied no matter what the nature of the problem (Keating, 2004).

Abundant research indicates decisively that these claims were inaccurate, especially for formal operations (Kuhn, 2008; Lee & Freire, 2003). In adolescence and even in adulthood, a great range of individual differences exists in the extent to which people use formal operations. Some adolescents and adults use formal operations over a wide range of situations; others use it selectively; still others appear to use it rarely or not at all. On any given Piagetian task of formal operations, the success rate among late adolescents and adults is only 40–60%, depending on the task and on individual factors such as educational background (Keating, 2004; Lawson & Wollman, 2003). Thus even in emerging adulthood and beyond, a large proportion of people use formal operations either inconsistently or not at all. Furthermore, even people who demonstrate the capacity for formal operations tend to use it selectively, for problems and situations in which they have the most experience and
knowledge (Flavell et al., 1993). For example, an adolescent with experience working on cars may find it easy to apply principles of formal operations in that area but have difficulty performing classroom tasks that require formal operations. Adolescents who have had courses in math and science are more likely than other adolescents to exhibit formal operational thought (Keating, 2004; Lawson & Wollman, 2003).

**CULTURAL VARIATIONS IN FORMAL OPERATIONS** Questions have also been raised about the extent to which cultures differ in whether their members reach formal operations at all. By the early 1970s numerous studies indicated that cultures varied widely in the prevalence with which their members displayed an understanding of formal operations on the kinds of tasks that Piaget and others had used to measure it, and many researchers concluded that in some cultures formal operational thought does not develop, particularly in cultures that do not have formal schooling that includes training in the scientific method (Cole, 1996). More recent research suggests that people in many cultures use reasoning that could be called formal operational, provided that they are using materials and tasks familiar to them and relevant to their daily lives (Matusov, 2000). There is widespread support among scholars for the view that the stage of formal operations constitutes a universal human potential but it takes different forms across cultures depending on the kinds of problems people encounter in their daily lives (Cole, 1996).

For example, adolescent boys in the Inuit culture of the Canadian Arctic traditionally learn how to hunt seals (Condon, 1990; Grigorenko et al., 2004). To become successful, a boy would have to think through the components involved in a hunt and test his knowledge of hunting through experience. If he were unsuccessful on a particular outing, he would have to ask himself why. Was it because of the location he chose? The equipment he took along? The tracking method he used? Or were there other causes? On the next hunt he might alter one or more of these factors to see if his success improved. This would be hypothetical-deductive reasoning, altering and testing different variables to arrive at the solution to a problem. However, in every culture there is likely to be considerable variation in the extent to which adolescents and adults display formal operational thought, from persons who display it in a wide variety of circumstances to persons who display it little or not at all.

**WHAT HAVE YOU LEARNED?**

1. How would a child in the concrete operations stage approach the pendulum problem differently from a formal operational thinker?
2. Do adolescents use formal operations consistently in all aspects of their lives? How does the answer to this question impact Piaget’s theory of stages?
3. Can the stage of formal operations be reached in all cultures? Why or why not?
4. How might someone in a traditional culture use hypothetical-deductive reasoning in his or her daily life?

Other Changes in Adolescent Thinking

Piaget’s theory of formal operations has inspired a great deal of research on adolescents’ cognitive development. However, information processing research shows other types of gains in cognitive development from childhood to adolescence. Social cognition develops as well and takes two distinctly adolescent forms.
**LEARNING OBJECTIVE 8.8**

Divided attention: ability to focus on more than one task at a time

**APPLYING YOUR KNOWLEDGE**

Among the courses you have taken in your college education, for which have you found information easiest to remember, and for which has it been hardest? In what ways do the memory concepts presented here help explain why some course content is easier for you to retain?

**LEARNING OBJECTIVE 8.9**

Define the imaginary audience and the personal fable and explain how they reflect egocentrism in adolescence.

**Information Processing: Selective Attention and Metamemory**

As noted in previous chapters, attention and memory are the two keys to cognition in the information processing approach, and in both areas distinctive forms of cognitive development sprout in adolescence. Adolescents become more proficient at both selective and divided attention, and they become better at using memory strategies.

Are you able to read a textbook while someone else in the same room is watching television? Are you able to have a conversation at a party where music and other conversations are blaring loudly all around you? These are tasks that require **selective attention**, the ability to focus on relevant information while screening out information that is irrelevant (refer back to Chapter 7, page 296; Hahn et al., 2009). Adolescents tend to be better than younger children at tasks that require selective attention, and emerging adults are generally better than adolescents (Manis et al., 1980; Huang-Pollock et al., 2002). Adolescents are also more adept than younger children at tasks that require **divided attention**—reading a book and listening to music at the same time, for example—but even for adolescents, divided attention may result in less efficient learning than if attention were focused entirely on one thing. One study found that watching TV interfered with adolescents’ homework performance but listening to music did not (Pool et al., 2003).

Memory also improves in adolescence, especially long-term memory. Adolescents are more likely than younger children to use **mnemonic devices** (memory strategies; refer to Chapter 7, page 298), such as organizing information into coherent patterns (Schneider, 2010). Think of what you do, for example, when you sit down to read a textbook chapter. You probably have various organizational strategies you have developed over the years (if you do not, you would be wise to develop some), such as writing a chapter outline, making notes in the margins, organizing information into categories, underlining key passages, and so on. By planning your reading in these ways, you remember (and learn) more effectively.

Another way long-term memory improves in adolescence is that adolescents have more experience and more knowledge than children do, and these advantages enhance the effectiveness of long-term memory (Keating, 1990, 2004). Having more knowledge helps you learn new information and store it in long-term memory. This is a key difference between short-term and long-term memory. The capacity of short-term memory is limited, so the more information you have in there already, the less effectively you can add new information to it. With long-term memory, however, the capacity is essentially unlimited, and the more you know the easier it is to learn new information because you can relate it to what you already know. For example, if you have already taken an introductory psychology course and learned basic facts and terms of the field, it will be easier for you to remember the information you learn in subsequent psychology courses, because you can connect the new information to what is already in your long-term memory.

**Social Cognition: The Imaginary Audience and the Personal Fable**

During early adolescence I believed/pretended that a movie crew was following me around and taping everything I did. They personally picked me because I was the most popular girl in school and had the most interesting life. Or so I thought!

Deena, age 21 (Arnett, unpublished data)
When I was in high school a group of us would go to the cliffs at the lake and “blind jump” at night. Usually everyone had been drinking. To add an element of danger, about 60 feet or so down the cliff there was a shelf that stuck out about 6 feet that you had to avoid. There was one guy we knew, 18 years old, who tripped when he was jumping, landed on the shelf, broke his neck and died. We all thought he must have done something stupid and that it couldn’t happen to us.

Brian, age 22 (Arnett, unpublished data)

Cognitive development in adolescence includes the development of metacognition, which is the capacity to think about thinking. This advance includes the ability to think about not only your own thoughts but also the thoughts of others. Adolescents are generally better at metacognition than younger children are. However, when their metacognitive abilities first develop, adolescents may have difficulty distinguishing their thinking about their own thoughts from their thinking about the thoughts of others, resulting in a distinctive kind of adolescent egocentrism. Ideas about adolescent egocentrism were first put forward by Piaget (1967) and were developed further by David Elkind (1967, 1985; Alberts et al., 2007). According to Elkind, adolescent egocentrism has two aspects, the imaginary audience and the personal fable.

**THE IMAGINARY AUDIENCE** The imaginary audience results from adolescents’ limited capacity to distinguish between their thinking about themselves and their thinking about the thoughts of others. Because they think about themselves so much and are so acutely aware of how they might appear to others, they conclude that others must also be thinking about them a great deal. Because they exaggerate the extent to which others think about them, they imagine a rapt audience for their appearance and behavior.

The imaginary audience makes adolescents much more self-conscious than they were in middle childhood. Do you remember waking up in seventh or eighth grade with a pimple on your forehead, or discovering a mustard stain on your pants and wondering how long it had been there, or saying something in class that made everybody laugh (even though you didn’t intend it to be funny)? Of course, experiences like these are not much fun as an adult, either. But they tend to be worse in adolescence, because the imaginary audience makes it seem as though “everybody” knows about your humiliation and will remember it for a long, long time.

The imaginary audience is not something that simply disappears when adolescence ends. Adults are egocentric, too, to some extent. Adults, too, imagine (and sometimes exaggerate) an audience for their behavior. It is just that this tendency is stronger in adolescence, when the capacity for distinguishing between our own perspective and the perspective of others is less developed (Alberts et al., 2007).

**THE PERSONAL FABLE** According to Elkind (1967, 1985), the belief in an imaginary audience that is highly conscious of how you look and act leads to the belief that there must be something special, something unique, about you—otherwise, why would others be so preoccupied with you? Adolescents’ belief in the uniqueness of their personal experiences and their personal destiny is known as the personal fable.

The personal fable can be the source of adolescent anguish, when it makes them feel that “no one understands me” because no one can share their unique experience (Elkind, 1978). It can be the source of high hopes, too, as adolescents imagine their unique personal destiny leading to the fulfillment of their dreams to be a rock musician, a professional athlete, a famous actor, or simply successful in the field of their choice. It can also contribute to risky behavior by adolescents whose sense of uniqueness leads them to believe that adverse consequences from behavior such as unprotected sex or drunk

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**APPLYING YOUR KNOWLEDGE**

**. . . as a Health Educator**

How might you incorporate your knowledge of adolescents’ risk-taking and personal fables in your work?

**APPLYING YOUR KNOWLEDGE**

Do you think most people your age have outgrown adolescent egocentrism? Give examples of the imaginary audience and the personal fable that you have witnessed among your peers or experienced yourself.
driving “won’t happen to me.” According to research by Elkind and his colleagues, personal fable scores increase from early to midadolescence and are correlated with participation in risk behaviors (Alberts et al., 2007).

Like the imaginary audience, the personal fable diminishes with age, but it never disappears entirely for most of us. Even most adults like to think there is something special, if not unique, about their personal experiences and their personal destiny. But the personal fable tends to be stronger in adolescence than at later ages, because with age our experiences and conversations with others lead us to an awareness that our thoughts and feelings are not as exceptional as we once might have believed (Elkind, 1978).

**Culture and Cognition**

**LEARNING OBJECTIVE**

**Produce an example of the zone of proximal development and scaffolding involving adolescents.**

As noted in previous chapters, two of Vygotsky’s most influential ideas are scaffolding and the zone of proximal development (see Chapter 5, page 190). The zone of proximal development is the difference between skills or tasks a person can accomplish alone and those they are capable of doing if guided by a more experienced person. Scaffolding refers to the degree of assistance provided in the zone of proximal development. In Vygotsky’s view, learning always takes place via a social process, through the interactions between someone who possesses knowledge and someone who is in the process of obtaining it.

Scaffolding and the zone of proximal development continue to apply during adolescence, when the skills necessary for adult work are being learned. An example can be found in research on weaving skills among male adolescents in the Dioula culture in Ivory Coast, on the western coast of Africa (Tanon, 1994). An important part of the Dioula economy is making and selling large handmade cloths with elaborate designs. The training of weavers begins when they are age 10–12 and continues for several years. Boys grow up watching their fathers weave, but it is in early adolescence that they begin learning weaving skills themselves. Teaching takes place through scaffolding: The boy attempts a simple weaving pattern, the father corrects his mistakes, the boy tries again. When the boy gets it right, the father gives him a more complex pattern, thus raising the upper boundary of the zone of proximal development so that the boy continues to be challenged and his skills continue to improve. As the boy becomes more competent at weaving, the scaffolding provided by the father diminishes. Eventually the boy gets his own loom, but he continues to consult with his father for several years before he can weave entirely by himself.

As this example illustrates, learning in adolescence is always a cultural process, in which adolescents are acquiring the skills and knowledge that will be useful in their culture. Increasingly, the skills and knowledge of the global economy involve the ability to use information technology such as computers and the Internet. In most countries, the highest paying jobs require these kinds of skills. However, as the example of the Dioula illustrates, for the majority of the world’s adolescents the most necessary skills and knowledge are those involved in making things the family can use or that other people will want to buy (Larson et al., 2010).
**WHAT HAVE YOU LEARNED?**

1. How do you use selective attention and divided attention in your daily life?
2. How does adolescents’ experience and knowledge contribute to their long-term memory?
3. Why are adolescents often more self-conscious than they were as children?
4. How does the personal fable contribute to risky behavior in adolescence?
5. How is learning in adolescence a cultural process?

**Section 2  VIDEO GUIDE  Imaginary Audience (Length: 0:30)**

In this video, an adolescent girl provides a brief personal example of the imaginary audience.

1. Explain how this adolescent’s story fits with the concept of an imaginary audience.

2. How is the imaginary audience connected to the concept of a personal fable?

3. The imaginary audience doesn’t entirely disappear when adolescence ends. Were their times in your own adolescence when you felt others were acutely aware of your appearance and behavior? How have these feelings changed as you have gotten older?

**Watch the Video Imaginary Audience at MyDevelopmentLab**
SECTION 3  EMOTIONAL AND SOCIAL DEVELOPMENT

LEARNING OBJECTIVES

8.11 Summarize the results of the ESM studies with respect to adolescent emotionality.
8.12 Describe how self-understanding, self-concept, and self-esteem change during adolescence.
8.13 Compare and contrast the cultural patterns in gender expectations for girls and boys in adolescence.
8.14 Discriminate between Kohlberg’s theory of moral development and Jensen’s worldviews theory.
8.15 Describe the cultural variations in religious beliefs during adolescence as well as the sources and outcomes of religiosity within cultures.
8.16 Summarize the cultural variations in adolescents’ relationships with parents, siblings, and extended family.
8.17 Describe cultural variations in adolescents’ relationships with friends, and characterize their interactions with peers.
8.18 Identify cultural variations in adolescent love and sexuality, including variations in adolescent pregnancy and contraceptive use.
8.19 Compare and contrast the secondary education systems and academic performance of developed countries and developing countries.
8.20 Summarize the typical forms of adolescent work in developing countries and developed countries, and name the features of apprenticeships in Europe.
8.21 Explain the function of media use in adolescents’ lives and apply the Media Practice Model to the playing of electronic games.
8.22 Summarize the explanations for why age and crime are so strongly correlated, and describe the multisystemic approach to combating delinquency.
8.23 Identify the different types and rates of depression and summarize the most effective treatments.
8.24 Define resilience and name the protective factors that are related to resilience in adolescence.

EMOTIONAL AND SELF-DEVELOPMENT

Emotional and Self-Development

Adolescence has long been regarded as a time of emotional volatility, and here we’ll look at the history of views on this topic as well as current research. Issues of self-concept and self-esteem are also at the forefront of adolescent development, partly due to advances in cognitive development. Gender issues are prominent as well, because adolescence involves reaching sexual maturity.

Emotionality in Adolescence: Storm and Stress?

One of the most ancient and enduring observations of adolescence is that it is a time of heightened emotions (Arnett, 1999). Over 2,000 years ago, the Greek philosopher Aristotle observed that youth “are heated by Nature as drunken men by wine.” About 250 years ago, the French philosopher Jean-Jacques Rousseau made a similar observation: “As the roaring of the waves precedes the tempest, so the murmur of rising passions announces
the tumultuous change” of puberty and adolescence. Around the same time that Rousseau was writing, a type of German literature was developing that became known as “sturm und drang” literature—German for “storm and stress.” In these stories, young people in their teens and early twenties experienced extreme emotions of angst, sadness, and romantic passion.

What does contemporary research tell us about the validity of these historical and popular views of adolescent emotionality? Probably the best source of data on this question is the research using the Experience Sampling Method (ESM), which involves having people wear wristwatch beepers and then beeping them randomly during the day so that they can record their thoughts, feelings, and behavior (refer back to Chapter 7, page 310) (Csikszentmihalyi & Larson, 1984; Schneider, 2006). ESM studies have also been conducted on younger children and adults, so if we compare the patterns of emotions reported by the different groups, we can get a good sense of whether adolescence is a stage of more extremes of emotions than middle childhood or adulthood.

The results indicate that adolescence in the United States is often a time of emotional volatility (Larson et al., 1980; Larson & Richards, 1994). American adolescents report feeling “self-conscious” and “embarrassed” 2 to 3 times more often than their parents and are also more likely than their parents to feel awkward, lonely, nervous, and ignored. Adolescents are also moodier when compared to younger children. Comparing preadolescent fifth graders to adolescent eighth graders, Reed Larson and Maryse Richards (1994) describe the emotional “fall from grace” that occurs during that time, as the proportion of time experienced as “very happy” declines by 50%, and similar declines take place in reports of feeling “great,” “proud,” and “in control.” The result is an overall “deflation of childhood happiness” (p. 85) as childhood ends and adolescence begins.

Although adolescent emotionality is often attributed to “raging hormones” or some other biological source, most scholars view the emotional changes of adolescence as due to cognitive and environmental factors more than to biological changes (Buchanan et al., 1992; Susman & Rogol, 2004). According to Larson and Richards (1994), adolescents’ newly developed capacities for abstract reasoning “allow them to see beneath the surface of situations and envision hidden and more long-lasting threats to their well-being” (p. 86). Larson and Richards (1994) also argue that experiencing multiple life changes and personal transitions during adolescence contributes to emotional volatility; within a short time adolescents may encounter the onset of puberty, a change of schools, and their first romantic and sexual experiences. Nevertheless, Larson and Richards (1994) emphasize that it is not just that adolescents experience potentially stressful events but how they experience and interpret them that underlies their emotional volatility. Even in response to the same or similar events, adolescents report more extreme and negative moods than younger children or adults.

How do emotional states change during the course of adolescence? Larson and Richards assessed their original ESM sample of fifth–eighth graders 4 years later, in ninth–twelfth grades (Larson et al., 2002). As Figure 8.5 shows, they found that the decline in average emotional states continued through ninth and tenth grades, then leveled out. Also, the older adolescents were less volatile in their emotions, that is, the changes in their emotions from one time to the next were less extreme.

What about other cultures? Is adolescent emotionality especially an American phenomenon, or does it take place in other cultures as well? There is limited evidence to answer this question. However, in one study ESM was used with adolescents and their parents in India (Verma & Larson, 1999). The results indicated that, in India as in the United States, adolescents reported more extremes of emotion than their parents did.
LEARNING OBJECTIVE

Describe how self-understanding, self-concept, and self-esteem change during adolescence.

**Self-Development in Adolescence**

Self-conceptions become more complex in adolescence, due to advances in cognitive development. Self-esteem also becomes more complex, but overall self-esteem declines in early adolescence before rising in late adolescence and emerging adulthood.

**SELF-UNDERSTANDING AND SELF-CONCEPT** Self-conceptions in adolescence become more complex and more abstract. One aspect of the complexity of adolescents’ self-conceptions is that they can distinguish between an actual self and possible selves (Markus & Nurius, 1986; Oyserman & Fryberg, 2006; Whitty, 2002). The actual self is your self-conception, and possible selves are the different people you imagine you could become in the future depending on your choices and experiences. Scholars distinguish two kinds of possible selves, an ideal self and a feared self (Chalk et al., 2005). The ideal self is the person the adolescent would like to be (for example, an adolescent may have an ideal of becoming highly popular with peers or highly successful in athletics or music). The feared self is the person the adolescent imagines it is possible to become but dreads becoming (for example, an adolescent might fear becoming an alcoholic, or fear becoming like a disgraced relative or friend). Both kinds of possible selves require adolescents to think abstractly. That is, possible selves exist only as abstractions, as ideas in the adolescent’s mind.

The capacity for thinking about an actual, an ideal, and a feared self is a cognitive achievement, but this capacity may be troubling in some respects. If you can imagine an ideal self, you can also become aware of the discrepancy between your actual self and your ideal self, between what you are and what you wish you were. If the discrepancy is large enough, it can result in feelings of failure, inadequacy, and depression. Studies have found that the size of the discrepancy between the actual and ideal self is related to depressed mood in both adolescents and emerging adults (Moretti & Wiebe, 1999; Papadakis et al., 2006). Furthermore, the discrepancy between the actual and the ideal self is greater in mid-adolescence than in either early or late adolescence (Ferguson et al., 2010). This helps explain why rates of depressed mood rise in early adolescence and peak in mid-adolescence, as we will see in more detail later in the chapter.

A related aspect of the increasing complexity of self-conceptions is that adolescents become aware of times when they are exhibiting a false self, which is a self they present to others while realizing that it does not represent what they are actually thinking and feeling (Harter et al., 1997; Weir et al., 2010). With whom would you think adolescents would be most likely to exhibit their false selves—friends, parents, or potential romantic partners? Research indicates that adolescents are most likely to put on their false selves with potential romantic partners, and least likely with their close friends; parents are in between (Harter, 2006; Sippola et al., 2007). Most adolescents indicate that they sometimes dislike putting on a false self with dating partners.
false self, but many also say that some degree of false self behavior is acceptable and even desirable, to impress someone or to conceal aspects of the self they do not want others to see.

**SELF-ESTEEM** Several longitudinal studies show that self-esteem declines in early adolescence, then rises through late adolescence and emerging adulthood (Harter, 2006; Robins & Trzesniewski, 2005). There are a number of reasons why self-esteem might follow this developmental pattern. The “imaginary audience” that we have discussed as part of adolescents’ cognitive development can make them self-conscious in a way that decreases their self-esteem (Elkind, 1967; 1985). That is, as adolescents develop the capacity to imagine that others are especially conscious of how they look and what they say and how they act, they may suspect or fear that others are judging them harshly.

And they may be right. Adolescents in Western cultures tend to value the opinion of their peers highly, especially on day-to-day issues such as how they are dressed and what they say in social situations (Berndt, 1996). Their peers have developed new cognitive capacities for sarcasm and ridicule, which tend to be dispensed freely toward any peer who seems odd or awkward or uncool (Eder, 1995; Rosenblum & Way, 2004). So, the combination of greater peer orientation, greater self-consciousness about evaluations by peers, and peers’ potentially harsh evaluations contributes to declines in self-esteem in early adolescence. Self-esteem rises in late adolescence and emerging adulthood as peers’ evaluations become less important (Berndt, 1986; Robins & Trzesniewski, 2005).

As scholars have studied self-esteem, they have concluded that it has many aspects in addition to overall self-esteem. Multiple aspects of adolescent self-esteem have been investigated by Susan Harter (1990a, 1990b, 2006). Her *Self-Perception Profile for Adolescents* distinguishes the following eight domains of adolescent self-image:

- Scholastic competence
- Social acceptance
- Athletic competence
- Physical appearance
- Job competence
- Romantic appeal
- Behavioral conduct
- Close friendship

In addition to the eight subscales on specific domains of self-esteem, Harter’s scale also contains a subscale for global (overall) self-esteem. Her research indicates that adolescents do not need to have a positive self-image in all domains to have high global self-esteem. Each domain of self-image influences global self-esteem only to the extent that the adolescent views that domain as important (refer back to Chapter 7, p. 312). For example, some adolescents may view themselves as having low scholastic competence, but that would only influence their global self-esteem if it was important to them to do well in school.

Nevertheless, some domains of self-esteem are more important than others to most adolescents. Research by Harter and others has found that physical appearance is most strongly related to global self-esteem, followed by social acceptance from peers (DuBois et al., 1996; Harper, 2006; Shapka & Keating, 2005). Adolescent girls are more likely than boys to emphasize physical appearance as a basis for self-esteem. Because girls tend to evaluate their physical appearance negatively, and because physical appearance is at the heart of their global self-esteem, girls’ self-esteem tends to be lower than boys’ during adolescence (Robins & Trzesniewski, 2005; Shapka & Keating, 2005).
Gender Intensification in Adolescence

Gender is related not only to self-esteem but to many other aspects of development in adolescence. Psychologists John Hill and Mary Ellen Lynch (1983; Lynch 1991) proposed that adolescence is a particularly important time in gender socialization, especially for girls. According to their gender-intensification hypothesis, psychological and behavioral differences between males and females become more pronounced in the transition from childhood to adolescence because of intensified socialization pressures to conform to culturally prescribed gender roles. Hill and Lynch (1983) believe that it is this intensified socialization pressure, rather than the biological changes of puberty, that results in increased differences between males and females as adolescence progresses. Furthermore, they argue that the intensity of gender socialization in adolescence is greater for females than for males, and that this is reflected in a variety of ways in adolescent girls’ development.

Since Hill and Lynch (1983) proposed this hypothesis, other studies have been presented that support it (Galambos, 2004; Shanahan et al., 2007; Wichstrom, 1999). In one study, boys and girls filled out a questionnaire on gender identity each year in sixth, seventh, and eighth grades (Galambos et al., 1990). Over this 2-year period, girls’ self-descriptions became more “feminine” (e.g., gentle, affectionate) and boys’ self-descriptions became more “masculine” (e.g., tough, aggressive). However, in contrast to Hill and Lynch’s (1983) claim that gender intensification is strongest for girls, the pattern in this study was especially strong for boys and masculinity. A more recent study found that gender stereotypes were embraced more by adolescents than by younger children, for both boys and girls (Rowley et al., 2007). Another study found that increased conformity to gender roles during early adolescence took place primarily for adolescents whose parents valued traditional gender roles (Crouter et al., 1995).

Gender intensification is often considerably stronger in traditional cultures than in the West. One striking difference in gender expectations in traditional cultures is that for boys manhood is something that has to be achieved, whereas girls reach womanhood inevitably, mainly through their biological changes (Leavitt, 1998; Lindsay & Mescher, 2003). It is true that girls are required to demonstrate various skills and character qualities before they can be said to have reached womanhood. However, in most traditional cultures womanhood is seen as something that girls attain naturally during adolescence, and their readiness for womanhood is viewed as indisputably marked when they reach menarche. Adolescent boys have no comparable biological marker of readiness for manhood. For them, the attainment of manhood is often fraught with peril and carries a definite and formidable possibility of failure. As an illustration of this, it is striking to observe how many cultures have a term for a male who is a failed man (Gilmore, 1990). In contrast, although there are certainly many derogatory terms applied to women, none of them have connotations of failure at being a woman the way there are terms that mean failure at being a man.

So, what must an adolescent boy in traditional cultures do to achieve manhood and escape the stigma of being viewed as a failed man? The anthropologist David Gilmore (1990) examined this question in traditional cultures around the world and concluded that in most cultures an adolescent boy must demonstrate three capacities before he can be considered a man: provide, protect, and procreate. He must provide in the sense that he must demonstrate that he has developed skills that are economically useful and that will enable him to support the wife and children he is likely to have as an adult man. For example, if what
adult men mainly do is fish, the adolescent boy must demonstrate that he has learned the skills involved in fishing adequately enough to provide for a family.

Second, he must protect, in the sense that he must show that he can contribute to the protection of his family, kinship group, tribe, and other groups to which he belongs, from attacks by human enemies or animal predators. He learns this by acquiring the skills of warfare and the capacity to use weapons. Conflict between human groups has been a fact of life in most cultures throughout human history, so this is a pervasive requirement. Finally, he must learn to procreate, in the sense that he must gain some degree of sexual experience before marriage. This is not so he can demonstrate his sexual attractiveness but simply so that he can demonstrate that in marriage he will be able to perform sexually well enough to produce children.

WHAT HAVE YOU LEARNED?

1. Why is adolescence a time of emotional volatility?
2. How does your actual self differ from your possible self?
3. What are some domains of adolescent self-image as proposed by Harter?
4. Which domains of adolescent self-image are most strongly related to global self-esteem?
5. What must boys in traditional cultures do to achieve manhood?

Cultural Beliefs: Morality and Religion

As we have seen earlier in the chapter, cognitive development in adolescence entails a greater capacity for abstract and complex thinking. This capacity is applied not only to scientific and practical problems but to cultural beliefs, most notably in the areas of moral and religious development.

Moral Development

Discriminate between Kohlberg’s theory of moral development and Jensen’s worldview theory.

For most of the past half century, moral development was viewed as following a universal pattern, grounded in cognitive development. However, more recently, moral development has been argued to be fundamentally rooted in cultural beliefs. First we look at a theory of universal moral development, then at a cultural theory.

Kohlberg’s Theory of Moral Development  Lawrence Kohlberg (1958) presented an influential theory of moral development that dominated research on this topic for nearly a half century. Kohlberg viewed moral development as based on cognitive development, and believed that moral thinking changes in predictable ways as cognitive abilities develop, regardless of culture. He presented people with hypothetical moral dilemmas and had them indicate what behavior they believed was right or wrong in that situation, and why.

Kohlberg began his research by studying the moral judgments of 72 boys aged 10, 13, and 16 from middle-class and working-class families in the Chicago area (Kohlberg, 1958).
He presented the boys with a series of fictional dilemmas, each of which was constructed to elicit their moral reasoning. For example, in one dilemma, a man must decide whether or not to steal a drug he cannot afford, to save his dying wife.

To Kohlberg, what was crucial for understanding the level of people’s moral development was not whether they concluded that the actions of the persons in the dilemma were right or wrong but how they explained their conclusions; his focus was on adolescents’ moral reasoning, not moral evaluations of right and wrong or their moral behavior. Kohlberg (1976) developed a system for classifying moral reasoning into three levels of moral development, with each level containing two stages, as follows:

Level 1: Preconventional reasoning. At this level, moral reasoning is based on perceptions of the likelihood of external rewards and punishments. What is right is what avoids punishment or results in rewards.

- Stage 1: Punishment and obedience orientation. Rules should be obeyed to avoid punishment from those in authority.
- Stage 2: Individualism and purpose orientation. What is right is what satisfies one’s own needs and occasionally the needs of others, and what leads to rewards for oneself.

Level 2: Conventional reasoning. At this level, moral reasoning is less egocentric and the person advocates the value of conforming to the moral expectations of others. What is right is whatever agrees with the rules established by tradition and by authorities.

- Stage 3: Interpersonal concordance orientation. Care of and loyalty to others is emphasized in this stage, and it is seen as good to conform to what others expect in a certain role, such as being a “good husband” or a “good wife.”
- Stage 4: Social systems orientation. Moral judgments are explained by reference to concepts such as social order, law, fairness, and justice. It is argued that rules and laws must be respected for social order to be maintained.

Level 3: Postconventional reasoning. Moral reasoning at this level is based on the person’s own independent judgments rather than on what others view as wrong or right. What is right is derived from the person’s perception of objective, universal principles rather than being based on the needs of the individual (as in Level 1) or the standards of the group (as in Level 2).

- Stage 5: Community rights and individual rights orientation. The person reasoning at this stage views society’s laws and rules as important, but also sees it as important to question them and change them if they become obstacles to the fulfillment of ideals such as freedom and equality.
- Stage 6: Universal ethical principles orientation. The person has developed an independent moral code based on universal principles. When laws or social conventions conflict with these principles, it is seen as better to violate the laws or conventions than the universal principles.

Kohlberg followed his initial group of adolescent boys over the next 20 years (Colby et al., 1983), interviewing them every 3 or 4 years, and he and his colleagues also conducted numerous other studies on moral reasoning in adolescence and adulthood. The results verified Kohlberg’s theory of moral development in a number of ways:

- Stage of moral reasoning tended to increase with age. However, even after 20 years, when all of the original participants were in their thirties, few of them had proceeded to Stage 5, and none had reached Stage 6 (Colby et al., 1983). Kohlberg eventually dropped Stage 6 from his coding system (Kohlberg, 1986).
- Moral development proceeded in the predicted way, in the sense that the participants did not skip stages but proceeded from one stage to the next highest over time.

**preconventional reasoning** first level in Kohlberg’s theory of moral development, in which moral reasoning is based on perceptions of the likelihood of external rewards and punishments

**conventional reasoning** second level in Kohlberg’s theory of moral development, in which moral reasoning is based on the expectations of others

**postconventional reasoning** third level in Kohlberg’s theory of moral development, in which moral reasoning is based on the individual’s own independent judgments rather than on what others view as wrong or right
Moral development was found to be cumulative, in the sense that the participants were rarely found to slip to a lower stage over time. With few exceptions, they either remained in the same stage or proceeded to the next highest stage.

Kohlberg’s goal was to propose a universal theory of moral development, a theory that would apply to people in all cultures. One reason he used hypothetical moral dilemmas rather than having people talk about moral issues they had confronted in real life was that he believed that the culture-specific and person-specific content of moral reasoning is not important to understanding moral development. According to Kohlberg, what matters is the structure of moral reasoning, not the content. In other words, what matters is how people make their moral judgments, not whether they view certain acts as right or wrong.

CULTURE AND MORAL DEVELOPMENT: THE WORLDVIEWS THEORY Does Kohlberg’s theory of moral development apply universally, as he intended? Research based on Kohlberg’s theory has included cross-cultural studies in countries all over the world such as Turkey, Japan, Taiwan, Kenya, Israel, and India (Gibbs et al., 2007; Snarey, 1985). Many of these studies have focused on moral development in adolescence and emerging adulthood. In general, the studies confirm Kohlberg’s hypothesis that moral development as classified by his coding system progresses with age. Also, as in the American studies, participants in longitudinal studies in other cultures have rarely been found to regress to an earlier stage or to skip a stage of moral reasoning.

Nevertheless, Kohlberg’s claims of a universal theory of moral development have been challenged, most notably by cultural psychologist Richard Shweder (2003; Shweder et al., 1990; Shweder et al., 2006). As you will remember from Chapter 6 (p. 255), Shweder believes it is impossible to understand moral development unless you understand the cultural worldview that underlies it. In contrast to Kohlberg, Shweder proposed that the content of people’s moral reasoning, including their views of right and wrong, is at the heart of moral development and cannot simply be ignored.

Shweder and his colleagues have presented an alternative to Kohlberg’s theory of moral development (Shweder et al., 1997). The new theory has been developed mostly by a former student of Shweder’s, Lene Jensen (1997a, 1997b, 2008, 2011). According to Jensen, the ultimate basis of morality is a person’s worldview. A worldview is a set of cultural beliefs that explain what it means to be human, how human relations should be conducted, and how human problems should be addressed. Worldviews provide the basis for moral reasoning (explanations for why a behavior is right or wrong). The outcome of moral reasoning is moral evaluations (judgments as to whether a behavior is right or wrong), which in turn prescribe moral behaviors. Moral behaviors reinforce worldviews. An illustration of the worldviews theory is shown in Figure 8.6.

In her research, Jensen codes people’s responses to moral issues according to three types of “ethics” based on different worldviews.

- The Ethic of Autonomy defines the individual as the primary moral authority. Individuals are viewed as having a right to do as they wish so long as their behavior does not harm others.
- The Ethic of Community defines individuals as members of social groups to which they have commitments and obligations. In this ethic, the responsibilities of roles in the family, community, and other groups are the basis of one’s moral judgments.
- The Ethic of Divinity defines the individual as a spiritual entity, subject to the prescriptions of a divine authority. This ethic includes moral views based on traditional religious authorities and religious texts (e.g., the Bible, the Koran).

Figure 8.6  Worldviews Theory How is this theory different from Kohlberg’s? 
Source: Based on Jensen (2008).
Studies on adolescents’ moral reasoning using the worldviews approach are now in progress, but research has already been published involving emerging adults. Research conducted thus far has shown that emerging adults in the United States rely especially on the ethic of autonomy. Jensen (1995) found that American emerging adults relied on the ethic of autonomy more than midlife or older adults did when explaining their views about moral issues such as divorce and suicide. Also, Jonathan Haidt and colleagues (1993) found that college students in both the United States and Brazil used autonomy more than community on a variety of moral issues. However, one study found that emerging adults used autonomy and community in roughly equal proportions (and divinity rarely) in response to questions about the values that guide their lives and the beliefs and values they would like to pass on to the next generation (Arnett et al., 2001). Research using the three ethics has only begun, and it remains to be seen how their use changes in different cultures throughout the lifespan (Jensen, 2011).

**Religious Beliefs**

Like moral development, the development of religious beliefs reaches a critical point in adolescence, because adolescence is a time when the abstract ideas involved in religious beliefs can first be fully grasped. In general, adolescents and emerging adults in developed countries are less religious than their counterparts in developing countries. Developed countries tend to be highly **secular**, which means based on nonreligious beliefs and values. In every developed country, religion has gradually faded in its influence over the past 2 centuries (Bellah et al., 1985). Religious beliefs and practices are especially low among adolescents in Europe. For example, in Belgium only 8% of 18-year-olds attend religious services at least once a month (Goossens & Luyckx, 2006). In Spain, traditionally a highly Catholic country, only 18% of adolescents attend church regularly (Gibbons & Stiles, 2004). Americans are more religious than people in virtually any other developed country, and this is reflected in the lives of American adolescents (see Table 8.2; Smith & Denton, 2005). However, religion has a lower priority for most of them than many other parts of their lives, including school, friendships, media, and work. Furthermore, the religious beliefs of American adolescents tend not to follow traditional doctrines, and they often know little about the doctrine of the religion they claim to follow. Instead, they tend to believe that religious faith is about how to be a good person and feel happy.

Many American adolescents are religious, but many others are not. What explains differences among adolescents in their religiosity? Family characteristics are one important influence (Smith & Denton, 2005). Adolescents are more likely to embrace the importance of religion when their parents talk about religious issues and participate in religious activities (King et al., 2002; Layton et al., 2011). Adolescents are less likely to be religious when their parents disagree with each other about religious beliefs, and when their parents are divorced (Smith & Denton, 2005). Ethnicity is another factor. In American society religious faith and religious practices tend to be stronger among African Americans than among Whites (Chatters et al., 2008).

The relatively high rate of religiosity among African American adolescents helps explain why they have such low rates of alcohol and drug use (Stevens-Watkins et al., 2010). However, it is not only among minority groups that religiosity is associated with favorable adolescent outcomes. Across American cultural groups, adolescents who are more religious report less depression and lower rates of premarital sex, drug use, and delinquent behavior (Kerestes et al., 2004; Smith & Denton, 2005). The protective value of religious involvement is especially strong for adolescents living in the worst neighborhoods (Bridges & Moore, 2002). Religious adolescents tend to have better relationships with their parents (Smith & Denton, 2005; Wilcox, 2008). Also, adolescents who value religion are more likely than other adolescents to perform volunteer service to their community (Hart & Atkins, 2002). Therefore, the trend in religiosity should continue to be encouraging for those who wish to influence the lives of adolescents in a positive way.
In other cultures, too, religious involvement has been found to be related to a variety of positive outcomes, for example among Indonesian Muslim adolescents (French et al., 2008).

**WHAT HAVE YOU LEARNED?**

1. In Kohlberg’s theory, what level of moral reasoning views moral judgments as being based on the need to uphold social order?
2. Why did Kohlberg use hypothetical moral dilemmas in his research?
3. According to the worldviews theory, why is it important to know people’s conceptions of right and wrong?
4. What factors influence how religious an adolescent will be?
5. What are some favorable outcomes associated with religiosity in adolescence?

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**The Social and Cultural Contexts of Adolescence**

Like younger children, adolescents typically remain within the family, and most of them also attend school. However, social contexts of peers, romantic relations, work, and media often have greater prominence in adolescence than previously. Also, for some adolescents certain types of problems develop that were rare in previous life stages.

**Family Relationships**

Summarize the cultural variations in adolescents’ relationships with parents, siblings, and extended family.

The family is a key part of the daily social context of adolescents in all cultures, but in most cultures there are also profound changes in family relations from middle childhood to adolescence. Perhaps the most notable change in family relationships that occurs from middle childhood to adolescence in American society is the decline in the amount of time spent with family members, as described in the **Research Focus: The Daily Rhythms of Adolescents’ Family Lives** feature on page 373. When adolescents do spend time with their parents, conflict is more frequent than in middle childhood, as we will see next.

**CONFLICT WITH PARENTS**

This is a dangerous world, what with all the drugs and drunk drivers and violent crime and kids disappearing and you name it. I know my kids are pretty responsible, but can I trust all their friends? Are they going to end up in some situation they can’t get out of? Are they going to get in over their heads? You can never be sure, so I worry and set curfews and make rules about where they can go and who they can go with. Not because I want to be a tough dad, but because I want them to be safe.

John, father of a 16-year-old son and a 13-year-old daughter (Bell, 1998, p. 54)

Numerous studies have shown that adolescents and their parents agree on many of their beliefs and values, and typically they have a great deal of love and respect for one another (Moore et al., 2002; Offer & Schonert-Reichl, 1992; Smetana, 2005). Nevertheless, studies in Western countries also indicate that conflict with parents increases sharply in
Figure 8.7  *Parental Conflict in Adolescence*  Why does conflict peak in the mid-teens?  
*Source:* Granic et al. (2003)

autonomy  quality of being independent and self-sufficient, capable of thinking for one’s self

APPLYING YOUR KNOWLEDGE  . . . as a Counselor

One of your adolescent clients, Chuan, who is a 14-year-old Chinese girl, has trouble talking about conflicts she has with her parents, even though she seems very upset that they are getting divorced. How might you apply what you have learned to help her?

Why does conflict with parents rise from middle childhood to adolescence?

early adolescence, compared with middle childhood, and remains high for several years before declining in late adolescence (Dworkin & Larson, 2001; Laursen et al., 1998; Shanahan et al., 2007). Figure 8.7 shows the pattern of conflict across adolescence, from a longitudinal study that observed American mothers and sons in videotaped interactions on five occasions over 8 years (Granic et al., 2003). A Canadian study found that 40% of adolescents reported arguments with their parents at least once a week (Sears et al., 2006). Conflict in adolescence is especially frequent and intense between mothers and daughters (Collins & Laursen, 2004). Both parents and adolescents report more frequent conflict in early adolescence than prior to adolescence; by mid-adolescence, conflict with parents tends to become somewhat less frequent but more intense before declining substantially in late adolescence (Laursen et al., 1998).

There are several reasons why conflict with parents often rises during adolescence. First, adolescence entails reaching sexual maturity, which means that sexual issues may be a source of conflict in a way they would not have been in childhood (Arnett, 1999). Early-maturing adolescents tend to have more conflict with parents than adolescents who mature “on time,” perhaps because sexual issues arise earlier (Collins & Laursen, 2004). Second, advances in cognitive development make it possible for adolescents to rebut their parents’ reasoning about rules and restrictions more effectively than they could have earlier. Third, and most importantly, in many cultures adolescence is a time of gaining greater independence from the family. Although parents and adolescents in these cultures usually share the same goal that the adolescent will eventually become a self-sufficient adult, they often disagree about the pace of adolescents’ growing autonomy (Daddis & Smetana, 2006; Smetana, 2005). Parents may have concerns about adolescents’ safety with respect to sexuality, automobile driving, and substance use, and so restrict adolescents’ behavior in an effort to protect them from risks. Adolescents expect to be able to make their own decisions in these areas and resent their parents’ restrictions, and conflict results.

However, not all cultures value and encourage increased autonomy in adolescence. In traditional cultures, it is rare for parents and adolescents to engage in the kind of frequent conflicts typical of parent–adolescent relationships in Western cultures (Larson et al., 2010). The role of parent carries greater authority in traditional cultures than in the West, and this makes it less likely that adolescents in such cultures will express disagreements and resentments toward their parents (Phinney et al., 2005). Even when they disagree with their parents, they are unlikely to express it because of their feelings of duty and respect (Phinney & Ong, 2002). Outside of the West, as we have seen in previous chapters, interdependence is a higher value than independence, not only during adolescence but throughout adulthood (Markus & Kitayama, 2003; Phinney et al., 2005). Just as a dramatic increase in autonomy during adolescence prepares Western adolescents for adult life in an individualistic culture, learning to submit to the authority of one’s parents prepares adolescents in traditional cultures for an adult life in which interdependence is among the highest values and each person has a clearly designated position in a family hierarchy.
adolescent researchers have found the Experience Sampling Method (ESM) to be a helpful source of information on adolescents’ social lives. Reed Larson and Maryse Richards are the two scholars who have done the most to apply the ESM to adolescents and their families. In their classic book Divergent Realities: The Emotional Lives of Mothers, Fathers, and Adolescents (Larson & Richards, 1994), they described the results of a study that included a sample of 483 American adolescents in fifth through ninth grades, and another sample of 55 fifth through eighth graders and their parents. All were two-parent, White families. In each family, three family members (adolescent, mother, and father) were beeped at the same times, about 30 times per day between 7:30 in the morning and 9:30 at night, during the week of the study.

When beeped, adolescents and their parents paused from whatever they were doing and recorded a variety of information about where they were, whom they were with, and what they were doing. There were also items about the degree to which they felt happy to unhappy, cheerful to irritable, and friendly to angry, as well as how hurried, tired, and competitive they were feeling. The results provide “an emotional photo album . . . a set of snapshots of what [adolescents] and [their] parents go through in an average week” (Larson & Richards, 1994, p. 9).

What do the results tell us about the daily rhythms of American adolescents’ family lives? One striking finding of the study was how little time adolescents and their parents actually spent together on a typical day. Mothers and fathers each averaged about an hour a day spent in shared activities with their adolescents, and their most common shared activity was watching television. The amount of time adolescents spent with their families dropped by 50% between fifth and ninth grades and declined even more sharply between ninth and twelfth grades (see Figure 8.8). In turn, there was an increase from fifth to ninth grade in the amount of time adolescents spent alone in their bedrooms.

The study also revealed some interesting gender differences in parent–adolescent relationships. Mothers were more deeply involved with their adolescents, both for better and for worse. The majority of mother–adolescent interactions were rated positively by both of them, especially experiences such as talking together, going out together, and sharing a meal. Adolescents, especially girls, tended to be closer to their mothers than to their fathers and had more conversations with them about relationships and other personal issues. However, adolescents’ negative feelings toward their mothers increased sharply from fifth to ninth grade, and certain positive emotions decreased. For example, the proportion of interactions with the mother in which adolescents reported feeling “very close” to her fell from 68% in fifth grade to just 28% by ninth grade. Also, adolescents reported more conflicts with their mothers than with their fathers, and the number of conflicts between mothers and adolescents increased from fifth to ninth grades.

As for fathers, they tended to be only tenuously involved in their adolescents’ lives, a “shadowy presence,” as Larson and Richards put it. For most of the time they spent with their adolescents, the mother was there as well, and the mother tended to be more directly involved with the adolescent when the three of them were together. Moms were usually on the “front lines” of parenting, whereas for fathers parenting was more of a voluntary, leisure-time activity. Fathers averaged only 12 minutes per day alone with their adolescents, and 40% of this time was spent watching TV together. Fathers and their adolescents did not talk much, and when they did, sports was the most common topic.

At the same time, however, the study showed that parents are often important sources of comfort and security for adolescents. Adolescents brought home to the family their emotions from the rest of the day. If their parents were responsive and caring, adolescents’ moods improved and their negative emotions were relieved. In contrast, if adolescents felt their parents were unavailable or unresponsive, their negative feelings became even worse.

In sum, the study demonstrates the enduring importance of parents in the lives of adolescents. Also, because the study included the perspectives of fathers and mothers as well as adolescents, the results provide a vivid sense of the interconnected emotions and perspectives within the family system.
SIBLING AND EXTENDED-FAMILY RELATIONS  For about 80% of American adolescents, and similar proportions in other developed countries, the family system also includes relationships with at least one sibling (U.S. Bureau of the Census, 2009). The proportion of families with siblings is even higher in developing countries, where birthrates tend to be higher and families with only one child are rare (Population Reference Bureau, 2009).

How did you get along with your siblings when you were in adolescence? My older brother Mike and I fought constantly during my adolescence, with me mostly on the losing end (until I hit my growth spurt and grew to be 6’3”; he seemed to lose interest in fighting with me after that.) Relations with siblings in adolescence often involve conflict. In studies that compare adolescents’ relationships with siblings to relationships with parents, grandparents, teachers, and friends, adolescents report more frequent conflicts with their siblings than with anyone else (Campione-Barr & Smetana, 2010). Common sources of conflict include teasing, possessions (e.g., borrowing a sibling’s clothes without permission), responsibility for chores, name-calling, invasions of privacy, and perceived unequal treatment by parents (Noller, 2005; Updegraff et al., 2005). However, even though adolescents tend to have more conflicts with siblings than in their other relationships, conflict with siblings is lower in adolescence than at younger ages (Brody, 2004; Noller, 2005). From childhood to adolescence, relationships with siblings become more casual and less emotionally intense, mainly because adolescents gradually spend less time with their siblings (Hetherington et al., 1999).

As noted in previous chapters, by middle childhood, children in traditional cultures often have responsibility for caring for young siblings, and for many this responsibility continues into adolescence. In Schlegel and Barry’s (1991) analysis of adolescence in traditional cultures, over 80% of adolescent boys and girls had frequent responsibility for caring for younger siblings. This responsibility promotes conflict between siblings, but also close attachments. Time together, and closeness, is especially high between siblings of the same gender, mainly because in traditional cultures, daily activities are often separated by gender. Caregiver relationships between siblings are also common in African American families, in part because many African American families are headed by single mothers who rely on older siblings to help with child care (Brody et al., 2003).

Adolescents in traditional cultures also tend to be close to their extended family members. In these cultures children often grow up in a household that includes not only their parents and siblings but also grandparents, and often uncles, aunts, and cousins as well. These living arrangements promote closeness between adolescents and their extended family. In Schlegel and Barry’s (1991) cross-cultural analysis, daily contact was as high with grandparents as with parents for adolescents in traditional cultures, and adolescents were usually even closer to their grandparents than to their parents. Perhaps this is because parents typically exercise authority over adolescents, which may add ambivalence to adolescents’ relationships with their parents, whereas grandparents are less likely to exercise authority and may focus more on nurturing and supporting adolescents.

Extended family members are also important figures in the lives of adolescents in Western majority cultures. About 80% of American adolescents list at least one member of their extended family among the people most important to them, and closeness to grandparents is positively related to adolescents’ well-being (Ruiz & Silverstein, 2007). However, in the American majority culture adolescents’ contact with extended family members is relatively infrequent, in part because extended family members often live many miles away. When extended family members live within the household or nearby, as is often the case in African American, Latino, and Asian American families, adolescents’ closeness to them tends to resemble the pattern in traditional cultures (Fuligni et al., 1999; Suarez-Orozco & Suarez-Orozco, 1996; Oberlander et al., 2007).
Peers and Friends

Describe cultural variations in adolescents’ relationships with friends, and characterize their interactions with peers.

I feel close to my friends when I’ve had troubles and stuff. I’ve been able to go to them and they’ll help me. Last spring I let my friend know all about me, how my family was having trouble and stuff. I felt close to her and like she would keep this and not tell anyone else about it.

13 year-old girl (Radmacher & Azmitia, 2006, p. 428)

As time spent with family decreases from middle childhood to adolescence, time spent with friends increases, in most cultures. Friends also become increasingly important in adolescents’ emotional lives. In adolescence, as at other ages, friends choose one another primarily due to similarities in characteristics such as age, gender, ethnic group, personality, and leisure interests (Popp et al., 2008).

FRIENDSHIPS: CULTURAL THEMES AND VARIATIONS. Although family ties remain important in the lives of adolescents, friends become preferred in some ways. Adolescents indicate that they depend more on friends than on their parents or siblings for companionship and intimacy (French et al., 2001; Nickerson & Nagle, 2005; Updegraff et al., 2002). Friends become the source of adolescents’ happiest experiences, the people with whom they feel most comfortable, the persons they feel they can talk to most openly (Richards et al., 2002; Youniss & Smollar, 1985).

European studies comparing relationships with parents and friends show a pattern similar to American studies (Zeijl et al., 2000). For example, a study of Dutch adolescents (ages 15 to 19) asked them who they rely on to communicate about themselves, including their personal feelings, sorrows, and secrets (Bois-Reymond & Ravesloot, 1996). Nearly half of the adolescents named their best friend or their romantic partner, whereas only 20% named one or both parents (only 3% their fathers). Another Dutch study found that 82% of adolescents named spending free time with friends as their favorite activity (Meeus, 2006). Studies in other European countries confirm that adolescents tend to be happiest when with their friends and that they tend to turn to their friends for advice and information on social relationships and leisure, although they come to parents for advice about education and career plans (Hurrelmann, 1996).

As noted earlier in the chapter, adolescence in traditional cultures often entails less involvement with family and greater involvement with peers for boys but not for girls. However, for boys as well as girls the social and emotional balance between friends and family remains tilted more toward family for adolescents in developing countries than it does in the West. For example, in India, adolescents tend to spend their leisure time with family rather than friends, not because they are required to do so but because of collectivistic Indian cultural values and because they enjoy their time with family (Chaudhary & Sharma, 2012; Larson et al., 2000). Among Brazilian adolescents, emotional support is higher from parents than friends (Van Horn & Cunegatto Marques, 2000). In a study comparing adolescents in Indonesia and the United States, Indonesian adolescents rated their family members higher and their friends lower on companionship and enjoyment, compared to American adolescents (French et al., 2001). Nevertheless, friends...
were the primary source of intimacy in both countries. Thus, it may be that adolescents in developing countries remain close to their families even as they also develop greater closeness to their friends during adolescence, whereas in the West closeness to family diminishes as closeness to friends grows.

**THE IMPORTANCE OF INTIMACY** Probably the most important feature of adolescent friendships is intimacy. **Intimacy** is the degree to which two people share personal knowledge, thoughts, and feelings. Adolescent friends confide hopes and fears, and help each other understand what is going on with their parents, their teachers, and peers to a far greater degree than younger children do.

When adolescents are asked what they would want a friend to be like or how they can tell that someone is their friend, they tend to mention intimate features of the relationship (Berndt, 1996; Radmacher & Azmitia, 2006). They state, for example, that a friend is someone who understands you, someone you can share your problems with, someone who will listen when you have something important to say (Bauminger et al., 2008; Way, 2004). Younger children are less likely to mention these kinds of features and more likely to stress shared activities—we both like to play basketball, we ride bikes together, we play computer games, and so on. As noted in Chapter 7, trust also becomes important to friendships in middle childhood, and trust is one aspect of intimacy, but the importance of intimacy develops further in adolescence.

There are consistent gender differences in the intimacy of adolescent friendships, with girls tending to have more intimate friendships than boys do (Bauminger et al., 2008). Girls spend more time than boys talking to their friends, and they place a higher value on talking together as a component of their friendships (Apter, 1990; Youniss & Smollar, 1985). Girls also rate their friendships as higher in affection, helpfulness, and nurturance, compared with boys’ ratings of their friendships (Lempers & Clark-Lempers, 1993). And girls are more likely than boys to say they trust and feel close to their friends (Shulman et al., 1997). In contrast, even in adolescence, boys are more likely to emphasize shared activities as the basis of friendship, such as sports or hobbies (Radmacher & Azmitia, 2006).

Nevertheless, intimacy does become more important to boys’ friendships in adolescence, even if not to the same extent as for girls. In one study of African American, Latino, and Asian American boys from poor and working-class families, Niobe Way (2004) reported themes of intimacy that involved sharing secrets, protecting one another physically and emotionally, and disclosing feelings about family and friends.

**CLIQUEs AND CROWDS** So far we have focused on close friendships. Now we turn to larger groups of friends and peers. Scholars generally make a distinction between two types of adolescent social groups, cliques and crowds. **Clique**s are small groups of friends who know each other well, do things together, and form a regular social group (Brown & Klute, 2003). Cliques have no precise size—3 to 12 is a rough range—but they are small enough so that all the members of the clique feel they know each other well and they think of themselves as a cohesive group. Sometimes cliques are defined by distinctive shared activities—for example, working on cars, playing music, playing basketball, surfing the Internet—and sometimes simply by shared friendship (a group of friends who eat lunch together every day, for example).

**Crowds**, in contrast, are larger, reputation-based groups of adolescents who are not necessarily friends and may not spend much time together (Brown et al., 2008; Brown & Klute, 2003; Horn, 2003). A review of

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**Watch the Video Intimacy in Adolescent Friendships at MyDevelopmentLab**

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* intimacy  degree to which two people share personal knowledge, thoughts, and feelings

* clique  small group of friends who know each other well, do things together, and form a regular social group

* crowd  large, reputation-based group of adolescents

* Cliques are often formed around shared activities. Here, South African adolescents enjoy a game of soccer.*
44 studies on adolescent crowds concluded that five major types of crowds are found in many schools (Susman et al., 2007):

- Elites (a.k.a. Populars, Preppies). The crowd recognized as having the highest social status in the school.
- Athletes (a.k.a. Jocks). Sports-oriented students, usually members of at least one sports team.
- Academics (a.k.a. Brains, Nerds, Geeks). Known for striving for good grades and for being socially inept.
- Deviants (a.k.a. Druggies, Burnouts). Alienated from the school social environment, suspected by other students of using illicit drugs and engaging in other risky activities.
- Others (a.k.a. Normals, Nobodies). Students who do not stand out in any particular way, neither positively nor negatively; mostly ignored by other students.

Crowds mainly serve the function of helping adolescents to locate themselves and others within the secondary school social structure. In other words, crowds help adolescents to define their own identities and the identities of others. Knowing that others think of you as a “Brain” has implications for your identity—it means you are the kind of person who likes school, does well in school, and perhaps has more success in school than in social situations. Thinking of someone else as a “Druggie” tells you something about that person (whether it is accurate or not)—he or she uses drugs, of course, probably dresses unconventionally, and does not seem to care much about school.

**BULLYING** At the age of 15, Phoebe Prince immigrated to the United States from Ireland with her family. She liked her new school at first and made friends, but then a popular boy took an interest in her, and she dated him a few times. Other girls who were interested in the boy began to harass her aggressively, calling her names in school and sending vicious e-mail messages spreading false rumors about her. Friendless and persecuted in and out of school, she sank deeper and deeper into despair and finally committed suicide, to the horror of her family and her community.

This shocking true-life example shows how serious the consequences of bullying in adolescence can be. As noted in Chapter 7, bullying is common in middle childhood, but the prevalence of bullying rises through middle childhood and peaks in early adolescence, then declines substantially by late adolescence (Pepler et al., 2006). Bullying is an international phenomenon, observed in many countries in Europe (Dijkstra et al., 2008; Gini et al., 2008), Asia (Ando et al., 2005; Hokoda et al., 2006), and North America (Pepler et al., 2008; Volk et al., 2006). In a landmark study of bullying among over 100,000 adolescents ages 11–15 in 28 countries around the world, self-reported prevalence rates of being a victim of bullying ranged from 6% among girls in Sweden to 41% among boys in Lithuania, with rates in most countries in the 10–20% range (Due et al., 2005). Across countries, in this study and many others, boys are consistently more likely than girls to be bullies as well as victims.

Bullying has a variety of negative effects on adolescents’ development. In the 28-country study of adolescent bullying just mentioned, victims of bullying reported higher rates of a wide range of problems, including physical symptoms such as headaches, backaches, and difficulty sleeping, as well as psychological symptoms such as loneliness, helplessness, anxiety, and unhappiness (Due et al., 2005). Many other studies have reported similar results (Olweus, 2000). Not only victims but bullies are at high risk for problems (Klomek et al., 2007). A Canadian study of bullying that surveyed adolescents for 7 years beginning at ages 10–14 found that bullies reported more psychological problems and more problems in their relationships with parents and peers than non-bullies did (Pepler et al., 2008).

A recent variation on bullying is **cyberbullying** (also called electronic bullying), which involves bullying behavior via social media (such as Facebook), e-mail, or mobile phones (Kowalski, 2008). A Swedish study of 12- to 20-year-olds found an age pattern of...
cyberbullying similar to what has been found in studies of “traditional” bullying, with the highest rates in early adolescence and a decline through late adolescence and emerging adulthood (Slonje & Smith, 2008). In a study of nearly 4,000 adolescents in Grades 6–8 in the United States, 11% reported being victims of a cyberbullying incident at least once in the past 2 months; 7% indicated that they had been cyberbullies as well as victims during this time period; and 4% reported committing a cyberbullying incident (Kowalski & Limber, 2007). Notably, half of the victims did not know the bully’s identity, a key difference between cyberbullying and other bullying. However, cyberbullying usually involves only a single incident, so it does involve the repetition required in the standard definition of traditional bullying (refer to Chapter 7, page 322), and might be better termed online harassment (Wolak et al., 2007).

### Love and Sexuality

**LEARNING OBJECTIVE**

Identify cultural variations in adolescent love and sexuality, including variations in adolescent pregnancy and contraceptive use.

Puberty means reaching sexual maturity. Consequently, adolescence is when sexual feelings begin to stir and—in many cultures, but not all—sexual behavior is initiated. First we look at love, then at sex.

**FALLING IN LOVE** The prevalence of involvement in romantic relationships increases gradually over the course of adolescence. According to a study in the United States called the National Study of Adolescent Health, the percentage of adolescents reporting a current romantic relationship rises from 17% in seventh grade to 32% in ninth grade to 44% in eleventh grade (Furman & Hand, 2006). By eleventh grade, 80% of adolescents had experienced a romantic relationship at some point, even if they did not have one currently. Adolescents with an Asian cultural background tend to have their first romantic relationship later than adolescents with a European, African American, or Latino cultural background, because of Asian cultural beliefs that discourage early involvement in romantic relationships and encourage minimal or no sexual involvement before marriage (Carver et al., 2003; Connolly et al., 2004; Regan et al., 2004).

Adolescent romantic relations tend to be less formal today than in the past. Even the terms *date* and *dating* have fallen out of fashion, replaced by *going with* or *hanging out with* or *seeing* someone (Alsaker & Flammer, 1999; Furman & Hand, 2006). Adolescent boys and girls still go together to movies, sports events, and school dances, of course, but they are much more likely than before to spend time together informally. They may do things in pairs as friends, or go out in mixed-gender groups, without any specific pairing up. Before the Women’s Movement of the 1960s, gender roles were much more sharply drawn in the West, and adolescent boys and girls were less likely simply to hang out together as friends. Now they often know each other as friends before they become involved romantically (Kuttler et al., 1999).

It is not only in the West, and not only in developed countries, that adolescents experience romantic love. On the contrary, feelings of passion appear to be virtually universal among young people. One study investigated this issue systematically by analyzing the Standard Cross-Cultural Sample, a collection of data provided by anthropologists on 186 traditional cultures representing six distinct geographical regions around the world (Jankowiak and Fischer, 1992). The researchers concluded that there was evidence that young people fell passionately in love in all but one of the 186 cultures studied. In all the other cultures, even though they differed widely in geographical region, economic characteristics, and many other ways, young lovers experienced the delight and despair of passionate love, told stories about famous lovers, and sang love songs.

However, this does not mean that young people in all cultures are allowed to act on their feelings of love. On the contrary, romantic love as the basis for marriage is a fairly new cultural idea (Hatfield & Rapson, 2005). As we will see in detail in Chapter 9, in most
cultures throughout most of history marriages have been arranged by parents, with little regard for the passionate desires of their children.

**CULTURAL VARIATIONS IN ADOLESCENT SEXUALITY** Even though adolescents in all cultures go through similar biological processes in reaching sexual maturity, cultures vary enormously in how they view adolescent sexuality. Variations among countries in sexual behavior during adolescence is due primarily to variations in cultural beliefs about the acceptability (or not) of premarital sex. The best framework for understanding this variation among countries remains a book that is now over 50 years old, *Patterns of Sexual Behavior*, by Clellan Ford and Frank Beach (1951). These two anthropologists compiled information about sexuality from over 200 cultures. On the basis of their analysis they described three types of cultural approaches to adolescent sexuality: permissive, semirestrictive, and restrictive.

**Permissive cultures** tolerate and even encourage adolescent sexuality. Most of the countries of Northern Europe today would fall into this category. Adolescents in these countries usually begin an active sexual life in their late teens, and parents often allow them to have a boyfriend or girlfriend spend the night (Trost, 2012).

**Semirestrictive cultures** have prohibitions on premarital adolescent sex. However, in these cultures the formal prohibitions are not strongly enforced and are easily evaded. Adults in these cultures tend to ignore evidence of premarital sexual behavior as long as young people are fairly discreet. Most developed countries today would fall into this category, including the United States, Canada, and most of Europe (Regnerus, 2011).

**Restrictive cultures** place strong prohibitions on adolescent sexual activity before marriage. The prohibition on premarital sex is enforced through strong social norms and by keeping boys and girls separated through adolescence. Young people in Asia and South America tend to disapprove strongly of premarital sex, reflecting the view they have been taught by their cultures (Regan et al., 2004).

In some countries, the restrictiveness of the taboo on premarital sex even includes the threat of physical punishment and public shaming. A number of Arab countries take this approach, including Algeria, Syria, and Saudi Arabia. Premarital female virginity is a matter of not only the girl’s honor but the honor of her family, and if she is known to lose her virginity before marriage, the males of her family may punish her, beat her, or even kill her (Moghadam, 2004). Although many cultures also value male premarital chastity, no culture punishes male premarital sex with such severity.

Even outside the Arab world, premarital sexual standards are usually more restrictive for girls than for boys. A *double standard* in cultural views of adolescent sexuality is common worldwide, in which premarital sex is allowed for boys but forbidden for girls (Crawford & Popp, 2003; Moore & Rosenthal, 2006). In cultures where the double standard is especially strong, boys sometimes gain their first sexual experience with prostitutes or with older women who are known to be friendly to the sexual interests of adolescent boys (Davis & Davis, 2012; Howard, 1998). However, this double standard also sets up a great deal of sexual and personal tension between adolescent girls and boys, with boys pressing for girls to relax their sexual resistance and girls fearful of the shame and disgrace that will fall on them (and not on the boy) if they should give in.

**ADOLESCENT PREGNANCY AND CONTRACEPTIVE USE** Although cultures vary in how they view adolescent sex, nearly everywhere in the world premarital pregnancy in adolescence is viewed as undesirable. Two types of countries have low rates of premarital pregnancy: those that are permissive about adolescent sex and those that are restrictive. Northern European countries such as Denmark, Sweden, and the Netherlands have low rates of adolescent pregnancy because they are permissive about adolescent sex (Avery & Lazdane, 2008; Boyle, 2001). There are explicit safe-sex campaigns in the media. Adolescents have easy access to all types of contraception. Parents accept that their children will become sexually active by their late teens. It is not uncommon for adolescents in these countries to have a boyfriend or girlfriend stay overnight (Trost, 2012).

**APPLYING YOUR KNOWLEDGE . . . as a Teacher**

Aparajita is a 17-year-old senior in your high school class. She tells you her parents plan to help find her an appropriate husband, and though she is happy about it, she is getting harassed by her peers. What can you tell her to help her feel better?

**THINKING CULTURALLY**

Is there a gender double standard for adolescent sexuality in your culture?
At the other end of the spectrum, restrictive countries such as Japan, South Korea, and Morocco strictly forbid adolescent sex (Davis & Davis, 2012; Hatfield & Rapson, 2005; Stevenson & Zusho, 2002). Adolescents in these countries are even strongly discouraged from dating until they are well into emerging adulthood and are seriously looking for a marriage partner. It is rare for an adolescent boy and girl even to spend time alone together, much less have sex. Some adolescents follow the call of nature anyway and violate the taboo, but violations are rare because the taboo is so strong and the shame of being exposed for breaking it is so great.

The United States has a higher rate of teenage pregnancy than any other developed country (AGI, 2001; Teitler, 2002), as Figure 8.9 illustrates. This is not because adolescents in the United States have more sex than those in other countries. The pregnancy rate among adolescents in Canada is less than half the rate in the United States, even though the percentages of adolescents in the two countries who are sexually active are nearly identical (AGI, 2001). Adolescents in European countries such as Sweden and Denmark are as likely as adolescents in the United States to be sexually active but much less likely to become pregnant (Avery & Lazdane, 2008; Teitler, 2002).

The main reason American adolescents have high rates of teenage pregnancy may be that there is no clear cultural message regarding adolescent sexuality (Males, 2011). The semirestrictive view of adolescent sexuality prevails: Adolescent sex is not strictly forbidden, but neither is it widely accepted. As a consequence, most American adolescents have sexual intercourse at some time before they reach the end of their teens, but often those who are sexually active are not comfortable enough with their sexuality to acknowledge that they are having sex and to prepare for it responsibly by obtaining and using contraception. However, rates of teen pregnancy in the United States have declined steeply in the past 2 decades, especially among African Americans (Males, 2011). This may be because the threat of HIV/AIDS has made it more acceptable in the United States to talk to adolescents about sex and contraception and to provide them with sex education through the schools.

**SEXUAL ORIENTATION** Adolescence is when most people first become fully aware of their sexual orientation, meaning their tendencies of sexual attraction. In American society, 2% of adolescents self-identify as lesbian, gay, or bisexual (LGB) (Michael et al., 1995; Savin-Williams, 2005). In the past in Western cultures, and still today in many of the world’s cultures, most people would keep this knowledge to themselves all their lives because they would be stigmatized and persecuted if they disclosed the truth. Today in most Western cultures, however, LGBs commonly engage in a process of coming out, which involves a person’s recognizing his or her own sexual identity and then disclosing the truth to friends, family, and others (Flowers & Buston, 2001; Savin-Williams, 2001). Awareness of an LGB sexual identity usually begins in early adolescence, with disclosure to others coming in late adolescence or emerging adulthood (Floyd & Bakeman, 2006).

Given the pervasiveness of homophobia (fear and hatred of homosexuals) that exists in many societies (Baker, 2002), coming to the realization of an LGB identity can be traumatic for many adolescents. Lesbian, gay, or bisexual adolescents are often the targets of bullying when peers learn of their sexual identity (Mishna et al., 2009). Many parents respond with dismay or even anger when they learn that their adolescents are lesbian, gay, or bisexual. When parents reject LGB adolescents after learning of their sexual identity, the consequences are dire. One study found that LGB adolescents who experienced parental rejection were 8 times more likely to report having attempted suicide, 6 times more likely to report high levels of depression, 3 times more likely to use illegal drugs, and 3 times more likely to have sex without contraception.

sexual orientation a person’s tendencies of sexual attraction

coming out for homosexuals, the process of acknowledging their homosexuality and then disclosing the truth to their friends, family, and others

homophobia fear and hatred of homosexuals
more likely to have had unprotected sex than LGB adolescents whose parents were more accepting of their sexual orientation (Ryan, 2009).

Nevertheless, in recent years there has been a noticeable change in Western attitudes toward LGBs, constituting “a dramatic cultural shift” toward more favorable and tolerant perceptions, according to Ritch Savin-Williams (2005), a prominent researcher on LGB adolescents. Savin-Williams notes changes in popular culture, such as favorable portrayals of LGBs in television, movies, and popular songs. He also cites a national survey of 13- to 19-year-olds in the United States showing that the percentage who “don’t have any problem” with homosexuality tripled over the past decade, to 54%. Of course, 54% is barely half and leaves plenty of room for continued homophobia and abuse, but it does show that public attitudes toward LGBs are becoming less hostile. Notably, the average age of coming out has declined in recent decades, from 21 in the 1970s to 16 in the present, perhaps because of growing acceptance of homosexuality (Savin-Williams, 2006). Several European countries and American states now allow same-sex marriages, another sign that people in the West are becoming more accepting of variations in sexual orientation.

**Schools: Secondary Education Around the World**

Compare and contrast the secondary education systems and academic performance of developed countries and developing countries.

There is a great deal of diversity worldwide in the kinds of secondary schools (middle schools and high schools) that adolescents attend. World regions also vary in how likely adolescents are to attend secondary school at all. There is an especially sharp contrast between developed countries and developing countries. Virtually all adolescents are enrolled in secondary school in developed countries. In contrast, only about 50% of adolescents in developing countries attend secondary school (see Map 8.1). Furthermore, as we will see in Chapter 9, “tertiary education” (college and university) is obtained by about half of emerging adults in developed countries but is only available to the elite (and wealthy) 10% in developing countries.
INTERNATIONAL VARIATIONS IN SECONDARY SYSTEMS The United States is unusual in having only one institution—the “comprehensive” school—as the source of secondary education. Canada and Japan also have comprehensive secondary schools as the norm, but most other countries have several different kinds of schools that adolescents may attend. European countries usually have three types of secondary schools (Arnett, 2002b). About half of adolescents attend a college-preparatory school that offers a variety of academic courses. The goal is general education rather than training for any specific profession. About one-fourth of adolescents attend a vocational school, where they learn the skills involved in a specific occupation such as plumbing or auto mechanics. Some European countries also have a third type of secondary school, a professional school devoted to teacher training, the arts, or some other specific purpose (Flammer & Alsaker, 2001). About one-fourth of European adolescents usually attend this type of school.

One consequence of the European system is that adolescents must decide at a relatively early age what direction to pursue for their education and occupation. At age 15 or 16 adolescents choose which type of secondary school they will enter, and this is a decision that is likely to have an enormous impact on the rest of their lives. Usually the decision is made by adolescents in conference with their parents and teachers, based on adolescents’ interests as well as on their school performance (Motola et al., 1998). Although adolescents sometimes change schools after a year or two, and adolescents who attend a vocational school sometimes attend university, these switches are rare.

In contrast to developed countries, where attending secondary school is virtually universal for adolescents and the schools are well funded, in developing countries secondary education is often difficult to obtain and relatively few adolescents stay in school until graduation. A number of common themes recur in accounts of secondary education in developing countries (Lloyd, 2005; Lloyd et al., 2008). All developing countries have seen rising rates of enrollment in recent decades. That’s about where the good news ends. Many of the schools are poorly funded and overcrowded. Many countries have too few teachers, and the teachers they have are insufficiently trained. Often families have to pay for secondary education, a cost they find difficult to afford, and families may have to pay for books and other educational supplies as well. There tends to be one education for the elite—in exclusive private schools and well-funded universities—and a much inferior education for everyone else.

What is most striking, when comparing secondary education in developed countries and developing countries, is how unequal educational opportunities are between the two. If you happen to be born in a developing country, you are likely to get an education through primary school but unlikely to have the resources to finish secondary school, and your chances of attending college are very small—especially if you are a girl. In contrast, if you happen to be born in a developed country, it is likely that you will finish secondary school and it is quite likely that you will have the opportunity to attend college if you wish—especially if you are a girl (Arnett, 2002b; National Center for Education Statistics [NCES], 2011). However, it should be added that if you are a member of an ethnic minority in a developed country and your family has a low income, your chances of finishing secondary school may be only about one-half, no higher than for adolescents in many developing countries (NCES, 2011).

Education is, in all parts of the world, the basis of many of the good things in life, from income level to physical and mental health (Lloyd, 2005; Lloyd et al., 2008; Stromquist, 2007). Yet for the majority of the world’s adolescents and emerging adults, their educational fate was already largely determined at birth, simply on the basis of where they were born.

INTERNATIONAL COMPARISONS IN ACADEMIC PERFORMANCE For about 30 years, there have been international studies that compare adolescents on academic performance. Figure 8.10 shows the most recent performance of adolescents in various countries around the world on eighth-grade achievement.
tests. The pattern of results is similar across reading, math, and science. In all three areas, the pattern is the same as in middle childhood, as discussed in Chapter 7: The affluent developed countries tend to perform better than the developing countries, which tend to perform below the average.

In math and science, Japan and South Korea are consistently at the top. As mentioned in Chapter 7, there are notable differences between Western and Eastern schools. In adolescence as at earlier ages, Eastern high schools focus almost exclusively on rote learning (memorizing information through repetition), whereas Western schools place more emphasis on promoting critical thinking and creativity (Kember & Watkins, 2010). Another crucial difference is that in the East the consequences of school performance in adolescence are much more serious and enduring. Adolescents in most Eastern countries have to take entrance exams for both high school and college. These two exams have a great influence on young people’s occupational fate for the rest of their lives, because in Asian countries, obtaining a job is based primarily on the status of the schools a person has attended.

To prepare for the entrance exams, adolescents in Eastern countries are urged to apply themselves seriously at school and in their homework. In addition, from middle childhood through adolescence many of them attend “cram schools” after school or receive instruction from private tutors (Takahashi & Takeuchi, 2007). This system goes a long way toward explaining the high level of performance of children and adolescents in Eastern countries. They work intensely on their schoolwork because the stakes are so high, much higher than in Western countries, where both the higher education system and the job market are much more open and much less about people’s occupational future is determined by the time they leave high school. Many adolescents (and their parents) in Western countries want to do well in secondary school so that they gain entrance into a top university, but there are many, many colleges and universities, and people who go to colleges and universities below the top tier still have a wide range of occupational options available if they perform well.

With longer school days, a longer school year, cram schools, and private tutors, Eastern adolescents have far less time for after-school leisure and informal socializing with friends than American adolescents do (Chaudhary & Sharma, 2012). In recent decades some Asian countries have reduced the length of the school day and cut the number of school days per week from 6 to 5, but the average school day remains long and cram schools remain the norm (Takahashi & Takeuchi, 2007).

Work

Summarize the typical forms of adolescent work in developing countries and developed countries, and name the features of apprenticeships in Europe.

Adolescents’ new physical, cognitive, and social abilities make them valuable as potential workers all around the world. However, the kind of work they do varies sharply between developing countries and developed countries.

ADOLESCENT WORK IN DEVELOPING COUNTRIES As we have seen in previous chapters, for children in developing countries, work often begins long before adolescence. Within the family, from early childhood onward, they begin to contribute to the work required in daily life, helping with tasks such as cleaning, cooking, gathering firewood, and caring...
Adolescents in developing countries often do the same types of difficult, dangerous, and poorly paid work as younger children do, as described in Chapter 7, but one type of work that usually begins in adolescence is prostitution. Estimates of the number of adolescent prostitutes in developing countries vary, but it is widely agreed that adolescent prostitution is a pervasive and growing problem, especially in Asia, and within Asia especially in Thailand (Basu & Chau, 2007; ILO, 2002). Of course, adolescent prostitutes exist in developed countries as well, but the problem is much more widespread in developing countries.

Adolescent girls in these countries become prostitutes in several ways. Some are kidnapped and taken to a separate country. Isolated in a country where they are not citizens and where they do not know the language, they are highly vulnerable and dependent on their kidnappers. Some are rural adolescent girls who are promised jobs in restaurants or domestic service, then forced to become prostitutes once the recruiter takes them to their urban destination. Sometimes parents sell the girls into prostitution, out of desperate poverty or simply out of the desire for more consumer goods (ILO, 2004). A large proportion of the customers in Asian brothels are Western tourists, leading the United States and several European countries to pass laws permitting prosecution of their citizens for sexually exploiting young adolescent girls in other countries.

**ADOLESCENT WORK IN DEVELOPED COUNTRIES**

What do you remember about your jobs in adolescence, if you worked at that time? I still remember a lot about mine, even though they were mostly forgettable. Like many adolescents, I mostly worked in low-paying restaurant jobs, mainly washing dishes and cooking hamburgers, French fries, and other greasy items. I usually didn’t last long on these jobs. On one of my dishwashing jobs, the third day of work a friend and I discovered that creative use of the sprayers intended to rinse the dishes could quickly turn our boring dishwashing task into an exciting game of Spray Wars. Of course, we were fired immediately.

But what did we care? There were plenty of other jobs around, and for us not much depended on working except how much money would be available for having fun on the weekend. For adolescents in developed countries, work is usually not done as part of contributing to family survival but as a way of supporting an active leisure life. About 80% of adolescents in the United States and Canada hold at least one part-time job by the end of high school (Barling & Kelloway, 1999; Lee & Staff, 2007). Very little of the money they earn goes to their family’s living expenses or saving for their future education (although adolescents in ethnic minority groups are more likely to contribute to their families; Fuligni, 2011; Mortimer, 2003). For the most part, the money goes toward purchases for themselves, here and now: stylish clothes, music, car payments and gas, concert tickets, movies, eating out—and alcohol, cigarettes, and other drugs (Greenberger & Steinberg, 1986; Mortimer et al., 2004).

Unlike adolescents in developing countries, the work done by adolescents in developed countries does little to prepare them for the kind of work they are likely to be doing as adults. For example, the majority of jobs held by American and Canadian adolescents in high school involve restaurant work or retail sales (Loughlin & Barling, 1999; Staff et al., 2004). Consequently, few adolescents see their high school jobs as the basis for a future career (Mortimer et al., 2008).

Not only does working part-time appear not to do adolescents much good in most developed countries, it can be harmful to their development in a variety of ways. The amount of time worked per week is a crucial variable. Most studies find that up to 10 hours a week, working at a part-time job has little effect on adolescents’ development. However, beyond 10 hours a week problems arise, and beyond 20 hours a week the problems become considerably worse. In the United States, employed high school sophomores work an average...
of 15 hours per week, and employed high school seniors work 20 hours per week (Barling & Kelloway, 1999).

Beyond 10 hours a week, the more adolescents work the lower their grades, the less time they spend on homework, the more they cheat on their schoolwork, the less committed they are to school, and the lower their educational aspirations (Marsh & Kleitman, 2005). Similarly, reports of psychological symptoms jump sharply for adolescents working more than 10 hours a week and continue to rise among adolescents working 20 hours a week or more (Frone, 1999; Lee & Staff, 2007). Canadian research reports that when adolescents take on demanding jobs, they reduce their sleep by an hour per night and eliminate nearly all sports activities (Sears et al., 2006). Adolescents who work are also more likely to use alcohol, cigarettes, and other drugs, especially if they work more than 10 hours a week (Bachman et al., 2003; Longest & Shanahan, 2007; Wu et al., 2003). A national study of adolescents in Finland also found numerous negative effects of working more than 20 hours a week (Kuovonen & Kivivuori, 2001).

Although working part-time is related to a variety of negative outcomes, a case can also be made in favor of adolescent work. Adolescents see many benefits from their work, as Table 8.3 shows (Aronson et al., 1996; Mortimer, 2003). They believe they gain a sense of responsibility from working, improve their abilities to manage money, develop better social skills, and learn to manage their time better. Over 40% believe that their jobs have helped them develop new occupational skills, in contrast to the portrayal of adolescent work as involving nothing but dreary tasks (although we might note that 40%, while substantial, is still a minority).

### Table 8.3 Percentages of Adolescents Indicating Benefits and Costs of Employment

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Girls</th>
<th>Boys</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsibility</td>
<td>90</td>
<td>80</td>
</tr>
<tr>
<td>Money management</td>
<td>66</td>
<td>57</td>
</tr>
<tr>
<td>Learned social skills</td>
<td>88</td>
<td>78</td>
</tr>
<tr>
<td>Work experience/skill development</td>
<td>43</td>
<td>42</td>
</tr>
<tr>
<td>Work ethics</td>
<td>73</td>
<td>68</td>
</tr>
<tr>
<td>Independence</td>
<td>75</td>
<td>78</td>
</tr>
<tr>
<td>Time management</td>
<td>79</td>
<td>75</td>
</tr>
<tr>
<td>Learned about life/shaped future</td>
<td>26</td>
<td>29</td>
</tr>
</tbody>
</table>

**Problems**

<table>
<thead>
<tr>
<th>Problems</th>
<th>Girls</th>
<th>Boys</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less leisure time</td>
<td>49</td>
<td>49</td>
</tr>
<tr>
<td>Lower grades</td>
<td>28</td>
<td>25</td>
</tr>
<tr>
<td>Less time for homework</td>
<td>48</td>
<td>49</td>
</tr>
<tr>
<td>Think about work during class</td>
<td>78</td>
<td>11</td>
</tr>
<tr>
<td>Fatigue</td>
<td>51</td>
<td>45</td>
</tr>
</tbody>
</table>

Source: Aronson et al. (1996), Table 2.10.

**APPRENTICESHIPS IN EUROPE** Although most employment in adolescence in the United States and Canada has little relation to later jobs, many European countries have a long tradition of apprenticeships that provides excellent preparation for adult occupations. In an apprenticeship, an adolescent “novice” serves under contract to a “master” who has substantial experience in a profession, and through working under the master the novice learns the skills required (Hamilton & Hamilton, 2000, 2006; Vazsonyi & Snider, 2008). Although apprenticeships originally began centuries ago in craft professions such as carpentry and blacksmithing, today they are undertaken to prepare for a wide range of professions, from auto mechanics and carpenters to police officers, computer technicians, and child-care workers (Fuller et al., 2005). Apprenticeships are especially common in central and northern Europe. For example, Germany’s apprenticeship program includes over 60% of all 16- to 18-year-olds (Heckhausen & Tomasik, 2002), and Switzerland’s includes about one-third of the adolescents who do not attend college after secondary school (Vazsonyi & Snider, 2008).

Common features of apprenticeship programs are (Hamilton & Hamilton, 2006)

- entry at age 16, with the apprenticeship lasting 2 to 3 years;
- continued part-time schooling while in the apprenticeship, with the school curriculum closely connected to the training received in the apprenticeship;
- training that takes place in the workplace, under real working conditions; and
- preparation for a career in a respected profession that provides an adequate income.

This kind of program requires close coordination between schools and employers, so that what adolescents learn at school will complement and reinforce what is being learned in their apprenticeship. This means that schools consult employers with

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**Apprenticeships are common in Europe. These adolescents are apprenticing at a German power plant company.**
Media Use

Explain the function of media use in adolescents’ lives and apply the Media Practice Model to the playing of electronic games.

No account of adolescent development would be complete without a description of the media they use. Recorded music, television, movies, magazines, electronic games, mobile phones, and the Internet are part of the daily environment for nearly all adolescents currently growing up in developed countries (and increasingly in developing countries as well). Studies across developed countries have found that adolescents use media for about 6 hours a day (Flammer et al., 1999; Roberts et al., 2005; Stevenson & Zusho, 2002). About one-fourth of their media use involves multiple media—listening to music while playing an electronic game, for example, or reading a magazine while watching TV (Roberts et al., 2005).

A MODEL OF ADOLESCENTS’ MEDIA USES

Spending 6 hours a day on anything means that it is a big part of your life, and many concerns have been expressed about adolescents’ media use (Arnett, 2007). Although claims are often made about the harmful effects of media on adolescents, their media use is more complex than simple cause and effect. A helpful model of the functions media play in the lives of adolescents has been presented by Jane Brown and her colleagues (Brown, 2006; Brown et al., 2002; Steele, 2006). An illustration of their model, called the Media Practice Model, is shown in Figure 8.11.

As the figure shows, the model proposes that adolescents’ media use is active in a number of ways. Adolescents do not all have the same media preferences. Rather, each adolescent’s identity motivates the selection of media products. Paying attention to certain media products leads to interaction with those products, meaning that the products are evaluated and interpreted. Then adolescents engage in application of the media content they have chosen. They may incorporate this content into their identities—for example, adolescents who respond to cigarette advertisements by taking up smoking—or they may resist the content—for example, adolescents who respond to cigarette advertisements by rejecting them as false and misleading. Their developing identity then motivates new media selections, and so on. This model reminds us that adolescents actively select the media they use, and they respond to media content in diverse ways depending on how they interpret it and how it relates to them personally.

Adolescents use media for many different purposes, but as with younger children, the focus of research on their media use has mainly been on concerns about negative effects. In the following discussion, we examine electronic games, which have been the focus of some of these concerns. (Chapter 9 will cover the use of mobile phones and social media such as Facebook.)

ELECTRONIC GAMES

A relatively new type of media use among adolescents is electronic games, usually played on a computer or a handheld device. This form of media use has quickly become popular among adolescents, especially boys (Olson et al., 2008). In a study of middle school students in the United States (Olson et al., 2007), 94% reported having played electronic games during the preceding 6 months. Of those who played electronic games, one-third of boys and 11% of girls said they played nearly every day. A study in 10 European
countries and Israel found that children ages 6 to 16 averaged more than a half hour per day playing electronic games (Beentjes et al., 2001).

The majority of adolescents’ favorite electronic games involve violence. A content analysis of nearly 400 of the most popular electronic games found that 94% contained violence (Haninger & Thompson, 2004). A number of studies have examined the relation between violent electronic games and aggressiveness (Anderson et al., 2007; Brake, 2006; Funk et al., 1999; Funk et al., 2002; Funk et al., 2005). One study asked boys themselves about the effects of playing violent electronic games (Olson et al., 2008). The interviews showed that the boys (ages 12–14) used electronic games to experience fantasies of power and fame, and to explore what they perceived to be exciting new situations. The boys enjoyed the social aspect of electronic game playing, in playing with friends and talking about the games with friends. The boys also said they used electronic games to work through feelings of anger or stress, and that playing the games had a cathartic effect on these negative feelings. They did not believe that playing violent electronic games affected them negatively.

It seems likely that with electronic games, as with other violent media, there is a wide range of individual differences in responses, with young people who are already at risk for violent behavior being most likely to be affected by the games, as well as most likely to be attracted to them (Funk, 2003; Slater et al., 2003; Unsworth et al., 2007). With electronic games as with television, violent content may rarely provoke violent behavior but more often influence social attitudes. For example, playing violent electronic games has been found to lower empathy and raise the acceptability of violent responses to social situations (Anderson, 2004; Funk, 2005; Funk et al., 2005).

WHAT HAVE YOU LEARNED?

1. Why does conflict with parents increase during adolescence?
2. How is intimacy an important part of adolescent friendships?
3. What are some reasons that the pregnancy rate in the U.S. is higher than in other developed countries?
4. How can we explain the higher academic performance of adolescents in Eastern countries compared to adolescents in Western countries?
5. What are some negative impacts of adolescent work in developed countries?
6. Is there any relation between playing violent electronic games and aggressive behavior in adolescence? Why or why not?

Problems and Resilience

After the relatively calm period of middle childhood, a variety of types of problems rise in prevalence during adolescence, including crime and delinquency and depressed mood. (Automobile accidents will be covered in Chapter 9.) However, most adolescents make it through this life stage without serious problems, and many adolescents exhibit resilience in the face of difficult conditions.

Crime and Delinquency

Rates of crime begin rising in the mid-teens and peak at about age 18, then decline steadily. The great majority crimes are committed by young people—mostly males—who are between the ages of 12 and 25 (Eisner, 2002). In the West, this finding is remarkably consistent...
over a period of greater than 150 years. Figure 8.12 shows the age–crime relationship at two points, one in the 1840s and one relatively recent. At any point before, after, or in between these times, in most countries, the pattern would look very similar (Eisner, 2002; Gottfredson & Hirschi, 1990; Wilson & Herrnstein, 1985). Adolescents and emerging adults are not only more likely than children or adults to commit crimes but also more likely to be the victims of crimes (Cohen & Potter, 1999; Eisner, 2002).

What explains the strong and consistent relationship between age and crime? One theory suggests that the key to explaining the age–crime relationship is that adolescents and emerging adults combine increased independence from parents and other adult authorities with increased time with peers and increased orientation toward peers (Wilson & Herrnstein, 1985). A consistent finding of research on crime is that crimes committed by young people in their teens and early twenties usually take place in a group, in contrast to the solitary crimes typical of adult offenders (Dishion & Dodge, 2005). Crime is an activity that in some adolescent cliques is encouraged and admired (Dishion et al., 1999). However, this theory does not explain why it is mainly boys who commit crimes, and girls, who also become more independent from parents and more peer-oriented in adolescence, rarely do.

Most surveys find that over three-fourths of adolescent boys commit at least one criminal act some time before the age of 20 (Loebert & Burke, 2011; Moffitt, 2003). However, there are obvious differences between committing one or two acts of minor crime—vandalism or underage drinking, for example—and committing crimes frequently over a long period, including more serious crimes such as rape and assault. Ten percent of young men commit over two-thirds of all offenses (Broidy et al., 2003). What are the differences between adolescents who commit an occasional minor violation of the law and adolescents who are at risk for more serious, long-term criminal behavior?

Terrie Moffitt (2003, 2007) has proposed a provocative theory in which she distinguishes between adolescence-limited delinquency and life-course-persistent delinquency. In Moffitt’s view, these are two distinct types of delinquency, each with different motivations and different sources. However, the two types may be hard to distinguish from one another in adolescence, when criminal offenses are more common than in childhood or

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**Figure 8.12**  *Age–Crime Relationship in (a) 1842 and (b) 1992 Why does crime peak in the late teens?*

*Source: Gottfredson & Hirschi (1990), p. 125; Osgood (2009)*

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Watch the Video Risk Taking and Delinquency at MyDevelopmentLab
adulthood. The way to tell them apart, according to Moffitt, is to look at behavior before adolescence.

**Life-course-persistent delinquents (LCPDs)** show a pattern of problems from birth onward. Moffitt believes their problems originate in neuropsychological deficits that are evident in a difficult temperament in infancy and a high likelihood of attention-deficit/hyperactivity disorder (ADHD) and learning disabilities in childhood. Children with these problems are also more likely than other children to grow up in a high-risk environment (e.g., low-income family, single parent), with parents who have a variety of problems of their own. Consequently, their neurological deficits tend to be made worse rather than better by their environments. When they reach adolescence, children with the combination of neurological deficits and a high-risk environment are highly prone to engage in criminal activity. Furthermore, they tend to continue their criminal activity long after adolescence has ended, well into adulthood.

The **adolescence-limited delinquents (ALDs)** follow a much different pattern. They show no signs of problems in infancy or childhood, and few of them engage in any criminal activity after their mid-twenties. It is just during adolescence—actually, adolescence and emerging adulthood, ages 12 to 25—that they have a period of occasional criminal activity, breaking the law with behavior such as vandalism, theft, and use of illegal drugs.

As we have seen earlier in the chapter, the brain is still a long way from maturity during adolescence. Does the immaturity of the brain help explain why rates of delinquency and some other types of risk behavior are higher in adolescence than at younger ages? This theory has been proposed by researchers who claim that neurological studies show that the brain’s frontal lobe areas in charge of judgment and impulse control are not mature until at least the mid-twenties; consequently, during adolescence behavior is governed more by emotions and less by reason than in later years (Steinberg, 2010). However, other researchers dispute this conclusion (Fisher et al., 2010). Some studies have found that the brain development of adolescents who engage in risky behavior is actually more mature in some ways than in their less risk-prone peers (Berns et al., 2011). Others point out that rates of most types of risk behavior continue to increase into the early twenties; brain development also increases during this time, so immaturity of the brain cannot explain the increase in risk behavior during these years (Males, 2010). It should also be noted that boys and girls are highly similar in brain development during adolescence, yet boys commit far more crimes.

Delinquency has often proven to be resistant to change in adolescence, but one successful approach has been to intervene at several levels, including the home, the school, and the neighborhood. This is known as the **multisystemic approach** (Borduin et al., 2003; Henggler et al., 2007; Saldana & Henggler, 2006; Swenson et al., 2005). Programs based on this approach include parent training, job training and vocational counseling, and the development of neighborhood activities such as youth centers and athletic leagues. The goal is to direct the energy of delinquents into more socially constructive directions. The multisystemic approach has now been adopted by youth agencies in 32 states and 12 countries (Schoenwald et al., 2008). As **Figure 8.13** illustrates, programs using this approach have been shown to be effective in reducing arrests and out-of-home placements among delinquents.

**Figure 8.13 • Multisystemic Approach to Delinquency** Why is MST more effective than other types of interventions for delinquency?

(Alexander, 2001; Henggler et al., 2007; Ogden & Amlund, 2006). Furthermore, multisystemic programs have been found to be cheaper than other programs, primarily because they reduce the amount of time that delinquent adolescents spend in foster homes and detention centers (Alexander, 2001).

**Depression**

Do you remember feeling sad at times during your teen years? As we have seen earlier in the chapter, studies of adolescents’ emotional lives have found that they experience sadness and other negative emotions much more frequently than do younger children or adults.

Psychologists make distinctions between different levels of depression (Compas et al., 1998). **Depressed mood** is a term for a temporary period of sadness, without any related symptoms. The most serious form of depression is **major depressive disorder** which includes a more enduring period of sadness along with other symptoms such as frequent crying, feelings of worthlessness, and feeling guilty, lonely, or worried. Major depressive disorder may also include symptoms such as difficulty sleeping and changes in appetite (American Psychiatric Association [APA], 1994).

Although a diagnosis of major depressive disorder is relatively rare in adolescence, several studies find that adolescents have higher rates of depressed mood than adults or children (Compas et al., 1998; Petersen et al., 1993; Saluja et al., 2004). Rates of depressed mood rise steeply from age 10 and reach a “mid-adolescence peak” about ages 15 to 17, then decline in the late teens and twenties (Petersen et al., 1993).

A variety of studies have shown that the proportion of adolescents who report experiencing depressed mood within the past 6 months is about 35% (Petersen et al., 1993; Saluja et al., 2004). In contrast, rates of major depressive disorder among adolescents range in various studies from 3 to 7% (Achenbach et al., 1991; Cheung et al., 2005; Compas et al., 1993), which is about the same rate found in studies of adults. The most common causes of depressed mood tend to be common experiences among adolescents: conflict with friends or family members, disappointment or rejection in love, and poor performance in school (Costello et al., 2008; Larson & Richards, 1994).

One of strongest risk factors for all types of depression in adolescence and beyond is simply being female (Hammack et al., 2004). A variety of explanations have been proposed. Some scholars have suggested that body image concerns provoke depression. There is substantial evidence that adolescent girls who have a poor body image are more likely than other girls to be depressed (Graber et al., 2007; Marcotte et al., 2002; Wichstrom et al., 1999).

For adolescents as for adults, the two main types of treatment for depression are antidepressant medications and psychotherapy. Recent studies indicate that newly developed antidepressants such as Prozac are highly effective in treating adolescent depression (Bostic et al., 2005; Brent, 2004; Cohen et al., 2004; Emslie et al., 2002; Michael & Crowley, 2002). The combination of the newest medications and psychotherapy appear to be the most effective approach to treating adolescent depression. In one recent major study of 12- to 17-year-olds at thirteen sites across the United States who had been diagnosed with major depression, 71% of the adolescents who received both Prozac and psychotherapy experienced an improvement in their symptoms (Treatment for Adolescents with Depression Study Team, 2004, 2007). Improvement rates for the other groups were 61% for Prozac alone, 43% for psychotherapy alone, and 35% for the placebo group.
**Resilience in Adolescence**

Define resilience and name the protective factors that are related to resilience in adolescence.

When adolescents develop problems, the source of the problems can often be traced to risk factors, such as poverty, poor family relationships, abusive or neglectful parenting, and inadequate schools. However, there are also many adolescents who face dire conditions yet manage to adapt and function well. Resilience is the term for this phenomenon, defined as “good outcomes in spite of serious threats to adaptation and development” (Masten, 2001, p. 228). Sometimes “good outcomes” are measured as notable academic or social achievements, sometimes as psychological traits such as high well-being or self-esteem, and sometimes as the absence of notable problems. Young people who are resilient are not necessarily high achievers who have some kind of extraordinary ability. More often they display what resilience researcher Ann Masten calls the “ordinary magic” of being able to function reasonably well despite being faced with unusually difficult circumstances (Masten, 2001, p. 227).

Resilience is promoted by protective factors that enable adolescents to overcome the risk factors in their lives. Some of the most important protective factors identified in resilience research are high intelligence, physical attractiveness, parenting that provides an effective balance of warmth and control, and a caring adult “mentor” outside the family. For example, high intelligence may allow an adolescent to perform well academically despite going to a low-quality school and living in a disorderly household (Masten et al., 2006). Effective parenting may help an adolescent have a positive self-image and avoid antisocial behavior despite growing up in poverty and living in a rough neighborhood (Brody & Flor, 1998). A mentor may foster high academic goals and good future planning in an adolescent whose family life is characterized by abuse or neglect (Rhodes & DuBois, 2008).

One classic study followed a group of infants from birth through adolescence (Werner & Smith, 1982, 1992, 2001). It is known as the Kauai (KOW-ee) study, after the Hawaiian island where the study took place. The Kauai study focused on a high-risk group of children who had 4 or more risk factors by age 2, such as problems in physical development, parent’s marital conflict, parental drug abuse, low maternal education, and poverty. Out of this group, there was a resilient subgroup that showed good social and academic functioning and few behavior problems by ages 10–18. Compared with their less resilient peers, adolescents in the resilient group were found to benefit from several protective factors, including one well-functioning parent, higher intelligence, and higher physical attractiveness.

*A mentor can be a source of resilience for adolescents at risk for problems. Here, an adolescent girl and her mentor in the Big Sisters program.*
More recent studies have supported the Kauai findings but also broadened the range of protective factors (Masten, 2007). Religiosity has become recognized as an especially important protective factor. Adolescents who have a strong religious faith are less likely to have problems such as substance abuse, even when they have grown up in a high-risk environment (Howard et al., 2007; Wallace et al., 2007).

**WHAT HAVE YOU LEARNED?**

1. How does spending more time with peers influence adolescent crime?
2. What is the multisystemic approach to delinquency and how successful has it been?
3. Why are females more likely than males to be depressed?
4. What is a protective factor that enables adolescents to overcome risk factors in their lives?

**Section 3 VIDEO GUIDE Adolescent Conflict with Parents Across Cultures (Length: 8:19)**

Adolescents from a variety of cultures are interviewed in this video. They discuss their changing relationships with their parents as well as with their friends.

1. One common thread across all of the interviewed teens was that they keep secrets from their elders. Do you feel that this is a universal trend among teens? Why or why not?
2. The narrator tells us that interdependence is valued in the Mexican village where one of the female teens is from. Do you feel that U.S. families could impact their teen’s lives if they placed a higher value on interdependence rather than independence? Explain.
3. In comparing the adolescents interviewed in this clip, do you feel that gender plays an important role in parent-child conflict?

[Watch the Video Adolescent Conflict with Parents Across Cultures at MyDevelopmentLab]
SECTION 1 PHYSICAL DEVELOPMENT

8.1 List the physical changes that begin puberty.
Increases in sex hormones lead to the development of primary and secondary sex characteristics. Recent findings in brain research show that the adolescent brain develops in some surprising ways, including a burst of overproduction (followed by synaptic pruning) and increased myelination.

8.2 Describe the normative timing of pubertal events, cultural variations, and how being early or late influences emotional and social development.
The timing of pubertal events is determined partly by genes, but puberty generally begins earlier in cultures with adequate nutrition and medical care. Early maturing girls are at risk for a wide variety of problems, in part because they draw the attention of older boys.

8.3 Identify the main gender differences in puberty rituals worldwide.
Most non-Western cultures mark puberty with a community ritual. For boys, puberty rituals often entail tests of strength and endurance, whereas for girls puberty rituals center around menarche.

8.4 Describe the prevalence, symptoms, and treatment of eating disorders.
Eating disorders are most prevalent in adolescence and emerging adulthood, and occur mainly among females. Prevalence of symptoms is higher; in some Western countries one-third of girls report eating disordered behavior such as fasting for more than 24 hours and using laxatives to control weight. Treatments for eating disorders have had mixed success.

8.5 Classify adolescent substance use into four categories.
Adolescents’ substance use can be classified as experimental, social, medicinal, or addictive. Adolescents whose substance use is addictive experience withdrawal symptoms when they reduce or stop their use of the substance.

SECTION 2 COGNITIVE DEVELOPMENT

8.6 Explain the features of hypothetical-deductive reasoning and give an example of how it is assessed.
Hypothetical-deductive reasoning entails the ability to test solutions to a problem systematically, altering one variable while holding the others constant. The pendulum problem is one way Piaget tested the attainment of formal operations.

8.7 Recall the two major critiques of Piaget’s theory of formal operations.
Piaget proposed that when adolescents reach formal operations they use it for all cognitive activities; however, research has shown that both adolescents and adults tend to use formal operations in some areas of their lives but not in others. Piaget also proposed that formal operations is a universal stage of cognitive development, but its prevalence appears to vary across cultures as measured by standard tasks, although it may be used in the course of culturally specific daily activities.

8.8 Summarize the major changes in attention and memory that take place from middle childhood to adolescence.
Information processing abilities improve in adolescence, notably selective attention, divided attention, and use of mnemonic devices.
8.9 Define the imaginary audience and the personal fable and explain how they reflect egocentrism in adolescence.

The imaginary audience is the exaggerated belief that others are paying intense attention to one’s appearance and behavior. The personal fable is the belief that there is something special and unique about one’s personal destiny. The imaginary audience results from adolescents’ egocentric inability to distinguish their thoughts about themselves from their thoughts about others’ thoughts.

8.10 Produce an example of the zone of proximal development and scaffolding involving adolescents.

Scaffolding and the zone of proximal development are evident in adolescence, when the skills necessary to adult work are being learned. For example, male adolescents in the Dioula culture in Ivory Coast are first taught simple weaving patterns but learn increasingly complex patterns as their skills improve in response to correction and instruction by their fathers, until they can weave entirely by themselves.

KEY TERMS

- formal operations p. 355
- hypothetical-deductive reasoning p. 355
- divided attention p. 358
- metacognition p. 359
- adolescent egocentrism p. 359
- personal fable p. 359
- imaginary audience p. 359

SECTION 3  EMOTIONAL AND SOCIAL DEVELOPMENT

8.11 Summarize the results of the ESM studies with respect to adolescent emotionality.

Experience Sampling Method (ESM) studies show greater mood swings in adolescence than in middle childhood or adulthood. Also, there is a decline in overall emotional state from fifth grade through 10th grade.

8.12 Describe how self-understanding, self-concept, and self-esteem change during adolescence.

Self-development in adolescence is complex and may include an ideal self, a possible self, a feared self, and a false self along with an actual self. Overall self-esteem often declines in adolescence, especially for girls. Self-concept includes a variety of aspects in adolescence, but overall self-concept is strongly influenced by self-perceptions of physical attractiveness.

8.13 Compare and contrast the cultural patterns in gender expectations for girls and boys in adolescence.

Adolescence is a time of gender intensification, as young people become more aware of the gender expectations of their culture. Boys in many cultures risk becoming a failed man unless they learn to provide, protect, and procreate. Girls are generally believed to reach womanhood when they reach menarche.

8.14 Discriminate between Kohlberg’s theory of moral development and Jensen’s worldviews theory.

Kohlberg proposed three universal levels of moral development: preconventional reasoning, conventional reasoning, and postconventional reasoning. According to Jensen, morality develops in culturally-diverse ways based on Ethics of Autonomy, Community, and Divinity.

8.15 Describe the cultural variations in religious beliefs during adolescence as well as the sources and outcomes of religiosity within cultures.

American adolescents are more religious than adolescents in other developed countries. In general, higher religiosity is related to a variety of positive features of adolescents’ development, such as better relationships with parents and lower rates of substance use.

8.16 Summarize the cultural variations in adolescents’ relationships with parents, siblings, and extended family.

Adolescence is a time of increased conflict with parents in cultures that promote autonomy. Sibling conflict is not as high in adolescence as in earlier life stages, but adolescents have more conflict with siblings than in any of their other relationships. Relations with grandparents tend to be close and positive worldwide.

8.17 Describe cultural variations in adolescents’ relationships with friends, and characterize their interactions with peers.

In most cultures, adolescents spend less time with family and more time with friends than they did in middle childhood. Intimacy is more important in adolescent friendships than at earlier ages. Adolescents also have groups of friends, or “cliques,” and see their peers as falling into “crowds.” Bullying is more common in adolescence than at other ages.
8.18 Identify cultural variations in adolescent love and sexuality, including variations in adolescent pregnancy and contraceptive use.

Cultures vary widely in their tolerance of adolescent sexuality, from permissive to semi-restrictive to restrictive. Rates of adolescent pregnancy are lowest in cultures that are highly accepting of adolescent sexuality and in those that strictly forbid it. American adolescents have high rates of adolescent pregnancy, due mainly to the mixed cultural messages they receive about adolescent sexuality.

8.19 Compare and contrast the secondary education systems and academic performance of developed countries and developing countries.

The United States, Canada, and Japan have a comprehensive high school, but most other countries have at least 3 different types of secondary school. Academic performance is generally higher in developed countries than in developing countries, but highest of all in Asian developed countries, where pressure to excel is high.

8.20 Summarize the typical forms of adolescent work in developing countries and developed countries, and describe the features of apprenticeships in Europe.

Adolescents’ work is often hard and perilous in developing countries. In developed countries, working more than 10 hours per week interferes with adolescents’ school performance. In some European countries, apprenticeships are available, in which adolescents spend part of their time in school and part of their time in the workplace receiving direct occupational training.

8.21 Explain the function of media use in adolescents' lives and apply the Media Practice Model to the playing of electronic games.

Adolescents are avid users of a wide range of media, from television and music to electronic games and mobile phones. Concern has been expressed about the potential negative effects of playing electronic games, mainly focusing on aggressive behavior and attitudes, but positive effects have been found in areas such as mood regulation.

8.22 Summarize the explanations for why age and crime are so strongly correlated, and describe the multisystemic approach to combating delinquency.

According to one theory, age and crime are highly correlated because adolescents are more independent from parents than at earlier ages and also more peer-oriented. The multisystemic approach entails intervening at several levels, including home, school, and neighborhood.

8.23 Identify the different types and rates of depression and summarize the most effective treatments.

Depressed mood involves a relatively brief period of sadness, whereas major depression entails a more enduring period of sadness combined with a variety of other symptoms, such as disruptions in patterns of sleeping and eating. Although major depression is rare in adolescence, depressed mood is more common in adolescence than in any other life stage, especially among adolescent girls. The most effective approach to treating adolescent depression combines the newest medications and psychotherapy.

8.24 Define resilience and name the protective factors that are related to resilience in adolescence.

Resilience means functioning well despite adverse circumstances. Some of the protective factors promoting resilience in adolescence are high intelligence, a good relationship with a parent or mentor, and physical attractiveness.

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**KEY TERMS**

- actual self p. 364
- possible self p. 364
- ideal self p. 364
- feared self p. 364
- false self p. 364
- gender-intensification hypothesis p. 366
- preconventional reasoning p. 368
- conventional reasoning p. 368
- postconventional reasoning p. 368
- worldview p. 369
- secular p. 370
- autonomy p. 372
- intimacy p. 376
- clique p. 376
- crowd p. 376
- cyberbullying p. 377
- permissive culture p. 379
- semirestrictive culture p. 379
- restrictive culture p. 379
- sexual orientation p. 380
- coming out p. 380
- homophobia p. 380
- secondary school p. 381
- rote learning p. 383
- apprenticeship p. 385
- life-course-persistent delinquent (LCPD) p. 389
- adolescent-limited delinquent (ALD) p. 389
- depressed mood p. 390
- major depressive disorder p. 390
- resilience p. 391
- protective factors p. 391
1. Estradiol
   a. is produced only in females.
   b. increases in females by the midteens.
   c. is an androgen important in pubertal development.
   d. is a sex hormone that is regulated by the amygdala.

2. Which of the following best describes pubertal timing?
   a. The average age of menarche is much later today than it was in earlier generations.
   b. Menarche takes place as late as age 15 in some developing countries, due to lack of proper nutrition and medical care.
   c. The timing of puberty has no effect on adolescent boys.
   d. The effects of early maturation are generally positive for girls.

3. Puberty rituals
   a. developed to mark the departure from adolescence into emerging adulthood.
   b. are only carried out for females and are most often related to menstruation.
   c. are declining in many cultures as a consequence of globalization.
   d. focus on a particular biological event across all cultures.

4. In the United States, girls
   a. who have an eating disorder are also more likely than other females to be depressed.
   b. with bulimia are usually about 20% overweight.
   c. who are Asian American are more likely to have eating disorders than are those in other ethnic groups.
   d. are more likely than boys to be satisfied with their bodies.

5. The substance use of an adolescent who drinks alcohol to relieve feelings of sadness and loneliness would be classified as
   a. social substance use.
   b. medicinal substance use.
   c. experimental substance use.
   d. addictive substance use.

6. Compared to the concrete thinking abilities displayed in childhood, the ability to reason in adolescence
   a. utilizes the hypothetical thinking involved in a scientific experiment.
   b. involves more random attempts at problem solving as they persist longer.
   c. differs quantitatively but not qualitatively.
   d. is not significantly different.

7. Which of the following is the most accurate statement based on research on formal operational thinking?
   a. Educational background is unlikely to impact performance on Piagetian tasks.
   b. Once people obtain formal operational thinking skills, they use them consistently across all tasks and situations.
   c. All people reach the formal operational stage of cognitive development by age 12.
   d. The way that formal operational thinking is manifested is likely different across different cultures.

8. Compared to his 7-year-old brother, a 14-year-old will have an easier time reading a book and listening to music at the same time because he’s more adept at
   a. using mnemonic devices consistently.
   b. tasks that require divided attention.
   c. tasks that require transfer of information from sensory memory to short-term memory.
   d. maximizing his metamemory.

9. Compared to his brother in college, Jonah is more likely to think that if he starts smoking marijuana, he will be able to quit when he wants to and nothing bad will happen. This way of thinking demonstrates
   a. the personal fable.
   b. the imaginary audience.
   c. selective attention.
   d. hypothetical reasoning.

10. After learning to knit a simple scarf with her grandmother’s guidance, Alexis began to knit a sweater while on break from college. She went over to her grandmother’s when she had a question and was almost done when it was time to go back to school. She finished a few weeks later, needing only one Skype help session. Her grandmother recently mailed her a pattern so she can knit a handbag. This illustrates:
   a. selective attention.
   b. synaptic pruning.
   c. scaffolding.
   d. hypothetical-deductive reasoning.

11. A developmental psychologist would most likely use the Experience Sampling Method (ESM)
   a. to evaluate the strength of cohort differences.
   b. to examine changes in emotions at various time points.
   c. to examine how different environmental experiences affect brain development.
   d. to determine whether behavioral differences between males and females become more pronounced in the transition from childhood to adolescence.
12. Adolescents are most likely to exhibit their false selves with
   a. close friends.
   b. dating partners.
   c. acquaintances.
   d. parents.

13. In traditional cultures, girls reach womanhood mainly through
   a. their achievements.
   b. the same means that males reach manhood.
   c. their biological changes.
   d. protecting their young.

14. Research on Kohlberg’s stages of moral development has shown that
   a. the stage of moral reasoning achieved tends to increase with age.
   b. over time, people regress to an earlier stage of moral reasoning.
   c. people often skip stages and advance to the highest stage in adulthood.
   d. the majority of people reach Stage 5: community rights and individual rights orientation.

15. Religious faith and practices are
   a. usually weaker among African Americans than among Whites in the United States.
   b. associated with less depression and lower rates of drug use among adolescents.
   c. highest among adolescents in Europe compared to adolescents in other countries.
   d. the main priority of most American adolescents’ lives.

16. In the United States, conflict in adolescence
   a. is especially intense and frequent between fathers and sons.
   b. steadily increases until the end of emerging adulthood.
   c. is more frequent between early maturing adolescents and their parents compared to “on-time” adolescents and their parents.
   d. is similar in frequency to that observed in traditional cultures.

17. Which of the following would you be LEAST LIKELY to hear an American female adolescent say:
   a. “If I need relationship advice I will ask my parents.”
   b. “I feel most comfortable talking to my best friend about my deepest secrets.”
   c. “I have the most fun when I am with my friends.”
   d. “If I had the choice, I would rather hang out with my friends than go on vacation with my family.”

18. On the basis of anthropological evidence, the United States would be considered a(n) __________ culture in terms of its cultural beliefs about the acceptability (or not) of premarital sex.
   a. permissive
   b. authoritarian
   c. semirestrictive
   d. restrictive

19. Compared to their peers in the United States, adolescents in Eastern countries
   a. have a shorter school day.
   b. have a shorter school year.
   c. have to take entrance exams for both high school and college.
   d. focus almost exclusively on critical thinking.

20. Adolescents in developed countries who work part-time
   a. are less likely to use drugs and alcohol than their nonworking counterparts.
   b. have higher grades in school than other students.
   c. usually contribute the majority of their earnings to support the household income.
   d. do not typically see their high school jobs as the basis for a future career.

21. Research on the media use of adolescents
   a. has found that only females report that they enjoy the social aspect of gaming.
   b. has found that adolescents in industrialized countries use media for about 2 hours every day.
   c. has focused primarily on the benefits, such as increasing problem solving ability and strategizing.
   d. has shown that the content of electronic games is related to their emotional responses.

22. Which of the following best describes the relationships between age and crime?
   a. Adolescents are less likely than adults to commit crimes because they do not have enough opportunity to do so.
   b. Adolescents are less likely to be the victims of crime than are children or adults.
   c. Adolescents are likely to commit crimes alone because they worry about their reputation if they get caught.
   d. A small percentage of adolescents commit the majority of crimes.

23. Which of the following statements about depression is true?
   a. Rates of major depressive disorder are higher among adolescents than rates of depressed mood.
   b. Cognitive behavior therapy (CBT) alone was as effective in treating adolescent depression as CBT combined with medication.
   c. Rates of depressed mood reach a peak between the ages of 15 to 17.
   d. Boys are more likely than girls to show increases in depressed mood during adolescence.

24. Research on resilience has shown that
   a. bouncing back from adversity requires a high level of achievement and extraordinary abilities.
   b. high intelligence characterizes many individuals who are considered resilient.
   c. as a group, girls are more resilient than boys.
   d. parenting has no influence on resilience.