In the first three years of life, children change dramatically—more so than during any other span of just 1,095 days. On average, height increases 60% from an average of 20 in. (51 cm) at birth to 33 in. (84 cm), and weight increases almost fivefold from an average of 7.5 lb. (3.4 kg) to 33 lb. (15 kg). During this period, children learn to communicate through
language, begin developing a self-concept, discover ways to regulate their emotions, and become increasingly competent in social interactions. This chapter covers parenting as it relates to some of the many changes that take place in infants (birth to 12 months old) and toddlers (one to three years old).

**PARENTING INFANTS**

Recall that Bradley’s first task for parents is keeping the child healthy and safe. Parents establish a healthy trajectory by providing appropriate nutrition, ensuring adequate sleep, and taking the infant to well-baby doctor visits. Breastfeeding has frequently been shown to provide a protective effect for infants by its immunizing ability, resulting in fewer incidents and shorter durations of acute respiratory infections and diarrhea (e.g., López-Alarcón, Villalpando, & Fajardo, 1997). Breastfeeding promotes the attachment relationship (Jansen, de Weerth, & Riksen-Walraven, 2008). Closely related to breastfeeding is affectionately touching the infant. Touching an infant is linked to various positive outcomes, while touch deprivation can have negative effects on development (Field, 2010).

Parents also need to begin the practice of taking the infant to well-baby visits. These trips to the pediatrician begin at one month of age. They help monitor the infant’s physical and motor development as well as give the opportunity to regularly immunize the infant on schedule (see http://www.cdc.gov/vaccines/parents/infants-toddlers.html). There has been a great deal of recent controversy over possible unintended negative side effects of immunization. See Box 7.1 for a discussion of the myth regarding the role of vaccines in causing autism spectrum disorders.

**Box 7.1 The Vaccine-Autism Controversy**

In 1998, a British physician named Andrew Wakefield and his colleagues published a paper reporting that within one month of receiving the measles-mumps-rubella (MMR) vaccine, 12 children (12 to 24 months) began to show signs of autism or other problems. He subsequently published a second paper purporting to provide more evidence of the link. Many parents of children with autism embraced this newest proposed cause of autism and began campaigns to change or eliminate child vaccination laws. However, since that time, more than 20 epidemiologic studies have tested that hypothesis—and found no evidence in support of several possible explanations of a link (Gerber & Offit, 2009). Close examination of the studies by Wakefield show a variety of critical flaws. However, damage has been done to the reputation of the risks of childhood immunizations, contributing to the problem of undervaccination (Feemster & Offit, 2013). Currently, only about 68.4% of children in the United States receive all their vaccinations (America’s Health Rankings, 2014). A fascinating account of this controversy can be found in *Autism’s False Prophets: Bad Science, Risky Medicine, and the Search for a Cure* by Paul Offit (2008).
Daily Routines, Sleep, and Infant Crying

In addition to providing basic health and safety measures, establishing healthy infant development trajectories is done by creating daily routines. An infant is not born as a tabula rasa or blank slate, as Aristotle and John Locke believed. Rather, infants are equipped with a variety of behavioral systems ready to be activated. These systems include reflexes (e.g., sucking and grasping), sensory abilities (e.g., orienting to sound), and crying. Babies sleep, eat, fuss, and cry, and—fortunately for parents—also smile, vocalize, and engage in self-play. Social smiling emerges at about three months of age, as do more advanced vocalizations. By 6 to 10 months of age, infants typically begin to crawl. At about 12 months, they begin to walk and speak words, and their infancy gives way to toddlerhood.

The amount of time spent in these basic behaviors changes markedly as the infant grows. Newborns spend more time sleeping than any other single activity. Sixty-five percent of a newborn’s day is spent sleeping (averaging 16–17 hours), but that decreases to 57% by the end of the first year (see Photo 7.1). However, the number of hours a baby sleeps is affected by both genetic and environmental factors (Touchette et al., 2013). Gradually, stretches of nighttime sleeping lengthen. For instance, a sample of Dutch parents reported that from midnight to 6:00 A.M., two-week-old newborns sleep 4.9 hours, but one-year-old infants sleep almost all 6 hours (Meijer & van den Wittenboer, 2007). See Figure 7.1 for changes in the time spent sleeping over the first year.

Photo 7.1 A parent and an infant.

Source: Rayes/Digital Vision/Thinkstock
Figure 7.1  Change in Sleeping Time During the First Year

A

Daytime Consecutive Sleep (hours)

- Rapidly decreasing daytime sleep ($n = 42; 4.3\%$)
- Normally decreasing daytime sleep ($n = 744; 75.7\%$)
- Slowly decreasing daytime sleep ($n = 197; 20.0\%$)

B

Nighttime Consecutive Sleep (hours)

- Short-persistent nighttime sleep ($n = 49; 4.9\%$)
- Short-increasing nighttime sleep ($n = 40; 4.6\%$)
- 10-hour nighttime sleep ($n = 474; 47.6\%$)
- 11-hour nighttime sleep ($n = 426; 42.8\%$)

Source: Based on Touchette et al., 2013.

When awake, infants spend time in different states of alertness. Some of the time, they are quiet alert and spend their time gazing at the environment. Other times, they are in an
active alert state as they engage in more movement and respond positively to stimulation from caregivers. Infants also fuss and cry. Crying peaks at six weeks of age, when it goes on for about two hours a day, according to a Danish study of 133 newborns (Alvarez, 2004) [Preview Question]. The evening time is when 40% of the fussing and crying occurs. Crying spells decrease over time, and by the beginning of the fourth month of life, the total duration of crying averages half as long as during its peak. Of course, there is wide variability across children in the amount of infant crying.

Some newborns and infants engage in excessive amounts of crying; such infants are often described as colicky. This term generally means that though healthy, a baby frequently cries or even screams for long periods of time without an apparent reason. Imagine a baby crying for three hours a day, three days a week or more, for weeks on end! Colicky symptoms emerge within two weeks of birth and subside by four to five months. The cause is thought to be some type of gastrointestinal problem, sometimes linked to the use of cow’s milk. In these cases, substituting breast milk for infant formula is the best solution available, though it is not always effective (Lucassen et al., 1998). The latest strategy to prevent or treat colic is to give the infant oral probiotics (microbes such as bacteria and yeast). However, a meta-analysis of 12 trials of this procedure found ambiguous results. In 6 trials, crying was indeed reduced, but in the other 6, it was not (Sung et al., 2013).

Hearing an infant cry is unpleasant. From an evolutionary perspective, highly noxious cries have been selected because they are so good at eliciting a caregiver’s response (Green, Gustafson, Irwin, Kalinowski, & Wood, 1995; Murray, 1979). Infant crying also affects family functioning; marital satisfaction is lower when parents hear a lot of crying (Meijer & van den Wittenboer, 2007).

In fact, excessive infant crying can incite frustrated caregivers to shake the baby, resulting in shaken baby syndrome. Shaking an infant is very dangerous, as it can cause brain injuries that can result (depending on the severity) in learning and physical disabilities, blindness, seizures, and death (Altimier, 2008). To educate parents about excessive crying, the Period of Purple Crying concept was created (see http://www.dontshake.org). Purple is an acronym: P (peak age of crying is at two months), U (unexpected), R (resists soothing), P (pain-like face), L (long lasting—up to five hours at a time), and E (most likely to occur in the afternoon or evening). This acronym helps parents recognize the normalcy of their baby’s crying, and even to prepare for periods of excessive crying, for example, in the evening during dinner time.

Parents need to learn how to comfort crying babies. This includes checking to see if the baby is hungry, tired, or needs changing; walking with the baby or providing rhythmic motions or sounds; massaging the baby; or providing visual stimulation. With practice, parents become more efficient and accurate at determining why a baby is crying (Holden, 1988) and resolving the infant’s (and their own) distress. This ability to efficiently problem solve has implications for sensitive parenting—and forming attachments.

**Brain Development**

A neonate is born with all the brain cells (neurons) that he or she will ever have. But brain development is a complex set of processes that begin within a few weeks of conception and continue until early adulthood (Jabès & Nelson, 2014). The size of the brain almost
triples during the first five years of life, so it will grow from about one-quarter to almost three-quarters of its adult weight of 2¼ pounds. Three key neurological processes are involved in brain development: neurogenesis, synaptogenesis, and myelination.

Neurogenesis happens in the womb. It involves the formation of neurons (the brain cells used to process information) and glia (cells that provide structural support and metabolic sustenance for neurons). The rate of creation of neurons is hard to fathom: an average of 250,000 per minute over the nine months of gestation, for a total of about 100 billion neurons. Synaptogenesis is the process of forming synapses (connections) between these neurons, and it occurs mostly after birth. It is almost impossible to comprehend how rapidly synapses are formed to create the 1,000 trillion synapses present in a three-year-old child. This means that 1.8 million synapses are created per second between 2 months of gestation and 24 months of age. Along with the growth of synapses is the proliferation of dendrites or the branches of the neurons that allow for synaptic communication (see Figure 7.2). Most of this dendritic growth (more than 80%) occurs after the baby is born (Casey, Tottenham, Liston, & Durston, 2005; Jabès & Nelson, 2014).

During the first two years after birth, dendrites become fully extended, and synapses reach their maximum density (Eliot, 1999). As healthy development continues, there are

Figure 7.2 Diagram of a Brain Cell Showing Synapses and Dendrites

far too many synapses for the brain to use. Consequently, the process of synaptic pruning must occur. This process begins at about two years of age and continues into adolescence. Synapses that are not utilized are lost—some 20 billion per day. Hence, the saying “use or lose it” is very applicable in this instance. This elimination of excess synapses makes brain processes more efficient, as the brain’s electrical impulses have relatively fewer branches through which to navigate.

Through the process of myelination, a part of our neurons called axons are sheathed by myelin (a fatty, insulating substance) so they will conduct electrical impulses. Myelin sheathing begins in the brain in the ninth month of gestation, shows considerable growth over the first two years of life, and continues at a slower pace at least through adolescence. This process is essential for healthy functioning of the body. When demyelination occurs, such as in the case of multiple sclerosis, individuals suffer a variety of problems, including a loss of dexterity and difficulties in coordinating movements as well as visual and cognitive impairments.

The brain is also developing in other ways. A key area for early childhood is the limbic system. This set of brain structures (including the amygdala, hippocampus, cingulate gyrus, hypothalamus, and other parts) support various functions, including emotion, attachment, long-term memory, and behavior. Myelination in the limbic system occurs slowly, and many of its areas are not myelinated until at least nine months of age. The neurological immaturity of this system in infancy provides a biological explanation for why we do not remember events from our infancy.

As neurologist Martin Teicher (2002) wrote, “Our brains are sculpted by our early experiences” (p. 68). The dramatic neurological development that occurs in the first few years of life both helps to explain some child behavior and has implications for parenting behavior. For example, there is now evidence, based on a prospective study, that middle school children with larger hippocampus volume had mothers who were more nurturing when the children were young (Luby et al., 2012). The hippocampus is involved in the formation of new memories as well as learning and emotion. Table 7.1 provides examples of how knowledge of neurological development can inform how we rear young children.

There is increasing evidence that the relationship between parenting and brain functioning is bidirectional. Just as the quality of parenting affects infant brain growth, engaging in parental care affects neural and hormonal (e.g., oxytocin) functioning in women (Rilling, 2013). Increases in gray matter have been found in postpartum mothers (Kim et al., 2010). These increases are thought to correspond to improved functioning in the relevant area. The neuroplasticity of parental brains has also been shown when mothers view pictures of their own children versus pictures of other children (e.g., Bornstein, Arterberry, & Mash, 2013; Leibenluft, Gobbini, Harrison, & Haxby, 2004). These studies reveal that mothers’ (and presumably fathers’) brains are changed as a result of having children.

Promoting Healthy Brain and Cognitive Development

How do parents promote brain development? Providing appropriate levels of stimulation for the infant is one key. Recall the problems with children raised in institutions, discussed in Chapter 4. Stimulating an infant’s brain occurs through all the senses. Parents should create an enriching environment for an infant, but this does not necessarily mean
buying lots of gadgets or toys. Table 7.1 lists some of the activities parents should engage in to promote an infant and toddler’s brain and cognitive development, beginning in the prenatal period.

**Table 7.1** Rearing Smarter Children Based on Brain Research

<table>
<thead>
<tr>
<th>Period</th>
<th>Some Recommended Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prenatal</td>
<td>Take prenatal vitamins &amp; stay healthy (eat well, exercise).</td>
</tr>
<tr>
<td></td>
<td>Mothers should gain 15 to 30 lbs., eating an extra 300 calories a day.</td>
</tr>
<tr>
<td></td>
<td>Minimize stress.</td>
</tr>
<tr>
<td>Infancy</td>
<td>Breastfeed for the first year.</td>
</tr>
<tr>
<td></td>
<td>Engage in happy, loving interactions; avoid conflicts.</td>
</tr>
<tr>
<td></td>
<td>Introduce variety in daily experience.</td>
</tr>
<tr>
<td></td>
<td>Provide appropriate stimulation; avoid overstimulation.</td>
</tr>
<tr>
<td>Toddlerhood</td>
<td>Continue to provide good nutrition.</td>
</tr>
<tr>
<td></td>
<td>Provide vitamin/mineral supplements if needed.</td>
</tr>
<tr>
<td></td>
<td>Engage in a variety of daily experiences; arrange peer interactions.</td>
</tr>
<tr>
<td></td>
<td>Provide appropriate stimulation; avoid overstimulation.</td>
</tr>
<tr>
<td></td>
<td>Read to your toddler. Expose your child to music and/or a second language.</td>
</tr>
<tr>
<td></td>
<td>Engage in mutually enjoyable activities.</td>
</tr>
</tbody>
</table>

*Sources: Eliot, 1999; Medina, 2010.*

Although parents can do much to ensure their infant’s cognitive development, they should not be fooled by gimmicks that are advertised as shortcuts to making a child smart. Box 7.2 describes the one of the latest ploys.

**Box 7.2 Do Infants Learn From Baby Videos?**

Many parents want to give their infant every possible advantage to succeed academically. An industry has sprung up to capitalize on this desire. An early effort was dubbed *the Mozart effect*. Based on one study, it was shown that intellectual performance in college students could be enhanced by listening to a Mozart sonata (Rauscher, Shaw, & Ky, 1993). That finding was extrapolated to the extent that a
state governor distributed Mozart CDs to all parents of newborns, with the hope that this would raise the children’s intelligence. Subsequent studies did not replicate that effect (Bangerter & Heath, 2004). The next attempt to commercially market infant stimulation arrived in the form of the Baby Einstein videos. These videos, designed for children 12 months and older, promise to expand a child’s vocabulary. But do they? In the most rigorous experimental study to date, Judy DeLoache and her colleagues (DeLoache et al., 2010) tracked word learning in 12- to 18-month-old children for a month. Children who watched the video at least five times a week for a month did not show any improved performance over the control group.

In fact, we do not yet know the long-term implications of young infants and children being exposed to “screen time” of various sorts. It is likely that a large amount of exposure to video screens and other technology affects brain development in some (as yet unknown) way. One of the major problems with using phones, computers, tablets, and television screen to entertain or even educate infants is that this practice often leaves little time for some of the most important developmental activities: talking and nonverbal exchange, interactive play, gross motor play, physical affection, and so on. The American Academy of Pediatrics (http://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/pages/media-and-children.aspx) recommends that children under the age of two years not be exposed to any video, tablet, phone, or other visual technology product.

**Forming Attachments**

Besides feeding and responding to crying, parents engage in a variety of other nurturant caregiving actions that include sheltering, bathing, and protecting. Social behaviors help to regulate the infant’s emotions as parents manage and monitor the infant’s social interactions. These actions include a wide variety of visual, verbal, affective, and physical behaviors. For example, singing to the baby, playing peekaboo, tickling, and making funny faces fall into this category of caregiving behaviors.

Through **social caregiving**, infants begin learning fundamental principles of social interaction. These principles include turn-taking (alternating turns in an interaction), synchrony (when both individuals attend to the same thing, are responsive to each other, and perhaps may share emotions), reciprocity (when the acts are supportive of each other and become similar), and complementarity (when one person’s acts complete or respond to the other’s) (Harrist & Waugh, 2002). Comforting an upset baby through rocking and patting illustrates a complementary and synchronous interaction. Playing peekaboo with an infant—a common parental activity observed in a wide range of countries, including Iran, South Africa, Russia, and Brazil (Fernald & O’Neill, 1993)—introduces an infant to turn-taking, synchrony, and complementarity.

Through social interactions, infants also learn about the rudiments of love. Recall that both Freud and Erikson viewed the mother-infant relationship as the foundation for all subsequent relationships. Erikson (1993) saw the mother-infant relationship as the source
for establishing the milestone of basic trust in others. According to attachment theory, babies learn whether other people can be trusted to care for them, protect them, and respond to their needs (e.g., Bowlby, 1969, 1988; Cassidy, Jones, & Shaver, 2013). These experiences provide children with a feeling of security (or insecurity) and, in turn, a sense (or lack) of self-worth.

Over the course of the first year of life, the quality of the interactions between parent and child leads to a complex relationship that could be considered a “partnership” (Bowlby, 1988, p. 268). This process is thought to occur in four developmental phases. See Table 7.2 for a description of the characteristics of each phase and associated age period (Marvin & Britner, 2008).

As introduced in Chapter 2, the quality of this parent-child partnership of attachment has been extensively studied from the perspective of attachment theory with the use of the Strange Situation procedure. Caregiving practices, especially sensitive parenting practices, have been linked to the formation of secure attachments (Dykas & Cassidy, 2013).

Mothers observed to be responsive and successful in addressing their infant’s needs were more likely to have children classified as securely attached. In contrast, mothers who did not respond promptly or had more difficulty in comforting their babies were more likely to have infants classified as insecurely attached (either avoidant or resistant). In typical North American samples from the community, 62% of the sample will be classified as secure, 15% as insecure-avoidant, 9% insecure-resistant, and 15% insecure disorganized (van IJzendoorn, Schuengel, & Bakermans-Kranenburg, 1999). However, those percentages change when different countries are sampled or when a high-risk sample or clinical sample is assessed, such as demonstrated with depressed mothers (Martins & Gaffan, 2000).

Although attachment researchers have focused on parental sensitivity, a related characteristic encompassing a broader array of behavior and described with several synonyms is warmth, affection, acceptance, or love. Warmth has long been recognized and found to be the

<table>
<thead>
<tr>
<th>Phase</th>
<th>Key Features</th>
<th>Approximate Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td>Behavior is reflexive and infant seeks contact indiscriminately</td>
<td>Birth to 10 weeks</td>
</tr>
<tr>
<td>Phase 2</td>
<td>Learning to discriminate people based on physical characteristics</td>
<td>10 weeks to 6 months</td>
</tr>
<tr>
<td>Phase 3</td>
<td>Infants become clearly attached to caregivers</td>
<td>6 months to 30 months</td>
</tr>
<tr>
<td>Phase 4</td>
<td>Infants learn to cope with separation from attachment figures</td>
<td>30 months</td>
</tr>
</tbody>
</table>

*Source: Marvin & Britner, 2008.*
CHAPTER 7  Parenting Infants and Toddlers  195

most fundamental dimension of effective parenting (e.g., Khaleque, 2013; Maccoby & Martin, 1983). Researchers have measured it by various indices, including physical affection, acceptance of the child, giving approval for good behavior, playful joking, sharing mutually rewarding activities, and responding to the child in a positive and accepting way (Russell & Russell, 1989). As Laible and Thompson (2007) observed, parental warmth is better thought of as a dyadic or relational construct [Preview Question]. This means it is not solely a variable that resides within the parent, but it reflects the quality of the relationship. Warmth in the parent-child relationship has a number of benefits. It promotes a sense in children that they are loved and respected. In turn, children are more likely to trust that the parent has good intentions. A warm relationship also promotes children’s cooperation, because it enhances their motivation to comply (Grusec, Goodnow, & Kuczynski, 2000).

One consequence of a warm parent-infant relationship and strong feelings of love for the infant is parental separation anxiety, a parent’s unpleasant emotional state of concern and apprehension about leaving a child. The anxiety is characterized by feelings of guilt, worry, and sadness (Hock, DeMeis, & McBride, 1988). Both mothers and fathers experience separation anxiety, although mothers experience more anxiety related to work-related separations (Hock & Lutz, 1998). In a study using Belsky’s (1984) model of the determinants of parenting (discussed in Chapter 5), Hsu (2004) found that separation anxiety in primiparous (first-time) mothers was multiply determined. Mothers who were not generally anxious, were happy with their marriage and their social support network, and had temperamentally easy children tended to experience more separation anxiety than did other mothers. Presumably mothers with more challenging children found some respite when they had time away from their infants.

Box 7.3  Attachment in Children With Autism Spectrum Disorder

The normal attachment process can be severely compromised in infants who have or may develop autism, now called autism spectrum disorder (ASD) in the latest Diagnostic and Statistical Manual of Mental Disorders (DSM-V), the American Psychiatric Association’s (2013) diagnostic manual. ASD is a serious disorder characterized by communication problems, impaired social interactions, and repetitive behaviors. The severity ranges from individuals who can function well enough to go to college to individuals unable to care for themselves. Latest statistics from the Centers for Disease Control indicate the prevalence rate may be as high as 1 child in 88 (Baio, 2012). This rate has nearly doubled since 2007, something that may be attributable to better detection by teachers and doctors or (more perniciously) by some unknown environmental factor. Although many children are not diagnosed with the disability until they are toddlers, preschoolers, or even later, early indicators in infants include not smiling or showing joy at 6 months, not being able to engage in reciprocal social exchanges at 9 months, and not babbling or responding to his or her name at 12 months. The social deficits result in delayed attachments and fewer secure attachments, especially in the children who are more impaired (Rutgers, Bakermans-Kranenburg, van IJzendoorn, & van Berckelaer-Onnes, 2004).
Infant Temperament and Infant Effects

As previously described, the arrival of a newborn generally transforms a household. This is especially true for firstborn children. Suddenly, the focus of attention is the newborn; daily activities are structured around him or her. This change—how the newborn affects the behavior of those around him—is an example of a child effect (in this case, an infant effect), and its influence can be powerful. Simply looking at an infant, according to ethologist Konrad Lorenz (Lorenz & Kickert, 1981), can bring on a child effect. Lorenz argued that features of babies (such as a large forehead, big eyes, and a small nose) elicit, on a subconscious level, nurturant reactions from those around.

Although facial features may prompt initial reactions, behavior is a more powerful stimulus. Shortly after birth, behavioral differences in infants become apparent. Some neonates are fussy and irritable; others are mostly happy. Some infants develop regular patterns of behavior; others are less predictable. These types of differences between newborns illustrate the notion of temperament.

There are several competing views about what the behavioral ingredients of temperament are. Pediatricians Thomas and Chess (and their colleagues) developed the first systematic view of temperament (e.g., Thomas, Chess, Birch, & Hertzig, 1963). Based on a longitudinal study with extensive interviews of 22 parents, they distilled key child-behavior characteristics that appeared to be stable individual differences over time. They proposed that temperament consisted of nine characteristics, including activity level, adaptability, mood, and distractibility. These characteristics could then be reduced into clusters forming three categories: (1) difficult (negative mood, low adaptability, high intensity, and low rhythmicity); (2) easy (the opposite of the difficult child); and (3) slow to warm up (initially, the child may react more like a difficult child).

Although this pioneering work set the stage for subsequent studies, the nine characteristics and three categories have not held up to scientific scrutiny. For example, there is overlap among the nine characteristics. Subsequent studies using factor analysis (a statistical procedure used to identify common factors or variables by analyzing patterns of correlations) determined five behavioral factors rather than nine (Putnam, Sanson, & Rothbart, 2002). Another problem found has been Thomas and Chess’s simplistic and potentially problematic labeling of a child as difficult. Most children could be considered difficult or easy, depending on the age of the child, the particular situation, or the subjective perceptions of the rater (Bates, 1989; Putnam et al., 2002). In addition, labeling a child as difficult has the danger of becoming a self-fulfilling prophecy.

Today, temperament is considered to reflect the physiologically based differences between infants in activity level and reactivity, attention, and emotionality (Rothbart & Bates, 2006). These differences are relatively stable across situations and time (Cummings, Braungart-Rieker, & Du Rocher Schudlich, 2013). That is not to say these characteristics are immutable.

An infant’s temperament affects the quality of parenting as well as the parents themselves. Parents of fearful, distressed, or sad infants report more stress, depressive symptoms, and lower levels of parenting efficacy than other parents. In contrast, parents of infants with positive temperaments believed they were more efficacious as parents (Solmeyer & Feinberg, 2011).
Investigations into negative emotionality have been partly fruitful in linking infants' temperamental qualities to subsequent behavior problems. For example, irritable infants develop into angry, noncompliant two-year-old children, but only if their mothers are angry and punitive (Crockenberg, 1987). Based on such findings, Belsky, Hsieh, and Cnnc (1998) found support for the differential susceptibility hypothesis, first introduced in Chapter 3. The idea is that young children who rate high on negative emotionality are more influenced by parenting practices than are other young children.

The relation between child temperament and parenting practices has received considerable research attention, and most of the evidence indicates that temperament does indeed affect parenting. However, parenting likely interacts with different aspects of temperament in a variety of ways (Bates & Pettit, 2007). Perhaps it is easiest to capture that idea with one of Thomas and Chess's early constructs relating to temperament and parenting. The pediatricians argued that a child's temperament always needs to be considered when determining appropriate parenting behavior (e.g., Thomas & Chess, 1977). They proposed the construct of goodness of fit to capture the interaction between the child's temperament and the parent's childrearing behavior. So one style of parenting would not be appropriate for all children. Instead, parents need to modify their behavior in order to provide a good fit with a child's characteristics. For instance, a fearful infant in a situation with unfamiliar people would need to be treated very differently from a sociable child in the same setting. A poor fit between infant temperament and parenting style could lead to behavior problems later as a toddler.

As infants grow into toddlerhood, the relations between temperament, parenting, and children's behavior become more complex. A child's temperament influences the parent and the parent influences the child's developing temperament. Thus there are bidirectional (or transactional) effects. Perhaps the best example is that parents of extremely shy children will modify their encouragement of independence with that child (Rubin, Nelson, Hastings, & Asendorpf, 1999). As a recent review of the parenting and temperament literature makes clear, there is evidence for both bidirectional and interactive effects of temperament and parenting in such areas as frustration, fear, self-regulation, and impulsivity (Kiff, Lengua, & Zalewski, 2011).

**Role Sharing and Working Parents**

Generally, mothers are the primary infant caregivers. Nevertheless, fathers are increasingly involved in child care (Jones & Mosher, 2013). Today, over 90% of fathers of young children eat meals with their children, play with them, and bathe or change their diapers on a daily basis. Sixty percent of fathers read to their young children. However, this does not mean that fathers devote the same amount of time to child care as mothers. To examine the role that fathers play in infant care, a time diary study was conducted of 182 dual-wage earner, middle-class U.S. families (Kotila, Schoppe-Sullivan, & Kamp Dush, 2013). Infant care was classified into three categories: routine child care (e.g., dressing, feeding, changing diapers), positive engagement (soothing, holding, playing with the child), and responsibility (organizing, planning, obtaining medical care, driving). Data were collected at two age points: when the infants were three months old and nine months old. The amount of time mothers and fathers spent in infant care activities are listed in Table 7.3.
The minutes indicate that in every activity at both time points, mothers devoted much more time to infant care. Nevertheless, fathers were spending a significant amount of time engaging in parenting activities. At three months, mothers spent twice as much time interacting with their infants as did fathers. Six months later, fathers were spending more time with their infants than before, and mothers slightly less. In this study, both parents worked full time outside the home. Although the amount of time was not equal, which may be an ideal proportion in some families, this study revealed that a considerable amount of co-parenting was occurring in contemporary American families.

Engaging in constructive co-parenting is beneficial to all the family members. Parents experience more satisfaction both in the childrearing domain and in their marital relationships (Holland & McElwain, 2013). However, when parents argue about how to raise their infants and then one parent undermines the other, there is less satisfaction, fewer feelings of parental efficacy, and more stress and depressive symptoms in the parents (Solmeyer & Feinberg, 2011).

Few people like to hear others argue. That is especially true with children when they overhear their parents having a conflict. There is now evidence that even infants can be negatively affected by verbal conflicts between parents. In a provocative study, Graham, Fisher, and Pfeifer (2013) used an fMRI (functional magnetic resonance imaging) machine to scan the brains of 6- to 12-month-olds infants when they were sleeping. Recordings were played of nonsense sentences spoken in very angry, mildly angry, neutral, and happy voices by an adult male. Mothers who reported more interparental conflict had infants who greater neural reactions to the angry voice relative to the neutral voice. These results indicate that marital conflict as an environmental stressor may be linked to brain functioning in infants.

### Maternal Employment and Infant Well-Being

In 59% of U.S. families with children, both parents are employed in the labor force (Bureau of Labor Statistics, 2013). In contrast to some other countries, maternity leave in the United States is most often limited to three months without pay (Hofferth & Curtin, 2006). Consequently, more than half of mothers of infants (57%) return to work in the first...
year—and about one-third of those women are working within three months of giving birth (Bureau of Labor Statistics, 2013). Returning to work poses a variety of challenges to mothers, such as alternative child care, breastfeeding, and emotional costs.

Mothers who returned to work by the time their infant was three months old reported elevated stress levels, more depressive symptoms, and slightly more health problems than mothers who stayed at home (Chatterji, Markowitz, & Brooks-Gunn, 2013). Not surprisingly, mothers who do return to work are much less likely to continue to breastfeed their infants (Kimbro, 2006). That decision, in turn, can result in negative health effects on the infant (Dieterich, Felice, O’Sullivan, & Rasmussen, 2013).

Despite the fewer hours employed mothers spend with their child, evidence indicates the quality of parenting is not affected. Based on a time diary study of more than 1,000 mothers, it was found that employed mothers tend to make up the time lost during the week by interacting more with their infants on the weekends than unemployed mothers (Huston & Rosenkrantz Aronson, 2005).

**Infant Care**

Many families during the first year and more during the second year of a child’s life have to find alternative care because either both parents are working or the family has only one parent. There are several types of infant and child care available, including center-based care (e.g., for-profit commercial care centers such as Kindercare, church-based care, or university child care centers), family day care (in-home care), or relative care (e.g., a grandparent).

Finding alternative child care is a necessity for many families where both parents are employed. If the care is high quality, it can also provide a socially and cognitively stimulating environment for an infant or preschooler. Quality depends on such variables as the child care provider–to-child ratio, the child care provider’s training and commitment, the physical environment, the cleanliness and safety, the availability of stimulating toys, the planned activities, and disciplinary practices (Japel, Tremblay, & Côté, 2005). The problem is that there is a dearth of high-quality, affordable day care. High-quality day care is expensive: The average annual cost for full-time infant care in a center is more than $16,400 per year in Massachusetts (Child Care Aware of America, 2013).

Photo 7.2  A young toddler at play.

*Source:* Photograph by J. P. Bell
Given the number of children in day care centers, many studies have examined how attendance may impact infants, toddlers, and preschoolers’ development. Child care centers can be a source of stress and illness to children. A review of nine studies of infants through preschoolers found children in child care centers have higher stress levels (assessed by measuring cortisol levels) than children in at-home care (Vermeer & van Ijzendoorn, 2006). Children who receive center-based care are also more likely to get sick than children who stay at home (Reves et al., 1993). There will be more discussion of the research on the effects of child care center, including attachment and behavior problems, in the next chapter.

**PARENTING TODDLERS**

*Toddlers* typically refers to the span of life from 12 to 36 months. Toddlers are rapidly developing in many areas. They start to use words to communicate. They are beginning to walk, to regulate their increasingly differentiated emotions, to engage in goal-directed activities, to express their independence, to engage in goal-directed activities, to express their independence, to learn about their gender, and to form a self-concept (e.g., Edwards & Liu, 2002, see Photo 7.2). All these changes in a child’s physical, cognitive, emotional, and social abilities mean that parents need to add new behaviors to their parenting repertoire. The parenting tasks identified by Bradley (2007) expand as toddlers require more structuring, stimulating, monitoring, and disciplining.

**Intentional Socialization**

As defined in Chapter 1, *socialization* refers to processes whereby children are taught skills, values, and behavior necessary for competent functioning (e.g., Maccoby, 2007). It is a process that begins at birth but becomes more intentional as children grow and begin to assert their autonomy (e.g., “No!”, “I want to do that by myself”).

Socialization takes a number of forms in a variety of domains on multiple trajectories (Holden, 2010). Parents work to socialize their children into conforming to behavior they consider appropriate, but they also target such areas as emotions, gender, and prosocial behavior. For example, emotional socialization begins in infancy as parents learn to cope with infant crying. How parents respond to crying is linked to their beliefs. Although some parents adopt an infant’s perspective to the cries (“My baby is crying because he/she is distressed and in need of something”), many other parents may think about the crying from an adult perspective (“I want to stop the crying because it bothers me,” or “If I respond to the crying, my baby will get spoiled”). Mothers are more likely to take the infant’s perspective, while fathers take the adult perspective (Leerkes, Parade, & Burney, 2010).

As has become clear from the child effects literature, socialization is not a unidirectional process from parent to child; it is bidirectional. This bidirectional process begins at birth: Infants are not just socialized by parents, they also socialize the parent. The infant teaches the parent which feeding, nurturing, and stimulating behaviors work—and which do not.
At the core of socialization are the goals that parents have for their children. Some of these socialization goals vary across cultures, as will be discussed in a later chapter. The contrast between Eastern socialization goals and practices with Western ones is especially pronounced. Asian cultures generally value cooperation and close-group affiliation much more than do Western cultures and the United States in particular. Japanese mothers, for example, promote these values by maintaining close physical contact and developing a relationship based on interdependence. Consequently, many Japanese infants, toddlers, and preschoolers are almost always in direct physical or visual contact with their mother when they are awake. In contrast, U.S. parents rear their children to become independent, autonomous, and instrumental (Rothbaum & Trommsdorff, 2007). In America, it is commonplace for parents to enroll their infants or toddlers in day care or to hire sitters, a practice that promotes, at an early age, experiencing separations from parents.

In addition to prosocial behavior and broad cultural values, parents have many other types of goals for their children (Hastings & Grusec, 1998; Richman & Mandara, 2013). Basic parental childrearing goals include having their children get a good education; develop into healthy, happy, and independent adults; and earn a good living. Parents work to achieve these goals through a variety of socialization processes. Some of the socialization comes about through intentional and direct instruction. However, children carefully observe those around them and may simply model their parents’ behavior, as is described in Box 7.4.

**Box 7.4 Young Children “Buying” Cigarettes and Alcohol!**

That could be the headline of one study that investigated the consumer behavior of children age two to six in a miniature store. One hundred and twenty children were told to shop for a Barbie or Ken doll in a store stocked with 73 different miniature products. Children “purchased” (actually, all objects were free) an average of 17 items. A majority (61%) of the children “bought” beer or wine and 28% “bought” cigarettes. If parents smoked, children were four times more likely to “buy” cigarettes. Children who watched PG-13 or even R-rated movies were five times more likely to “buy” alcohol. One four-year-old girl mimicked what she had heard: “I need this for my man. A man needs cigarettes.” On the other hand, one preschooler pointed to the cigarettes and said, “I’m definitely not going to buy those; they can kill you.” This demonstration of social learning would not surprise Albert Bandura, who recognized the powerful role that modeling plays in development as it shapes our expectations as well as what we think is normal. The bottom line: Parents need to watch what they are doing; children sure are.

Source: Dalton et al., 2005.

A particularly salient way during the toddler years that parents encourage behaviors they want to see and discourage other behaviors is through discipline.
Discipline

Discipline is defined as training in order to act in accordance with rules. When a toddler engages in a behavior that a parent does not approve of, the parent responds with corrective discipline in an effort to teach the child how to behave. Children need a lot of training—that is the nature of the developmental process, which has been evolutionarily adapted to so that children can adapt to the requirements of the culture they find themselves born into. As early as when infants are five months of age, parents are making efforts to discipline them (Ahl, Fausto-Sterling, García-Coll, & Seifer, 2013). Although these efforts most often consist of prohibitions (e.g., “No!”, “Don’t!”), mothers also use distraction and even reasoning to change the infant’s behavior. A small percentage of parents begin using harsh corporal discipline (e.g., slapping and spanking) well before infants are able to regulate their behavior. As many as 10% of parents slap or spank their 6- or 10-month-old infants (Combs-Orme & Cain, 2008; MacKenzie, Nicklas, Brooks-Gunn, & Waldfogel, 2011)

By the time a child is two years old, they are frequently “misbehaving.” Toddlers touch things they are not supposed to. They draw on the walls. They push and hit other children. In fact, toddlerhood is when most children engage in their highest rate of aggression (Tremblay, 2006). They tease pets. They knock over glasses of milk. They have potty training accidents. The list could go on and on. Young children engage in misbehavior anywhere from 3.5 to 20 times an hour (Dix, 1991) [Preview Question]. If you take a toddler to the supermarket, the frequency of misdeeds increases to about once every 45 seconds (Holden, 1983)

Although dealing with misbehavior can be frustrating and tiresome for parents, it is through disobedience that toddlers begin to learn how to be self-assertive and test boundaries (Dix, Stewart, Gershoff, & Day, 2007). Also, children’s prefrontal cortex (and hence their self-regulatory abilities) are developing slowly. In time, they will gain the neurological ability to control their behavior.

Effective parents of toddlers work strategically to avoid some of the conflicts. This has been called proactive or preemptive parenting (Dowling, Smith Slep, & O’Leary, 2009; Holden & West, 1989; Pettit, Bates, & Dodge, 1997). Recall that in the supermarket, this involved such actions as engaging the child’s attention, avoiding problematic aisles, and providing objects for the toddler to play with.

If unable to avoid the conflict, parents use a variety of techniques to try to shape their child’s behavior. Depending on the age, they might reason with, lecture to, negotiate, or attempt to persuade the child to behave in some way. With younger children, diverting attention from a tempting object to something else is often effective. Ignoring behaviors, and thereby avoiding reinforcing them, can be a useful approach. Time out, or the removal of the child from an ongoing activity, is often advocated by parenting experts. The standard time out procedure is to put the child in a quiet corner of a room without any objects for one minute per child’s age in years. Older children respond well to withdrawal of privileges, such as putting away a toy or eliminating watching television for several nights.

Generally, if one or several of those disciplinary techniques are not effective in stopping the misbehavior, parents may threaten or yell in anger. Many parents also resort to the use of some type of corporal punishment. This may consist of slapping a hand or, in rare cases, a face. Spanking on the buttocks is a common disciplinary practice in the United States.
Figure 7.3 depicts the percentage of mothers who reported using four different disciplinary techniques from infancy through toddlerhood.

Why do toddlers misbehave? As noted, toddlers do not have the self-control abilities of older children. Another source of misbehavior is unrealistic expectations of the parent. A third cause is inappropriate parenting. Tamara Del Vecchio and Susan O’Leary (2006) found that mothers who engaged in either permissive and/or overreactive discipline had toddlers who became more aggressive to the mother during 30-minute observations. Another problematic parenting technique is that of being too intrusive. This consists of frequent physical and/or verbal directives that limit a toddler’s activities. Mothers who engage in intrusive parenting of toddlers have children who are less able to express themselves, less able to control their behavior, or perform less well on an intelligence test at 36 months (Clincy & Mills-Koonce, 2013).

During the toddler years, parents also begin using psychological control. This type of control consists of parental efforts to constrain, invalidate, and manipulate the child’s psychological and emotional experiences and expression (Barber, 1996; Barber & Xia, 2013). A common approach is “love withdrawal,” occurring when the parent withdraws attention and/or affection in an effort to control the child. Parents who tell the child what to do and how they should feel are engaging in this form of control. Not all parents use this technique. Some mothers and fathers of toddlers use psychological controls while others don’t (Verhoeven, Junger, Van Aken, Dekovic, & Van Aken, 2007). One form of psychological control—shaming—is especially common in Asian cultures (Mills, 2005; Wu et al., 2002).

Figure 7.3  How Discipline Changes During the First Four Years

![Graph showing the percentage of mothers using different disciplinary techniques from 12 months to 48 months.](image)

Source: Adapted from Vittrup, Holden, & Buck, 2006.
Given all these potential parenting pitfalls (being permissive, overreactive, intrusive, or psychologically controlling) how can parents discipline effectively? Grusec and Goodnow (1994) pointed out that deciding what constitutes effective discipline depends on a host of factors, including the nature of the misdeed, the nature of the child (his or her temperament and mood, for instance), and the features of the actual disciplinary response (perhaps the content of the message and how it is said). An effective parent, then, must take into account a variety of considerations before determining an appropriate response to a misdeed. There is some disagreement in the parenting literature about the extent to which power assertion is necessary. Although researchers agree that competent parents avoid unnecessary or extreme uses of power assertion—as well as arbitrary demands, unnecessary restrictions, and heavy reliance on power—some power assertion in conjunction with reasoning may be necessary to gain the child’s attention or maintain control (Maccoby & Martin, 1983). Independent of the degree of power assertion they exhibit, effective parents have been observed to maintain a certain degree of warmth toward their young children while disciplining (Baumrind, 1971).

Most parents are not trained in how to use discipline effectively. Consequently, mistakes are common. The four mistakes described in Box 3.2 are inadvertently reinforce behavior they do not want to see by giving attention to it, forgetting to reward behaviors they want to see more of, overreacting (and possibly getting into a coercive bout), and giving long verbal explanations about misbehavior. Instead, parents need to train the child in a calm manner and to carefully decide which behaviors to react to. Effective discipline, then, requires a lot of patience and the ability to inhibit one’s own negative emotions and behavior.

A third error is failing to practice consistent discipline. In this case, consistent does not mean responding in the exact same way to each and every child behavior (Grusec & Goodnow, 1994; Lytton, 1979). Rather, consistent parenting involves setting rules, responding similarly in similar situations, monitoring the child for compliance, and following up on stated consequences of misbehavior. According to Patterson (1982), the key point of consistency is giving the child the message that the parent will win a conflict and will not capitulate to the child. When parents do give in to a child’s demands or misbehavior (“Okay, you can have a piece of candy before dinner”), they fall into a trap whereby short-term gains (such as stopping the whining) are won at the expense of reinforcing the child’s difficult (and in this case, unhealthy) behavior. There is some evidence that parents who are inconsistent have children who are more likely to exhibit conduct problems and experience parent-child conflict than are the children of consistent parents (e.g., Krishnakumar & Buehler, 2000).

Providing Structure

Although disciplining a toddler is a frequent task in even the most well-run homes, how often children misbehave is a consequence, to some extent, of parental structuring. This dimension of parenting has not been examined as frequently as parental warmth or parental control, but it is an important component of parenting. Structuring refers to the degree to which parents provide a predictable, organized environment for a child (Slater & Power, 1987). Structure for young children is important, as it provides them with a sense of stability, predictability, and security.
Consider the homes of children raised in poverty. Many impoverished families move frequently from one home to another, and when they are in a home, it is often characterized by family turmoil, noise, chaos, a lack of schedule (such as a regular bedtime), and few regular routines (such as parental reading at bedtime). It is not hard to see the disadvantage that such settings pose for a toddler’s development (Evans, 2004).

There are many ways parents can structure a child’s environment. They decide when, where, and what the child eats. Some problematic eating behaviors that can be established early in life include too much snacking, relying on fast foods, eating meals alone rather than as a family, and not eating many fruits or vegetables. Increasingly, the parental establishment of healthy eating habits is being recognized as important for preventing eating problems in children—such as those contributing to child obesity (Olvera-Ezzell, Power, & Cousins, 1990).

Another example of parental structuring concerns children’s sleeping practices. Parents decide where a child will sleep, what time bedtime is, and how consistently that bedtime is enforced. These decisions may be based on economic factors, family size, the availability of space, and climate (Jenni & O’Connor, 2005). In the United States, most three-month-old infants sleep in the same room as their mothers, but by 12 months, they are in their own room (Hauck, Signore, Fein, & Raju, 2008). Bed-sharing is practiced by mothers of 42% of newborns but that percent also drops off, as is indicated in Figure 7.4. The practice of bed-sharing is not recommended by pediatricians because of the danger of accidentally suffocating an infant.

Figure 7.4 Infant Sleep Locations

![Infant Sleep Locations Graph]

*Source:* Hauck et al., 2008.
Another pediatrician-recommended practice is to put infants to sleep on their back in order to reduce the likelihood of sudden infant death syndrome. About one-quarter of mothers do not put their infant to sleep on their back at 3 months, and by 12 months, that figure increases to 36% (Hauck et al., 2008).

The race/ethnicity of the family is related to sleep practices. In a study of more than 3,000 families in the United States, there were systematic variations in sleeping location (Milan, Snow, & Belay, 2007). A majority (57%) of Latino toddlers slept with their parent or parents, in contrast to 37% of African Americans and 23% of White families. Most of the White families (90%) had a regular bedtime for their children, as did 80% of the Latino and 79% of the African American families. The racial/ethnic groups also differed on what they emphasized during bedtime routines, with White families being more likely to read or tell a story to their toddlers, Latino families commonly giving their children bottles, and African Americans most likely to bathe their children.

Structuring also involves setting limits on children’s behavior and desires that are inappropriate, dangerous, unhealthy, or incompatible with parental values, goals, or needs. One domain where there is a lot of variability in parental structuring is watching television or other electronic media. At 9 months of age, infants show interest in watching television (Linebarger & Walker, 2005). By 24 months, 90% of children are regularly watching television, DVDs, or videos for almost three hours a day, on average (Certain & Kahn, 2002; Zimmerman, Christakis, & Meltzoff, 2007). These statistics fly in the face of the American Academy of Pediatrics recommendation that children under the age of two should not be exposed to any screen time. Parents let their children watch television for many reasons: It is entertaining, it provides free babysitting, and they think it is educational. For example, toddlers who watch certain shows (e.g., Arthur and/or Clifford) had larger vocabularies and higher expressive language scores than toddlers who watched other shows, such as Teletubbies (Linebarger & Walker, 2005). However, extensive television viewing can result in parent-child conflict as well as attentional problems, passivity, consumerism, and, in some children, aggression (e.g., Christakis, Zimmerman, DiGiuseppe, & McCarty, 2004). Consequently, parents of toddlers begin to regulate and monitor the time their children spent viewing television, videos, or DVDs (or time with electronic games and computers for older children). Further discussion of the problems linked to children’s exposure to electronics will be discussed in the next chapter.

In addition to structuring the daily schedule and activities of children, parents commonly structure toddlers’ social interactions, because toddlers do not know how to interact with their peers in socially acceptable ways. For example, when two-year-olds play with other children, they hit their peers about once every 15 minutes (Brownlee & Bakeman, 1981). Consequently, mothers closely supervise, manage, and coach their toddlers about how they should interact with their peers (Ladd, Profet, & Hart, 1992). By providing structure to their social interactions, mothers help their toddlers to engage in more mature interactions—illustrating Lev Vygotsky’s notion of the zone of proximal development as a mechanism for achieving more developmentally advanced behavior (as described in Chapter 2).

Parents can also structure situations or the environment to promote positive relationships for a toddler. The observational study of mothers with their two-year-old children in the supermarket, described in Box 2.4, provides an example. Effective mothers anticipated their children’s behavior and directed their children to positive activities before they
misbehaved. Mothers who frequently used such proactive techniques while shopping were rewarded with children who exhibited lower rates of misbehavior (Holden, 1983). A mother’s proactive management style is also associated with children who have lower rates of behavior problems (Pettit & Bates, 1989).

Structuring the environment does not just help promote positive relationships; it may help avoid serious injury or even death. As many as 25% of children are injured each year in the United States (Scheidt et al., 1995), and many of these cases require medical attention. In rare circumstances, the injuries are so severe that a child dies. Even apart from child maltreatment, children are at risk of unintentional injuries from a variety of sources. The most common ones are motor-vehicle accidents, playground injuries, falls, poisonings, residential fires, and water-related accidents. (For statistics and other information about childhood injuries, visit the website of the Centers for Disease Control: http://www.cdc.gov/injury.)

For children under age six, a majority of injuries occur in the home. Most unintended injuries could be avoided by anticipating the child’s behavior and childproofing the home. Childproofing includes actions such as installing child locks on cabinets, placing covers on electric outlets, and moving breakable objects out of reach. But childproofing only prevents certain types of injuries. Caregiver supervision is also necessary. The likelihood of child injury can depend on the child’s characteristics, specifically, the child’s temperament. As one might expect among children age two to five years old, uninhibited and active young children were more at risk when there was low supervision. However, children high in sensation-seeking temperaments were more likely to get injured when being closely supervised (Morrongiello, Klemencic, & Corbett, 2008). It appears that these children injured themselves while showing off.

**Emotional Regulation**

Another task for parents of toddlers is to help them learn to regulate their emotions. This process begins in infancy, of course, and is closely linked to attachment (Easterbrooks, Bartlett et al., 2013). Infants and toddlers are emotionally labile. They can be happily playing one moment but upset and crying only a second later (see Photo 7.3). After a quick parent intervention, the toddlers resume their play, apparently oblivious to the prior upset. This pattern of rapid emotional changes is a reflection of their inability to regulate emotions. Another example of this occurs when toddlers fly into emotional rages, commonly called *temper tantrums*. These tantrums—though they often begin before age two—gave rise to the term, the *terrible twos*.

Although toddlers’ emotions are based in neurophysiological responses to the environment, their emotional expression also results from their behavioral traits, parenting practices, and the quality of the environment as well as the parent-child relationship and the situation (Calkins, 1994; Miller, McDonough, Rosenblum, & Sameroff, 2002).

Two-year-old children do have some ability to regulate their emotions. When scared or distressed, they may divert their eyes or hide behind an object. By shifting their attention and thereby engaging in self-distraction, they are able to reduce the effects of the arousing stimuli. Some toddlers use self-comforting behaviors such as thumb-sucking, hair stroking, or holding a favorite blanket or object. Seeking proximity and comfort from an attachment figure is another way that infants and toddlers regulate their emotions.
Children learn to regulate their emotions by developing coping skills, along with the help of maturing frontal lobes (Gross, 2014). Parents help their toddlers learn to regulate their emotions in at least four ways. First, parents *model* how to deal with emotions. Some parents get angry; others manage to control their temper. Second, parents *label* emotions so the child can begin to learn to identify his or her emotional states. A third function parents can play is to explicitly *teach strategies* to manage distress, control impulses, and delay gratification. Fourth, the *emotional climate* of the family can affect this regulation process. The climate includes attachment relationship, family expressiveness of emotion, and parenting style. Parents also manage the family emotional environment so that the child’s distress is limited to a manageable level. Children learn to cope with emotional upsets more easily than with major emotional distress. This managing of the environment is particularly important when one is raising an extremely shy child (Calkins & Mackler, 2011; Morris, Silk, Steinberg, Myers, & Robinson, 2007).

Parents model emotional regulation. If parents exhibit controlled, modulated behavior, then their children observe this and learn that that is how adults behave. Parents also influence the development of regulation by their interactive style, such as acknowledging and supporting the child’s emotions. Finally, disciplinary practices have been related to regulation. For example, parents who are overprotective and controlling may inadvertently promote social withdrawal in their toddler when the child interacts with his or her peers (Calkins, 1994).

Talk about emotions with toddlers is not just good for their emotional regulation, it can also help in the development of their prosocial (or helping others) behavior. Celia Brownell and her colleagues (2013) conducted two observation studies with toddlers. They discovered that parents who asked their children to reflect on and talk about emotions in a picture book had children who helped and shared more quickly and more often with an adult confederate who appeared to be in need. So parents who are talking about others’ emotions also are promoting their toddlers’ caring about other people and responding to their needs.

**Promoting Cognitive Development**

During toddlerhood, parents promote their children’s cognitive development in many ways. Parents provide objects to play with and read bedtime stories to their children. But foremost, they talk to their children. In a landmark study, Hart and Risley (1995) found...
significant socioeconomic differences in the extent to which parents talked to their infants. Children of parents on welfare heard about 600 words per hour. In contrast, children from affluent families heard 2,100 words. That means by the time a child is three years old, a poor child will have heard 30 million fewer words than the child of a professional couple. No wonder the word-rich children had higher IQs and did better in school. In a controlled study, using a short-term longitudinal design, Weisleder and Fernald (2013) found that toddlers who heard more words had larger expressive vocabularies about five months later.

Considering that cognitive development encompasses a much broader spectrum of behavior than just linguistic skills, we might look at ways in which parents support their toddler’s sensorimotor skills more generally. Allowing plenty of time for active play (walking, running, and tumbling) will help the toddler fine-tune his or her gross motor skills and prepare him or her for more sophisticated motor learning, such as learning to ride a bicycle or play a skilled sport. Parents often feel they do not have the time to engage in such play with their children; they should be encouraged to consider this an important part of a child’s healthy development.

The world of imagination also begins to open up for older toddlers, who enjoy “make believe” play, role playing, and dressing up as different sorts of characters or people. Children of this age can have a fairly elaborate “relationship” with a stuffed toy or doll and invite adults to enter in to this kind of imaginative play.

Engaging the young child in the visual arts (play with clay, finger painting, rudimentary drawing) as well as with music (rhythm games, simple instruments, singing, making different kinds of noises) also promotes brain development, which will later serve them well in academic endeavors and in more advanced fine motor skills.

**CHAPTER SUMMARY**

Infancy, or the first year of life, is a time of dramatic change for both the child and the parent. The infant brain is developing and changing in several ways. Parents of infants deal with basic caregiving tasks, such as quieting crying babies. A key developmental process that occurs during the first year of life is forming the parent-child attachment relationship. Individual differences in children’s behavior become very apparent early in life, and this is referred to as their temperament. Temperaments are one obvious example of child effects—how the child impacts the parenting behavior.

As the child moves into the toddler period of development, child rearing shifts from its early focus on basic caregiving to beginning to socialize children in directions influenced by parental goals. Discipline becomes an increasingly frequent activity for parents as children begin striving for autonomy. A variety of techniques are used to discipline children. Parents also engage in structuring the environment in order to promote some goals, such as peer friendships, but also to curtail certain activities, such as too much television viewing. Finally, parents must devote considerable effort to helping the child learn to regulate emotions and promote cognitive development.
THOUGHT QUESTIONS

• Does learning that an infant’s brain is going through significant changes alter how you think about a young child? In what ways?

• Reflect on your internal working models of yourself and others. Do you have one or multiple models? How trustworthy are other people? How lovable are you?

• What are some ways to help prepare individuals for the challenges of parenting toddlers?

• What is your view about discipline? How early should a parent start correcting a child?

CHAPTER GLOSSARY

affluent families  Families that earn greater than twice the country’s median income.

axons  Nerve fibers that conduct electrical impulses away from the nerve’s cell body.

dendrites  The branches of the neurons that allow for synaptic communication.

diary study  A research procedure in which the participant records daily, in a notebook, the data of interest to the researcher.

distraction  A parenting technique whereby the child’s attention is strategically shifted from one source to another.

factor analysis  A statistical procedure used to identify a reduced set of common factors or variables by analyzing patterns of correlations among a larger set of variables.

glia  Cells that provide structural support and metabolic sustenance for neurons.

limbic system  A group of brain structures (including the amygdala, hippocampus, cingulate gyrus, hypothalamus, and other parts) that support various functions, including emotion, attachment, long-term memory, and behavior.

myelin  A white, fatty substance that grows around the axons of a neuron in order to allow for electrical conductivity.

myelination  The process in which axons are sheathed by myelin so they will conduct electrical impulses.

negative emotionality  When a child’s emotional state is characterized by negative affect, such as irritability and anger.

neurogenesis  The formation of neurons and glia in the fetus.

neurons  Cells that specialize in conducting nerve impulses.

parental separation anxiety  A parent’s unpleasant emotional state of concern and apprehension about leaving a child.
prevalence The proportion of the population experiencing an illness or having a condition.

psychological control A type of control that consists of parental efforts to constrain, invalidate, and manipulate the child’s psychological and emotional experience.

shaken baby syndrome A form of physical child abuse whereby an infant is repeatedly shaken. The whiplash causes bleeding in the brain, which in turn can result in such problems as visual impairments, permanent neurological damage, or death.

social caregiving Parent caregiving behavior that focuses on an infant’s or child’s interpersonal interactions.

synapses Connections between neurons.

synaptic pruning The process in which synapses that are not utilized are lost.

synaptogenesis The process of forming synapses between neurons. It occurs mostly after birth.