

FOCUS ON VOCABULARY AND LANGUAGE

An *outgoing*, playful 3-year-old, for example, may *morph* into a happy, *wise-cracking* 18-year-old, and finally into a *jolly, playful* grandparent. Even though we change and develop over the life span, some traits, such as **temperament**, are relatively stable over time. Thus, an extroverted (*outgoing*) child may transform (*morph*) into a joking (*wise-cracking*) adolescent and eventually become a merry, fun-loving (*jolly, playful*) grandfather or grandmother.

. . . *the apple did not fall far from the tree*. This expression is used to indicate that, in many ways, offspring are like their parents (a similar expression is “like father, like son”). Our past environmental experiences and our genetic inheritance shape who we become and, as a result, we are often similar to those we were close to as we developed (*the apple did not fall far from the tree*).

. . . *from womb to tomb* . . . In the process of becoming who we are, and as we travel (*journey*) through life, from conception to death (*womb to tomb*) we change and mature physically, cognitively, and socially. (Another humorous expression describing the life span or life cycle is from “sperm to worm.”)

Prenatal Development and the Newborn

Close-Up: Twin and Adoption Studies

In procreation, a woman and a man *shuffle their gene decks and deal a life-forming hand to their child-to-be* . . . The idea here is that just as cards are randomly interspersed (*shuffled*) and then passed out (*dealt*) to the players, a man and a woman intermingle their **genes** (*shuffle their gene decks*) and conceive offspring (*deal a life-forming hand to their child-to-be*). The child is then exposed to many environmental factors beyond parental control that limit how much the parents influence the child’s development (*children are not easily sculpted by parental nurture*).

. . . *tease apart* . . . Here the word *tease* means to separate or disentangle. In an attempt to discover or separate out (*tease apart*) the differential effects of environment (*nurture*) and genes (*nature*), investigators need to use two approaches—varying the home environment while controlling **heredity** (separated twin studies) and varying heredity while controlling home **environment** (adoption studies).

. . . *chain-smoking* . . . A *chain-smoking* person is someone who smokes many cigarettes, usually one after another (it does not mean that he or she smokes chains!).

. . . *blue-collar families* . . . This phrase refers to a social category based on the type of work people do. Traditionally, manual workers wore blue (*denim*) work shirts (they were *blue-collar workers*). In contrast, office workers, managers, and others wore white shirts (they were *white-collar workers*). In this case, the identical twins (both named Jim) were adopted by similar working-class (*blue-collar*) families.

Infancy and Childhood

. . . *toddler* . . . This describes a child who is beginning to learn to walk and who walks with short, uneven steps.

Physical Development

After birth, these neural networks had *a wild growth spurt* . . . Myers points out that when you were born, you had all the brain cells that you will ever have. But after birth there is a very rapid development (*a wild growth spurt*) in the number of connections between neurons.

Similar to *paths* through a forest, *less-traveled neural pathways* gradually disappear and *popular* ones are broadened. This analogy suggests that brain development goes on throughout life. Neural connections (*paths* or *pathways*) that are frequently used (*popular*) are widened and more clearly defined, while those connections that are seldom used (*less-traveled neural pathways*) become weakened and may eventually disappear.

During early childhood—while the excess connections are *still on call* . . . To be *on call* means to be ready and available for use. Thus, during the early childhood years when many neural connections are ready for use (*still on call*), an enriched and stimulating environment is extremely important for intellectual, perceptual, and social development. As Myers puts it, “Use it or lose it.”

Cognitive Development

When Little Red Riding Hood realizes her “*grandmother*” is *really a wolf*, she swiftly revises her ideas about the creature’s intentions and *races away*. Preschoolers gradually begin to understand that other people have mental capacities, intentions, motivations, feelings, etc. (children form a *theory of mind*). This is illustrated when the young girl in the children’s story *Little Red Riding Hood* recognizes that the big bad wolf (*disguised as her grandmother*) has very bad intentions for her and she quickly escapes (*races away*).

. . . *cognitive milestones* . . . A milestone is an event of significance or importance. (Originally, a *milestone* was a large stone by the roadside inscribed with the distance in miles to nearby towns.) Myers notes that the age at which children usually succeed at important mental tasks (*cognitive milestones*) is of less relevance than the developmental order or sequence in which these abilities appear.

. . . *teeter-totter* . . . A *teeter-totter* is a playground toy (also called a *seesaw*). To use it, two people sit at either end of a bar or plank that is balanced in the middle and take turns going up and down. If one person were to get off while in the down position, the person on the other end would descend rapidly and hit the ground (*crash*). Most older children and adults would not intentionally cause this to happen, but it might not occur to a 3-year-old that getting off would create a problem for the person on the other end of the teeter-totter. Piaget’s insights can help us to remember that young children cannot think like adults and cannot take another person’s point of view.

By *building on* what children already know, we can engage them in concrete *demonstrations* and stimulate them to *think for themselves*. Preschool and elementary school children think differently from adults. For them to become independent thinkers (to *think for themselves*), Piaget recommends that they be given specific, tangible examples (*concrete demonstrations*) that utilize (*build on*) their existing knowledge.

Social Development

To *pit the drawing power of a food source against the contact comfort of the blanket*, the Harlows created two artificial mothers. The Harlows’ experiment was designed to test whether food or nourishment was more rewarding than the comfort of a soft terry cloth. Thus, when they tested the

attraction (*pitted the drawing power*) of the artificial mother who supplied food (the *food source*) against the soft comfort of the terry cloth mother (the *contact comfort*), they were surprised that the monkeys preferred the comfortable (*comfy*) cloth mother. They used “her” as a secure base from which to explore and a secure place (*safe haven*) to return to when frightened or anxious.

. . . *can leave footprints on the brain*. Traumatic experiences that occur early in development can have an effect on brain functioning; metaphorically, they can leave impressions (*footprints*) on the brain. Many abused children suffer from nightmares and depression, and during adolescence they may be troubled by substance abuse, binge eating, or aggression. Extreme trauma in childhood can have serious effects on development (*can leave footprints on the brain*).

Child-rearing practices vary. Some parents are *strict*, some are *lax*. When it comes to parenting styles (*child-rearing practices*), there is much variability: (a) some parents impose rigid rules and expect obedience (they are *strict*) and are referred to as *authoritarian* parents (they are *too hard*); (b) other parents are *permissive* (they are *too soft*) and allow children to do as they wish, making few demands on them and using little punishment (they are *lax*); and (c) still other parents are *just right*—these *authoritative* parents not only set rules and enforce them but also discuss the reasons for the restrictions. With older children, *authoritative* parents encourage open discussion and may allow exceptions when making the rules; thus, they are both demanding and responsive. Myers reminds us that the association between parenting style and developmental outcomes is *correlational* and does not imply *causation*..

. . . *parenting doesn't happen in a vacuum*. Parenting styles are influenced by environmental factors and are therefore not completely independent of cultural forces (*parenting doesn't happen in a vacuum*). Rather, they reflect the attitudes, values, and traditions shared by the culture.

Adolescence

During **adolescence** we *morph* from *child* to *adult*. The time period between the end of childhood and the beginning of adulthood involves many social and biological changes; the person is transformed (*morphed*) from one type of entity (a *child*) to something quite different (an *adult*).

Cognitive Development

When adolescents achieve the *intellectual summit* Jean Piaget called *formal operations*, they apply their *new abstract-thinking tools* to the world around them. The **formal operational stage** is the highest level in Piaget's theory of cognitive development (its *intellectual summit*). Most adolescents reach this stage and are capable of logical, rational, emotionally detached reasoning (they have *new abstract-thinking tools*). For example, many think about and discuss (*debate*) such issues as good and evil, truth and justice, and other abstract topics about human nature.

A *crucial task* of childhood and adolescence is developing *the psychological muscles for controlling impulses*. An essential aspect (*crucial task*) of the maturational process is the acquisition of attitudes, beliefs, behaviors, and a philosophy of life. With these acquisitions, adolescents develop the intellectual strength (*psychological muscles*) to refrain from acting immorally (they can *control their impulses*). Kohlberg proposed a controversial stage theory of moral development, which has three levels: *preconventional*, *conventional*, and *postconventional*.

Kohlberg claimed these levels form a moral ladder. In Kohlberg's view children have to go successively through each of the three stages of moral development (*preconventional*, *conventional*,

and *postconventional*), much as a person climbs a ladder, one rung at a time, from bottom to top. The lowest rung on this *moral ladder* involves self-interest and avoidance of punishment; the highest rung, which often develops during and after adolescence, is concerned with personal ethical principles and universal justice. Critics contend that the theory has cultural and gender biases.

Social Development

. . . *psychosocial task* . . . According to Erikson, each stage of life involves a dilemma (*crisis*) that has to be resolved before we can move on to the next stage. These tasks involve interactions between ourselves, our surroundings, and other people; thus, they are *social* in nature. Young children struggle (*wrestle*) with issues of *trust*, then *autonomy* (independence), then *initiative*. School-age children strive for *competence*. The psychosocial assignment (*psychosocial task*) of adolescence involves *role confusion vs. forming an identity*. (This is sometimes called an *identity crisis*).

Some [adolescents] *forge* their identity early, simply by *taking on* their parents' values and expectations. *Forge* literally means to form or shape by heating and hammering metal. Erikson observed that some young people form (*forge*) their identities early by adopting (*taking on*) their parents beliefs, attitudes, ethics, and so on, while others are more influenced by specific peer groups such as athletes (*jocks*), computer lovers (*geeks* or *nerds*), nonconformist dressers (*goths*), and neat, traditional dressers (*preps*) when forming their identities.

The preschooler *who can't be close enough to her mother*, who loves to touch and cling to her, becomes the 14-year-old who *wouldn't be caught dead holding hands with Mom*. When adolescents in Western cultures attempt to develop their own identities, they start to distance themselves from their parents (*they begin to pull away*). Thus, the younger child who has a very strong need to be near her mother (*who can't be close enough to her mother*) develops during adolescence a desire to be independent—she would not like to be seen, especially by her peer group, holding hands with her mother (*she wouldn't be caught dead holding hands with Mom*).

. . . *heredity does much of the heavy lifting* in forming personality differences, and parent-peer influences do much of the rest. Our genetic inheritance is the largest contributor to the development of personality differences (*heredity does much of the heavy lifting*). Parent-peer influences contribute much of the remainder.

Thinking Critically About: How Much Credit (or Blame) Do Parents Deserve?

Society reinforces such parent-blaming. Believing that parents shape their offspring *as a potter molds clay*, people readily praise parents for their children's *virtues* and blame them for their children's *vices*. Myers suggests that, because some factors that affect development are under the parent's control and others are not, it is not appropriate to be judgmental. We should be slower to praise parents for their children's achievements (their children's *virtues*) and slower yet to be critical when the children do not perform up to our expectations (their children's *vices*). Children are not simply formed by their parents' child-rearing abilities (*as a potter molds clay*) but rather are influenced by many factors beyond their parents' control.

Does this then mean that adoptive parenting is a *fruitless venture*? Despite the fact that genes may constrain the influences of the family environment (*the genetic leash sets limits*), adoptive parenting is not a futile or ineffective undertaking (it is not a *fruitless venture*). Myers notes that while children are not readily changed or formed (*not easily sculpted*) by parental nurture, parents do influence their children's attitudes, values, manners, faith, and politics.

Thinking About Continuity and Stages

Do adults differ from infants as a *giant redwood* differs from its *seedling*—differences mostly created by constant, gradual growth? Or do we change in some ways like the *caterpillar* that becomes a *butterfly*—in distinct stages? The *giant redwood* is a large coniferous tree that grows in a continuous, cumulative way from *seedling* to mature tree. On the other hand, the *butterfly* emerges as a different creature after passing through a stage as a *caterpillar*. The question developmental psychologists ask is: Are changes throughout the life span (from infant to adult) due to a slow, continuous shaping process (like the tree), or do we go through a series of genetically preprogrammed stages (like the butterfly)?

Adulthood

Physical Development

In later life, the stairs get steeper, the print gets smaller, and people seem to *mumble* more. This is not meant to be taken literally. Myers is pointing out that as we become older, our sensory and perceptual abilities change so that our reaction time and our ability to see and hear decline. Thus, the stairs *appear* steeper, the print *seems* smaller, and people do not *appear* to be speaking clearly (they *mumble*).

Aging *levies* another tax as well. Myers is pointing out that aging is accompanied by a decrease in some perceptual and cognitive abilities. Just as you have less money after taxes have been assessed (*levied*) on your income, there are some losses in the brain's ability to function optimally due to the aging process.

Social Development

“*Pair-bonding is a trademark of the human animal,*” observed anthropologist Helen Fisher (1993). *Pair-bonding* refers to the monogamous attachment formed between one person and another, such as with a marriage partner, and this affiliation is characteristic (*a trademark*) of human beings.

Might *test-driving a relationship* with a live-in “trial marriage” *minimize divorce risk*? Does premarital cohabitation or a “trial marriage” (*test-driving a relationship*) increase the probability of a successful later marriage and reduce the likelihood of divorce (*minimize divorce risk*)? The research suggests it does not. Those who live together before marriage are more likely to get divorced than those who don't. (These findings are correlational and can't be used to make causal inferences.)

Today the clock still ticks, but people feel freer about being out of sync with it. The *social clock*, which is applied to both men and women, is the culturally preferred timing of social events such as marriage, parenthood, and retirement. In contemporary society, the timing of these important events in our lives continues to exist (*today the clock still ticks*) but it is less rigid than it once was. Now, people show less concern about adhering to the traditional sequence or timing dictated by the social clock (*people feel freer about being out of sync with it*).

As the years go by, feelings mellow . . . Highs become less high, lows less low. Because bad feelings tied to negative events fade faster than good feelings tied to positive events, most older people have a sense that life has been mostly good. Over time, our emotions get less intense (*feelings mellow*) and tend to have less variability with fewer extremes of either joy (*highs become less high*) or sadness and despair (*lows are less low*).

Thinking About Stability and Change

Many a 20-year-old goof-off has matured into a 40-year-old business or cultural leader. To goof off means to avoid work and act in a lazy manner; a person who behaves this way is called a goof-off. Some traits, such as temperament, are relatively stable over time, but everyone changes in some way with age. Thus, a lazy youth (a 20-year-old goof-off) may develop (mature) into a more productive adult (a 40-year-old leader).