FOCUS ON VOCABULARY AND LANGUAGE

Life is a journey, 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, psychologically, and socially. (Another humorous expression describing the life span or life cycle is from "sperm to worm.")

Prenatal Development and the Newborn
Conception

. . . *the mind boggles* at the *improbable, unbroken, chain of events* that produced you and me. When something is startling, unexpected, or hard to comprehend, we say it *"boggles the mind."* Thus, we are truly astounded and amazed *(the mind is boggled)* by the fact that we are here and exist given the unlikely *(improbable)* continuous series of occurrences *(unbroken chain of events)* that were needed to give rise to a human being.

Prenatal Development

. . . *blasé* . . . This means to be nonchalant or indifferent to stimulation, or to exhibit low responsiveness. **Fetuses** get used to the sounds and vibrations of a noisy hooting *(honking)* device placed on their mother's abdomen. When compared with those not exposed to this stimulation, they show a very low level of responsiveness *(a blasé response)*.

The Competent Newborn

Babies come with software preloaded on their neural hard drives. Similar to computers with preinstalled software applications, babies come equipped with automatic reflex responses perfectly suited for survival *(Babies come with software preloaded on their neural hard drives)*.

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

Infancy and Childhood
Physical Development

After birth, the branching neural networks that eventually enabled you to walk, talk, and remember 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 very rapid development *(a wild growth spurt)* in the number of connections between neurons.

. . . *smothering crib death* . . . When it is time for sleep, parents usually put their babies in small beds with high sides *(cribs)*. If babies sleep face down, they may not be able to breathe properly and might suffocate *(a smothering crib death)*. However, the recommendation that babies sleep face up on their backs *(the back-to-sleep position)* has been associated with somewhat later *crawling* (moving on hands and knees) but not with later walking.

Cognitive Development

In one test, Piaget showed an infant an appealing toy and then *flopped his beret over it*. When Piaget tested **object permanence**, he showed a child an attractive toy and then covered it with his soft round hat *(he flopped his beret over it)*. Very young babies do not search for the hidden toy—when they cannot see it, they don't appear to think about it *(out of sight is out of mind)*.

When she lifted the screen, the infants sometimes *did a double take*, staring longer when shown a wrong number of objects. In her experiment with 5-month-old infants, Karen Wynn showed that very young children were capable of conceptual thinking. She did this by measuring their reaction times against expected and unexpected outcomes. Shown an impossible outcome, infants stared longer *(they did a double take)*. They also demonstrated a mental capacity for detecting changes or differences in the frequency of events.

When Little Red Riding Hood realized her *"grandmother" was really a wolf*, she swiftly revised her ideas about the creature's intentions and *raced away*. Preschoolers gradually begin to understand that other people have their own mental capacities—for example, intentions, motivations, feelings, or beliefs *(they begin forming a **theory of mind**)*. This is illustrated when the young girl in the children's story *Little Red Riding Hood* recognized that the big bad wolf (disguised as her *"grandmother"*) had very bad intentions toward her and she quickly escaped *(raced away)*.

(Close-Up: Autism and "Mind-Blindness") Reading faces is a challenging task for those with autism. Children with autism are believed to have an impaired theory of mind and find it difficult to infer others' thoughts and feelings based on facial expressions *(reading faces is a challenging task)*. For example, they might not be able to discern that another child's sulking expression *(pouting mouth)* signals sadness or that someone's bright-eyed look *(twinkling eyes)* means happiness.

. . . *cognitive milestones* . . . A *milestone* is an event of significance or importance. (Originally, a *milestone* was a large roadside stone 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. Today's researchers see development as more continuous than did Piaget.

. . . *teeter-totter* . . . A *teeter-totter* is a playground toy (also called a *seesaw*). To use it, two people sit at either end of a long plank or bar balanced in the middle and take turns riding up and down. A 3-year-old might not understand that getting off one end of the seesaw *(teeter-totter)* will cause the child on the other end to descend rapidly and hit the ground *(crash)*. Myers notes that parents and teachers should remember that young children are not able to reason logically as adults do.

Better to *build on* what they [children] already know, engaging them in *concrete demonstrations* and stimulating them to *think for themselves*. Preschool and elementary school children think differently from adults. To help them become independent thinkers *(to think for themselves)*, Piaget recommends that adults give them 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, they 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 the food against the soft comfort of

the terry cloth mother *(the contact comfort of the blanket)*, 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 protected and sheltered sanctuary *(safe haven)* to return to when frightened or anxious.

For *goslings, ducklings, or chicks,* that period falls in the hours shortly after *hatching*, when the first moving object they see is normally their mother. A *gosling* is a young goose, a *duckling* a young duck, and a *chick* a young chicken. What all these young fowl have in common is a tendency to follow, or trail after, the first larger moving object they see shortly after they emerge *(hatch)* from the eggshell. This attachment process is called **imprinting**.

Mere exposure to people and things *fosters fondness*. Children do not imprint in the same way that ducklings and other animals do; nevertheless, repeated encounters with (or *exposure* to) other humans and objects encourage or promote liking and **attachment** *(foster fondness)*. As Myers puts it, *familiarity breeds content*. This is a twist on the old saying "familiarity breeds contempt" and suggests that intimacy creates *(breeds)* satisfaction *(contentment)* rather than scorn *(contempt)*.

But fathers are more than just *mobile sperm banks*. A *sperm bank* is where donated sperm is stored until it is used for artificial insemination. More and more research shows that fathers are not simply sperm producers who can move around *(mobile sperm banks)* and get mothers pregnant. Rather, evidence suggests that they are capable caregivers who may interact with their babies much as mothers do.

. . . extreme early *trauma* may nevertheless leave *footprints* on the brain. Distressing, frightening, and shocking experiences *(traumas)* that occur early in development can have an effect on brain functioning. Metaphorically, such *trauma* can leave impressions *(footprints)* on the brain. The production of neurotransmitters such as serotonin, which calms aggressive impulses, is slower *(sluggish)* in abused children who become aggressive teens and adults.

To see whether a child recognizes that the girl in the mirror is indeed herself, researchers *sneakily dabbed* color on the nose. Researchers use a clever technique to find out when a child realizes that her mirror image is herself and not another child. Unobtrusively *(sneakily)* and without the child's awareness, they gently rub *(dab)* some colored cosmetic makeup on the child's nose before allowing her to view herself in the mirror. If a child has a **self-concept**, she will be surprised at the colored spot and touch her nose. This actually happens by 15 to 18 months of age. From that point forward self-concept begins to grow and develop (it *blossoms into more detailed descriptions* of self).

Some parents spank, some reason. Some are strict, some are lax. When it comes to child-rearing practices *(parenting styles)*, there is much variability: (a) some parents impose rigid rules and expect them to be followed without question *(they are strict)*—they are referred to as *authoritarian* parents *(too hard)*; (b) parents who are *permissive (too soft)* allow children to do as they wish, make few demands on them, and use little punishment *(they are lax)*; and (c) parents who are *just right—authoritative* parents—set rules and enforce them but discuss the reasons for the restrictions. With older children, *authoritative* parents encourage open discussion and may allow exceptions to 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.

Adolescence

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

Physical Development

For boys, early maturation has mixed effects. If the onset of **puberty** occurs before the expected or usual time *(early **maturation**)*, it will be much less stressful for boys than for girls. In general, for boys in their early teen years, being stronger and more athletic leads to more self-assurance, greater popularity, and greater independence; but it also puts them more at risk for alcohol use, delinquency, and premature sexual activity *(it has mixed effects)*.

If a young girl's *body and hormone-fed feelings* are *out of sync* with her emotional maturity and her friends' physical development and experiences, she may begin *associating* with older adolescents or may suffer *teasing* or *sexual harassment* (Ge & Natsuaki, 2009). *Sync* is an abbreviation of the word *synchronize*, which means to occur at the same time. So, if a girl's biological development *(her body and hormone-fed feelings)* is not proceeding at the same rate *(is out of sync)* with her emotional and social development, she may start socializing *(associating)* with and imitating the behavior of older girls. Thus, early maturation can be a problem for girls, especially if the people around them react in an inappropriate or suggestive manner to their physical development *(sexual harassment)* or make fun of them *(tease them)*.

Cognitive Development

When adolescents achieve *the intellectual summit* Jean Piaget called *formal operations . . .* The **formal operational stage** is the highest level in Piaget's theory of cognitive development *(the intellectual summit)*. Most adolescents reach this stage and become capable of logical and abstract reasoning. For example, many think about *(ponder)* and discuss *(debate)* such issues as good and evil, truth and justice, and other abstract topics about human nature.

Two crucial tasks of childhood and adolescence are discerning right from wrong and developing *character—the psychological muscles for controlling impulses*. *Character* refers to the total qualities a person possesses, including attitudes, beliefs, interests, actions, and a philosophy of life. By developing *character*, adolescents learn to have the intellectual strength *(psychological muscles)* to refrain from acting immorally *(to control their impulses)*. Much of our morality is derived from *(rooted in)* our emotions and passions *(quick gut feelings—the "low road" of unconscious, automatic thinking)*, which the mind seeks to justify or rationalize *(the intuitionist perspective on morality)*. Kohlberg proposed a stage theory of moral reasoning that has three levels: *preconventional*, *conventional*, and *postconventional*.

Kohlberg claimed these levels form a *moral ladder*. In Kohlberg's view, children have to proceed in succession through each of the three stages of moral thinking *(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.

. . . *throw the switch* . . . This means to pull a lever. People's moral reasoning and judgments are affected by basic emotional reactions *(quick gut feelings)*. This phenomenon is evident in situations that require a choice between two unpleasant alternatives *(a dilemma)*. In the Myers example, either pulling a lever *(throwing a switch)* to switch the tracks or pushing a person onto the tracks results in five people being saved and one person dying. However, the latter choice causes much more emotional conflict *(the brain's emotion areas light up)*.

Our moral thinking and feeling surely affect our moral talk. But sometimes *talk is cheap* and emotions are fleeting. The expression *talk is cheap* means that it is easy to say you believe something or to say that you are going to do something—it costs you nothing just to speak about it *(talk is cheap)*. However, action—that is, actually following through with the correct behavior—is also involved in morality.

Social Development

. . . *psychosocial task* . . . According to Erikson, each stage of life involves a problem (a *crisis* or *psychosocial task*) 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 try to achieve *(they strive for) competence*—feeling able and productive. The psychosocial assignment *(psychosocial task)* of adolescence involves *role confusion vs. identity formation*. (This is sometimes called an "identity crisis.")

As sometimes happens in psychology, *Erikson's interests were bred by his own life experience*. Erikson's approach to **developmental psychology** was influenced by events in his own life *(his interests were bred by his own life experience)*. Certain incidents that happened to him motivated him to research the adolescent struggle for **identity** *(such episodes fueled his interest)*.

Erikson noticed that some adolescents *forge* their identity early, simply by adopting 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 taking on *(adopting)* their parents' beliefs, attitudes, ethics, and so on. He further observed that other young people are influenced more by specific peer groups such as athletes *(jocks),* computer and technology lovers *(geeks),* nonconformist dressers *(goths)*, or neat and traditional dressers *(preps)* when forming their identities.

. . . the 14-year-old who *wouldn't be caught dead holding hands with Mom*. To say you *"wouldn't be caught dead"* doing something means you would be extremely reluctant to do this thing under any circumstances. When adolescents in Western cultures attempt to develop their own identities, they begin to distance themselves from their parents *(they pull away)*. Thus, the younger child who has a very strong need to be near her mother *(she loves to touch and cling)* 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 individual temperament and personality differences . . . Genetic inheritance and biological predispositions contribute much *(they do much of the heavy lifting)* to the formation of individual differences in personality and temperament—and peer influences do much of the rest.

Reflections on Continuity and Stages

Do adults differ from infants as a *giant redwood* differs from its seedling . . . ? Or do they differ as a *butterfly* differs from a caterpillar . . . ? 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. Developmental psychologists ask: Are changes throughout the *life span* (from infant to adult) due to a slow, continuous shaping process (like the *giant redwood* tree), or do we go through a series of genetically preprogrammed stages (like the *butterfly*)?

Adulthood

Physical Development

Although physical decline begins in early adulthood, we are not usually acutely aware of it until later life, when *the stairs get steeper, the print gets smaller, and other people seem to mumble more*. This statement is not meant to be taken literally. Myers is pointing out that as we become older our sensory and perceptual abilities change, causing a decline in our reaction times and our ability to see and hear. Thus, the *stairs appear steeper*, the *print seems smaller*, and people do not appear to be speaking clearly (they *mumble*).

Aging *levies* a tax on the brain by *slowing our neural processing*. 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 *(slower neural processing)*.

We are more likely to *rust from disuse than to wear out from overuse*. When adults remain physically active, there are numerous benefits—more cell development, more neural connections, increased mental agility, improved memory, clearer reasoning ability, better maintenance of the *telomeres* that protect the ends of chromosomes, and the promotion of neurogenesis (especially in the hippocampus). If we have a sedentary lifestyle, we will be like unused pieces of metal machinery that suffer from *rust*. On the other hand, keeping active will not do us any harm (we won't *wear out from overuse*); instead, we may benefit both mentally and physically (those who use it, less often, lose it).

Social Development

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

"*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 (for example, with a marriage partner). This affiliation is a common characteristic *(trademark)* of human beings.

Might test-driving life together in a "trial marriage" minimize divorce risk? Myers is asking whether premarital cohabitation or a *"trial marriage" (test-driving life together)* increases the

probability of a successful later marriage, reducing the likelihood of divorce *(minimizing divorce risk)*. Research suggests it does not. Those who live together before marriage, especially those cohabiting prior to becoming engaged, are more likely to get divorced than those who do not.

Some couples fight but also *shower each other with affection*. Other couples *never raise their voices* yet also seldom *praise each other or nuzzle*. Myers notes that some couples have many open conflicts but also treat each other with warmth and care *(shower each other with affection)*, while others who seldom argue loudly *(never raise their voices)* may fail to be openly complimentary *(praise each other)* or to tenderly embrace or cuddle together *(nuzzle)*. Although both styles can work, the best predictor of marital success is a ratio of at least five positive interactions (smiling, touching, complimenting, and laughing) to one negative interaction (sarcasm, criticism, putdowns, and insults).

For most people, however, an *empty nest* is a happy place. The "*empty nest* syndrome" refers to the belief that parents suffer great anguish when their children finally leave home. This departure is significant and sometimes not easy. However, for many parents, the absence of their children from the house *(the empty nest)* is not a cause for unhappiness; instead, it may result in a warmer and more intimate relationship similar to when they were first married *(the "postlaunch honeymoon")*.

As the years go by, *feelings mellow . . . Highs* become less high, *lows* less low. Our feelings become less extreme *(they mellow)* as we age—the excitement and elation *(highs)* and the depression and gloom *(lows)* do not encompass such a broad range of feelings as they once did. Myers states it nicely when he says, *"As we age, life becomes less of an emotional roller coaster."*

Reflections on Stability and Change

The *hard-driving* young adult may *mellow* by later life, yet still be *a relatively driven senior citizen*. There is a great deal of consistency in temperament and emotionality over the life span, but in some ways we all change with time. Thus, the highly motivated and somewhat obsessive *(hard-driving)* young adult may get less so by later in life (he may *mellow*); yet, relative to others, he may appear to be fairly single-minded and determined when he gets to retirement age *(a relatively driven senior citizen)*.