FOCUS ON VOCABULARY AND LANGUAGE

Page 173: As we *journey* through life—from *womb to tomb*—when and how do we develop? 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.")

Infancy and Childhood

Page 177: . . . toddler . . . This term describes a child who is beginning to learn to walk and who walks with short, uneven steps.

Page 177: 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 a very rapid development (a *wild growth spurt*) in the number of connections between neurons.

Page 178: . . . 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.

Page 181: In one test, Piaget showed an infant an appealing toy and then *flopped his beret over it*. When Piaget tested object permanence, he showed the 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*).

Page 182: When she lifted the screen, the infants sometimes *did a double take*, staring longer when shown a wrong number of objects. In this experiment with 5-month-old infants, Karen Wynn showed that these very young children were capable of conceptual thinking. She did this by measuring their reaction times to 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 (they *had a head for numbers*).

Page 184: 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 called *Little Red Riding Hood* recognizes that the big bad *wolf* (disguised as her *"grandmother"*) has very bad intentions toward her and she quickly escapes (*races away*).

Page 186: . . . 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.

Page 188: 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. In order for them to become independent thinkers (*think for themselves*), Piaget recommends that they be given specific, tangible examples (*concrete demonstrations*) that utilize (*build on*) their existing knowledge.

Page 189: 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 food against the soft comfort of the terry cloth mother (*contact comfort*), they were surprised that the monkeys preferred the 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.

Page 189: 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**.

Page 190: 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** (*fosters 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*).

Page 191: 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 they are capable caregivers who may interact with their babies much as mothers do.

Page 192: Extreme early *trauma* seems to 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.

Page 194: In a simple variation of the mirror procedure, researchers *sneakily dabbed rouge* on children's noses before placing them in front of the mirror. 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 red makeup (*rouge*) 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 red spot and touch her nose. This actually happens around 15 to 18 months of age, and self-concept begins to grow from that point forward.

Page 195: 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 use *strict* controls and physical punishment (*spanking*); (b) others talk and discuss problems and issues with their children (*reason with them*); and (c) still others allow their children to do what they want, making few demands of them (*they are lax*). Myers identifies these parenting styles as (a) *authoritarian*, (b) *authoritative*, and (c) *permissive*.

Adolescence

Page 196: ***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).

Page 198: For boys, *early maturation pays dividends*. 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 (*it pays dividends*).

Page 198: If a young girl's body is *out of sync* with her own emotional maturity and her friends' physical development and experiences, she may begin associating with older adolescents or may suffer *teasing* or *sexual harassment*. *Sync* is an abbreviation of the word *synchronize*, which means to occur at the same time. So, if a girl's biological development is not proceeding at the same rate (is *out of sync*) with her emotional and social development, she may start fraternizing (*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*).

Page 199: Gradually, though, most achieve *the intellectual summit* 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.

Page 200: 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 feelings and passions (our *gut-level reactions*), which the mind seeks to justify (*the social-intuitionist account of morality*). Kohlberg proposed a controversial stage theory of moral reasoning that has three levels: *preconventional*, *conventional*, and *postconventional*.

Page 200: Kohlberg claimed these levels form a *moral ladder*. In Kohlberg's view, children have to go through each of the three stages (*preconventional*, *conventional*, and *postconventional*) in succession—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.

Page 201: . . . throw the switch . . . This means to pull a lever. People's moral reasoning and judgments are affected by basic emotional reactions (*gut-level 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*).

Page 201: 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.

Page 202: . . . psychosocial task . . . According to Erikson, each stage of life involves a dilemma (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. The psychosocial assignment (*psychosocial task*) of adolescence involves *role confusion vs. identity formation*. (This is sometimes called an "identity crisis.")

Page 203: 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, while others never quite appear to acquire a strong feeling of who they are (i.e., they do not *find themselves*).

Page 204: . . . 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. Young children show a very strong need for affection and closeness (they *love to touch and cling*). But teenagers seek more independence and would not think to engage in public displays of close affection with their mothers (*the 14-year-old who wouldn't be caught dead holding hands with Mom*).

Page 205: . . . heredity *does much of the heavy lifting* in forming individual differences in temperament and personality . . . Genetic inheritance and biological predispositions contribute much (they *do the heavy lifting*) to the formation of individual differences in personality and temperament.

Page 205: In young adulthood, *emotional ties with parents loosen* further. During their early twenties, many people *still lean heavily on their parents.* The time period between 18 and the mid-twenties is sometimes called the **emerging adulthood** stage. During this period, young adults have less need for close emotional contact with parents (*emotional ties with parents loosen*). Nevertheless, many still rely on their parents for financial and social support (*they still lean heavily on their parents*).

Adulthood

Page 208: The above statements—all false—are among the *misconceptions* about aging *exploded* by recent research. To "*explode misconceptions*" means to dispel or get rid of erroneous beliefs that have no foundation in fact. The false statements (*misconceptions*) listed in the text have all been refuted by the results of new experiments and investigations.

Page 209: . . . something very serious is afoot . . . This means that there is cause for concern or worry about some event or phenomenon. When populations decline because they are not being replaced through reproduction, something dangerous or threatening may be taking place (*something serious is afoot*).

Page 210: In later life, 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*).

Page 210: 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.

Page 211: 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 life style, 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).

Page 214: According to this more optimistic view, the *myth* that intelligence sharply declines with age was *laid to rest*. The false idea (*myth*) that our intellectual abilities decrease as we get older has been destroyed or buried (*laid to rest*) by **longitudinal research**. This research tests

the same group of people over many years and may give more accurate results than testing many groups of people (each group having a different age range) at one period in time (**cross-sectional research**). However, both research methods have their own problems (*pitfalls*).

Page 215: . . . hold their own . . . Older adults compare favorably with younger adults (they *hold their own*) on tests that assess general vocabulary, knowledge, and ability to integrate information. As Myers notes, **crystallized intelligence** (accumulated knowledge and verbal skills) tends to increase with age, whereas **fluid intelligence** (ability to reason rapidly and abstractly—*quick thinking smarts*) tends to decrease during late adulthood.

Page 217: "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 (e.g., with a marriage partner), and this affiliation is a common characteristic (*a trademark*) of human beings.

Page 218: 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 are more likely to get divorced than those who do not. (These findings are correlational and cannot be used to make causal inferences.)

Page 219: Some couples fight but also *shower one another with affection*. Other couples *never raise their voices* yet also seldom *praise one another* or *nuzzle*. Myers notes that some couples have many open conflicts but also treat each other with warmth and care (*shower one another with affection*), while others who seldom argue loudly (*never raise their voices*) may fail to be openly complimentary (*praise one another*) 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 5 to 1 positive interactions (smiling, touching, complimenting, and laughing) to negative interactions (sarcasm, criticism, putdowns, and insults).

Page 221: Also, 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 an emotional roller coaster."

Reflections on Two Major Developmental Issues

Page 223: 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. The question developmental psychologists ask is this: 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)?