

## ***FOCUS ON VOCABULARY AND LANGUAGE***

*Having bagged nearly all of Colorado's tallest peaks, many of them solo and in winter . . .* Aron Ralston was an expert mountaineer who had successfully climbed (*bagged*) nearly all of Colorado's highest mountains (*tallest peaks*), many of them as a lone climber (*solo*) and in winter, too. The remarkable story of how he cut off his own arm when it was trapped (*pinned*) under a large rock illustrates how **motivation** can energize and direct behavior.

### **Motivational Concepts**

#### *Arousal Theory*

Curiosity drives monkeys to *monkey around* trying to figure out how to unlock a latch that opens nothing, or how to open a window that allows them to see outside their room (Butler, 1954). The expression "*monkey around*" means to play or fool around with something. Monkeys and young children have a very great need to explore and find out about their surroundings. Arousal theory suggests that we are driven to seek stimulation and increase our level of arousal to some comfortable state which is neither too high nor too low (an *optimum level*).

### **Hunger**

They talked food. They daydreamed food. They collected recipes, read cookbooks, and *feasted their eyes on tasty but forbidden food*. In this experiment, subjects were given only half their normal intake of food, and the men became lethargic (*sluggish and dull*), focused all their thoughts on the topic of food, and looked longingly at (*feasted their eyes on*) pictures of delicious, but unobtainable, food (*tasty but forbidden food*). The semistarved men's obsession (*preoccupation*) with food demonstrates how motives can take over (*hijack*) conscious thought processes, and this supports Maslow's theory that there is a **hierarchy of needs**.

#### *The Physiology of Hunger*

Somehow, somewhere, your body is *keeping tabs on* the energy it takes in and the energy it uses. People and nonhuman animals naturally and automatically tend to control food intake in order to keep a relatively constant body weight. This indicates that there is a mechanism, or mechanisms, which monitor (*keep tabs on*) energy fluctuations. Levels of the blood sugar **glucose** and certain brain chemicals may play a role in this process.

#### *The Psychology of Hunger*

When stressed, even rats find it extra rewarding to *scarf* Oreos. When we are anxious, tense, or depressed, we tend to have a preference for starchy, high carbohydrate foods, such as potato chips, candies, chocolate, and cookies (e.g., Oreos). These foods help boost serotonin levels in the brain, providing a calming effect. Research has shown that even rats will tend to overeat (*scarf*) when stressed.

#### *Close-Up: Eating Disorders*

*Binge-purge . . .* People who have an eating disorder called **bulimia nervosa** may have episodes of overeating (*bingeing*). The bulimic person (typically females in their late teens or early twenties)

usually follows the overeating episode (the *binge*) with self-induced vomiting, a disproportionate amount of exercise, and excessive laxative use (the *purge*).

### *Obesity and Weight Control*

Why do so few overweight people *win the battle of the bulge*? Most overweight people who diet do not manage to permanently lose the many pounds of fat they want to (*they do not win the battle of the bulge*). Myers discusses a number of factors: (a) the number of fat cells in the body does not decrease when you diet; (b) the tissue in fat is easier to maintain and uses less energy than other tissue; (c) when body weight drops below the **set point**, your overall **metabolic rate** slows; (d) genetic influences; and (e) sleep deprivation, lower levels of physical activity, and greater availability of fattening foods. For those who want to diet, Myers lists some useful tips (see *Close-Up: Waist Management*).

*Pretty much everywhere this book is being read, people have a growing problem.* This sentence has a double meaning. While a “*growing problem*” is one that is becoming increasingly worse, the phrase can also refer to the fact that people are getting fatter and heavier (*they have a growing problem*). Obesity rates have continued to increase (the *rates have quadrupled*) over the past few decades, and in most places (*pretty much everywhere*) this book is being read, people are getting fatter (*they have a growing problem*).

The risks are greater for *apple-shaped* people who *carry their weight in pot bellies* than for *pear-shaped* people with ample hips and thighs. Significant obesity increases the risk of many diseases and thus shortens life expectancy. People who have a more regularly proportioned physical build, but whose excess weight tends to accumulate around the abdomen (*they are apple-shaped; they carry their weight in pot bellies*) are more at risk than those people with a body shape that has proportionally more mass in the thighs and hips and less in the upper body (*they are pear-shaped*).

*Our genes influence the size of our jeans.* Myers is using a play on words here, suggesting that the complex interaction involved in our genetic make-up (*genetic influences*) may influence the amount of excess weight we gain and correspondingly the size of the denim pants we wear (*the size of our jeans*).

It [New York City] has mostly replaced its 17.5-inch *bucket-style subway seats* with *bucketless seats* for *Big Apple bottoms*. New York City is known as the *Big Apple*, and city officials have replaced the smaller, individual 17.5-inch rounded seats (*bucket-style seats*) common on the underground trains (the *subway*) with bench-style seats (*bucketless seats*). This has been done to accommodate the larger-sized buttocks of New Yorkers (their *Big Apple bottoms*)

Taken together, sleep loss, *Big Macs*, large fries, *sugar-laden drinks*, and inactivity form a *weapon of mass inflation*. Many of the foods we consume, such as hamburgers (*Big Macs*) and sweetened beverages (*sugar-laden drinks*), along with sleep deprivation and physical inactivity, contribute to obesity and health-related problems, which endanger the well-being of the population. In a sense, they are like bombs that can cause serious injuries to many people (i.e., *weapons of mass destruction*, though here it is humorously rephrased as “*weapons of mass inflation*”). Myers uses humor to make the point about the dangers of obesity, using allusions to *fat buttocks* . . . “*growing population*” . . . “*eighteen-inch butts*” . . . *Big Apple bottoms* . . . and “*The ‘bottom’ line: Today’s people need more room.*”

## The Need to Belong

### *The Pain of Being Shut Out*

Perhaps you received the *silent treatment*. Perhaps others avoided you, looked away, *mocked* you, or *shut you out* in some other way. For both adults and children, to be ignored (*shut out* or *shunned*), to be treated with disdain and made fun of (*mocked*), or deprived of verbal interactions with others (given the *silent treatment*) is very distressing and upsetting. This type of social exclusion (*ostracism*) makes us feel isolated and abandoned (*it threatens our need to belong*) and can lead to depression, withdrawal, and deadened feelings (*emotional numbness*).

## Theories of Emotion

In an instant, *the arousal of dread spilled into ecstasy*. When Myers finally located his lost child (*toddler*) in the store, his apprehension and fear (*the arousal of dread*) transformed (*spilled*) into a heightened and intense feeling of happiness (*ecstasy*), and he was overcome with positive emotions (*awash in grateful joy*). This story illustrates the various components of emotion—bodily arousal, expressive behaviors, and conscious experience.

*A chicken-and-egg debate . . .* The old riddle asks, “Which came first, the chicken or the egg?” Myers asks two questions, (a) which comes first, our bodily arousal or our emotional feelings? and (b) does cognition (thinking) always precede emotion? Regarding (a), the **James-Lange theory** proposes that physiological arousal comes before the experience of emotion while the **Cannon-Bard theory** suggests they are experienced simultaneously but separately. And for (b) the **two-factor theory** suggests that physiological arousal has to be cognitively interpreted for one to experience different emotions. Stanley Schachter’s research showed that the same arousal (*stirred-up state*) can be experienced as two very different emotional states (e.g., euphoria or irritation) depending on how we interpret and label it. Thus, thinking comes before feeling.

Common sense tells most of us that we cry because we are sad, *lash out* because we are angry, *tremble* because we are afraid. The James-Lange theory states that physiological arousal precedes the experience of emotion. Thus, we cry first, then feel sad; we strike someone (*lash out*), then experience the anger; we shiver and shake (*tremble*), then feel fear. The Cannon-Bard theory proposes that physiological arousal and the experience of emotion occur at the same time but separately. One does not cause the other.

These men reported increases in *weeping*, *lumps in the throat*, and *getting choked up* when *saying good-bye*, *worshipping*, or *watching a touching movie*. For emotions expressed mostly in body areas above the neck, people with high spinal cord injuries reported more intense reactions, such as crying (*weeping*), becoming inarticulate (having *lumps in the throat*), and being overcome emotionally (*getting choked up*) when parting company (*saying good-bye*), participating in religious ceremonies (*worshipping*), or viewing a sentimental film (*watching a touching movie*). On the other hand, emotional intensity for most other feelings decreased substantially, especially if they involved body areas below the neck. Feelings of extreme annoyance (*anger*) did not have the emotional intensity (*didn’t have the heat to it*) they once had, and were experienced in a more intellectual way (*a mental kind of anger*). This provides partial support for the James-Lange theory, which proposes that physical reactions are important in the experience of emotions.

## Embodied Emotion

### *Emotions and the Autonomic Nervous System*

. . . *your stomach develops butterflies* . . . When we are apprehensive and fearful, we have internal sensations that may feel as though small flying insects are fluttering around in our stomachs (*your stomach develops butterflies*). Our muscles become taut (they *tense*), our mouths feel parched (*dry*), and we have many other physiological reactions—all automatically controlled by the *autonomic nervous system (ANS)* as it prepares the body for action.

### *The Physiology of Emotions*

If afraid, you may feel a *clutching, sinking sensation* in your chest and a *knot in your stomach*. Different emotions (anger, fear, sadness) feel and look different. Someone who is extremely afraid may have certain internal reactions such as tightness in the upper abdomen (*a clutching, sinking sensation*) and feel a lump (*knot*) in the stomach. An angry person may experience an increase in temperature and sweating (may feel “*hot under the collar*”) along with an intense desire to vent feelings of rage (may be “*ready to explode*”). There is some evidence of different physiological or brain patterns corresponding to each emotion.

### *Thinking Critically About: Do Lie Detectors Lie?*

*Pinocchio's giveaway lying signal* may turn out to be not the length of his nose, but rather the telltale activity in his brain. *Pinocchio* is a fictional character in a children's story whose nose grows longer every time he tells a lie. The **polygraph**, or lie detector, does not detect lies; rather, it measures a number of physiological reactions (heart rate, blood pressure, and perspiration—*telltale signs*) that indicate a change in emotional state. Unlike *Pinocchio*, when people are given a standard polygraph test, they display no reliable or valid indicators of whether they are lying or telling the truth (they don't have *Pinocchio's giveaway lying signal*). In contrast, *guilty knowledge tests* are more accurate. More recent research examining microfacial expressions or activity in certain brain areas (*the seat of deceit—the brain*) may prove to be better at detecting (*nabbing*) liars.

### *Cognition and Emotion*

. . . *testy* . . . This means to be ill-tempered or irritable. In one study, **participants** were physiologically aroused with an injection but told the drug would have no effect. They were later affected by (they “*caught*”) the apparent emotional state of the person they were with, but they did not know why. They made different attributions about their aroused (*stirred-up*) state (saying “I'm happy” or “I'm feeling *testy*”) on the basis of whether the accomplice acted in a euphoric or irritated way.

. . . “Feelings that one interprets as fear in the presence of a *sheer* drop may be interpreted as *lust* in the presence of a *sheer* blouse.” Two different meanings of the word “*sheer*” contribute to the humor of this quote. A *sheer* drop is a very steep, downward slope that, if interpreted as dangerous, may produce feelings of intense anxiety. On the other hand, a *sheer* blouse is a very thin almost transparent female garment; the sight of a woman wearing such a see-through (*sheer*) shirt can arouse feelings that may be interpreted as sexual desire (*lust*). An emotion, such as arousal (a *stirred-up state*), can be experienced in very different ways depending on how we interpret and label it. As Myers notes, arousal may stimulate (*fuel*) emotion, but cognition gives it direction (*channels it*).

Is the *heart* always subject to the *mind*? Robert Zajonc proposed that some emotional states are not preceded by cognitions. Our emotions (*heart*) are not determined by our thoughts (*mind*). We can have *some* feelings, at least, without thinking first. These responses often involve unconscious processing.

The amygdala's structure makes it easier for our feelings to *hijack* our thinking than for our thinking to *rule* our feelings (LeDoux & Armony, 1999). Some neural pathways go from the ear or eye via the thalamus to the amygdala, an emotional control center, detouring around (*bypassing*) the cortical areas involved in thinking (they take the "*low road*"). This makes it possible to have extremely rapid (*greased-lightning*) emotional responses before cognitive factors become involved. Thus, our feelings can take over (*hijack*) our thinking, instead of our thinking controlling (*ruling*) our emotions.

Automatic emotion and conscious thinking together *weave the fabric of our minds*. Just as a person working on a loom creates cloth by interlacing threads of material (thus, *weaving* the fabric), our automatic emotion and conscious thinking work together to create or construct our mental experiences (to *weave the fabric of our minds*).

## **Expressed Emotion**

### *Detecting Emotion in Others*

Most of us *read nonverbal cues* fairly well. We communicate our feelings with words (*verbally*) and through body language (*nonverbally*). Without hearing a single word, we can discern much about someone's emotional state by observing (*reading*) his or her bodily actions and facial expressions. As Myers notes, when we look at a large group of faces, a single angry face will be extremely noticeable (will "*pop out*") and will be detected more quickly than a single happy face.

. . . *slapstick comedy* . . . *Slapstick comedy's* humor is derived from fast physical actions and obvious jokes rather than language and verbal nuances. Women are more likely to express their feelings and have greater empathy (*the women's faces showed much more emotion*) than men when watching a variety of videotapes, such as those that are sad, happy (e.g., a *slapstick comedy*), or frightening.

### *Culture and Emotional Expression*

*Ditto for anger*, and to a lesser extent the other basic expressions (Elfenbein & Ambady, 1999). People, regardless of their cultural backgrounds, or racial or ethnic origin, are very consistent in being able to categorize different facial expressions as being happy, sad, disgusted, surprised, or fearful. They do equally well for anger (*ditto for anger*).

A *sneer*, for example, retains elements of an animal's baring its teeth in a *snarl*. Darwin believed that all humans have inherited the ability to express emotions through very similar facial expressions. Thus, a person's scornful or contemptuous grimace (*sneer*) has many aspects of the fierce growl with teeth showing (the *snarl*) typical of dogs and other animals. Emotional expressions are one form of social communication.

### *The Effects of Facial Expressions*

. . . *Fake a big grin. Now scowl*. Can you feel the "smile therapy" difference? Clearly, our moods affect how we look, but Myers is inviting you to test the idea that your facial expression can affect

your mood. Make a large, false smile (*fake a grin*). Next, wrinkle or furrow your brow, frown and look sullen (*scowl*). Subjects in numerous experiments felt different emotions under these conditions. Smile and inside you feel happy, scowl and you may see the world as more miserable than it is. This tendency for facial muscle states to elicit matching emotional states is called the **facial feedback effect**.

### ***Experienced Emotion***

#### *Anger*

Does this mean that we should, as some popular books and articles advise, release our angry feelings by *lashing out* at those who offend us? The idea is that expressing your anger openly (*lashing out* or *venting your anger*) provides some form of emotional release (*catharsis*), and that this is better than not expressing your feelings and holding your anger inside. Under certain circumstances, this may provide temporary relief, but the evidence also suggests that expressing anger can increase or magnify (*breed more*) anger.

*If stressed teachers find they can drain off some of their tension by exploding at a student . . .* Myers notes that if a teacher gets very angry at (*explodes at*) a student, this can increase or amplify the teacher's hostile emotions, but, in addition, it may also be reinforcing because it releases some of the frustration (*it drains off some of the tension*). Consequently, the next time these feelings arise, the more likely it is that the hostile behavior will be repeated.

*Without letting the offender off the hook or inviting further harm, . . .* We can hold a wrongdoer (*offender*) responsible or accountable for his or her actions (*we don't let the offender off the hook*) and at the same time excuse or pardon (*forgive*) his or her behavior. We may feel less angry and more calm (*our negative feelings, perspiration, blood pressure, heart rate, and facial tension may lower*) when compared with how we feel when we maintain feelings of resentment (*when we hold or rehearse grudges*).

#### *Happiness*

These findings lob a *bombshell* at *modern materialism* . . . The contemporary tendency to accumulate wealth and possessions (*modern materialism*) in industrialized and affluent countries has not resulted in greater happiness. This finding challenges and destroys (*lobs a bombshell at*) the myth that riches (*affluence*) bring happiness and social well-being.

#### *Close-Up: Want to Be Happier?*

*Off your duffs, couch potatoes!* In *Close-Up: Want to Be Happier?* Myers lists a number of research-based suggestions for elevating our moods and creating more contentment and fulfillment with life. One recommendation is to become more physically active (*join the "movement" movement*). A vast amount of research shows very clearly the benefits of regular aerobic exercise in terms of better overall health, higher levels of energy, and lower levels of anxiety and depression. Myers advises sedentary people (*couch potatoes*) to get out of the sitting position (*get off your duffs*) and start exercising regularly.