

 Introduction

**Welcome to Module 8!**

In this module, we will explore motivation and emotion.  We will analyze dynamics surrounding motivation, including biological drives and relevant psychological theories. We will also explore emotion and the ways in which culture impacts emotion and expression of emotions.

Textbook 8.1: Motivation

Motivation

Overview

Motivation is the psychological driving force that influences goal pursuit. This section will take a social-cognitive approach to define and address the factors of motivation in individuals. The development and implementation of social-cognitive processes underlying goal adoption, self-regulation, and self-control will be discussed.

Introduction

Whether your goal is to pass a course, eat healthy foods, or land on Mars, you need a certain level of motivation to stay on course and achieve it. A goal is the cognitive representation of a desired state (Fishbach & Ferguson 2007; Kruglanski, 1996); whereas, motivation refers to the psychological driving force that enables action in the pursuit of that goal (Lewin, 1935). The desired end state of a goal can be clearly defined (e.g., step on the surface of Mars), or more abstract and represent a motivational state that is never fully completed (e.g., eating only healthy foods). Motivation can stem from the benefits associated with the process of pursuing a goal (intrinsic motivation). For example, you might be driven by the desire to have a fulfilling experience while working on your mission to step on the surface of Mars. Motivation can also come from the benefits associated with achieving a goal, such as fame and fortune (extrinsic motivation) (Deci & Ryan, 1985).

Goals and Motivation

Goals are fundamental guides for human behavior. Some are biological in origin, some are cultural in nature, and some are unique to the individual. Social psychologists recognize that goal pursuit and motivation do not depend solely on an individual’s personality but rather are products of personal characteristics and situational factors. Indeed, cues in a person’s immediate environment—including images, words, sounds, and the presence of other people—can activate or prime a goal. This activation can be conscious, such that the person is aware of environmental cues that made him or her want to pursue a goal (i.e., why?), as well as awareness of his or her resulting goal-directed judgments and behaviors (i.e., how?). However, this activation can also occur outside a person’s awareness and lead to nonconscious goal pursuit. In this case, the person is unaware of why he or she is pursuing a goal or does not even realize that he or she is pursuing a goal.

In this textbook section, we review key aspects of goals and motivation. We first discuss the origins and manifestation of goals. Then, we will review factors that influence individuals’ motivation in the course of pursuing a goal, such as studying an 800-page book for an exam (self-regulation). Finally, we will discuss what motivates individuals to keep following their goals when faced with other conflicting desires, such as when a tempting opportunity to socialize on social media presents itself in the course of studying for an exam (self-control).

Goal Adoption

What makes you commit to a goal? Commitment stems from a sense that your goal is both valuable and attainable, such that you adopt goals that are highly likely to bring positive outcomes (the value × expectancy model) (Fishbein & Ajzen, 1974; Liberman & Förster, 2008). This process of committing to a goal can occur without much conscious deliberation. For example, people infer value and attainability and become committed to a goal because they previously engaged in behaviors consistent with that goal. Indeed, people often learn about themselves in the same way they learn about other people: By observing their own behaviors and drawing inferences about their own preferences. Thus, after going through a kickboxing class, you might infer from your efforts that you are indeed committed to staying physically fit (Fishbach, Zhang, & Koo, 2009).

Goal Priming

What makes people adhere to a goal in any given context? Cues in the immediate environment (e.g., objects, images, words, and sounds) can influence the pursuit of goals to which people are already committed (Bargh, 1990; Custers, Aarts, Oikawa, & Elliot, 2009; Förster, Liberman, & Friedman, 2007). In memory, goals are organized in associative networks, which connect each goal to corresponding means (i.e., activities or objects that contribute to goal attainment; Kruglanski et al., 2002). For example, the goal to stay physically fit may be associated with several means, including the nearby gym, one’s bicycle, or a training partner. Cues related to the goal or means will activate or prime that goal pursuit. For example, the presence of one’s training partner or the word “workout” in a puzzle can activate the goal of staying physically fit and increase a person’s motivation to exercise. Soon after goal priming, the motivation to act on a goal peaks, and then slowly declines after some delay, as the person moves away from the prime or after the person pursues the goal (Bargh, Gollwitzer, Lee-Chai, Barndollar, & Trotschel, 2001).

Goal Activation

The activation of a goal and accompanying increase in motivation can influence many aspects of behavior and judgment, including how people perceive, evaluate, and feel about the world around them. Indeed, motivational states can alter something as fundamental as visual perception. Thus, Balcetis and Dunning (2006) found research that participants automatically identified an ambiguous figure (e.g., I3) as a letter (B) or number (13) depending on whether seeing a letter or a number lead to a positive outcome within the experimental context.

Goals can also exert a strong influence on how people evaluate the objects (and people) around them. When pursuing a goal such as quenching one’s thirst, people evaluate goal-relevant objects (e.g., a glass) more positively than objects that are not relevant to the goal (e.g., a pencil) and more positively than people who are not pursuing the goal (Ferguson & Bargh, 2004). Finally, priming a goal can lead to behaviors consistent with that goal without awareness of the source of this motivation. For example, after seeing words related to achievement, research participants automatically performed better on a subsequent achievement test (Bargh & Chartrand, 1999; Srull & Wyer, 1979).

Self-Regulation in Goal Pursuit:  From Deliberation to Implementation

Self-regulation refers to the processes through which individuals alter their perceptions, feelings, and actions in the course of pursuing a goal. Self-regulation involves two basic stages associated with two distinct mindsets: Deciding which of many potential goals to pursue at a given point in time (deliberative phase) and planning specific actions related to the selected goal (implemental phase). The deliberative phase elicits a mindset that fosters an effective choice of goals by promoting open-mindedness and realism about available options, but hinders action initiation. On the other hand, the implemental phase corresponds to a mindset conducive to the effective implementation of a goal through immediate action, but often leads to closed-mindedness and unrealistically positive expectations about the chosen goal (Gollwitzer, Heckhausen, & Steller, 1990; Kruglanski et al., 2000; Thaler & Shefrin, 1981).

Regulation of "Oughts" and "Ideals"

Different individuals may have different orientations toward the same goal. One person - with a prevention orientation -might pursue a fitness goal primarily to prevent negative health problems, while another person - with a promotion orientation - might pursue the same goal in order to look and feel better. In addition to two phases in goal pursuit, research also distinguishes between two distinct self-regulatory orientations in pursuing a prevention and promotion. These orientations differ across individuals (chronic regulatory focus) and situations (momentary regulatory focus, Higgins, 1997). A prevention focus emphasizes safety, responsibility, and security needs, and views goals as “oughts.” This self-regulatory focus leads to a vigilant strategy aimed at avoiding losses (the presence of negatives) and approaching nonlosses (the absence of negatives). On the other hand, a promotion focus views goals as “ideals” and emphasizes hopes, accomplishments, and advancement needs, which leads to the adoption of an eager strategy concerned with approaching gains (the presence of positives) and avoiding nongains (the absence of positives). Therefore, emphasizing potential losses will motivate individuals with a prevention focus, whereas emphasizing potential gains will motivate individuals with a promotion focus.

A Cybernetic Process of Self-Regulation

Self-regulation depends on feelings that arise from comparing actual progress to expected progress. During goal pursuit, an individual calculates the discrepancy between his or her current state (i.e., all goal-related action completed so far) and his or her desired end state, and then directs action toward closing that gap (Miller, Galanter, & Pribram, 1960; Powers, 1973). In this cybernetic process of self-regulation, a higher-than-expected rate of closing the discrepancy creates a signal in the form of positive feelings, which makes individuals “coast” or reduce their efforts on the focal goal and focus on other goals. By contrast, a lower-than-expected rate of closing the gap elicits negative feelings, which leads to greater effort investment on the focal goal (Carver & Scheier, 1998).

Highlighting One Goal or Balancing Between Goals

Completed goal actions can also influence self-regulation through the meanings people assign to these actions. Completed actions can signal commitment or progress with respect to the goal (see dynamics of self-regulation framework; Fishbach et al., 2009). Commitment results from the perceived value and attainability of a goal, whereas progress describes an individual’s perception of reducing the discrepancy between his or her current and desired states in goal pursuit (i.e., cybernetic process). When people interpret their previous actions as a sign of commitment to a goal, they tend to highlight the pursuit of that goal by prioritizing it and putting more effort into it. However, when people interpret their previous actions as a sign of progress, they tend to balance between this goal and other goals and put less effort into the focal goal. For example, when buying a product on sale signals to you that you are committed to saving, you will continue to behave in a financially responsible manner. However, when you take the same action as evidence of progress toward the saving goal, it might justify your desire to splurge on a subsequent purchase. Several factors can influence the meanings people assign to previous goal actions. For example, the more certain a person is about his or her commitment to a goal, the more likely the person is to infer progress rather than commitment from his or her actions (Koo & Fishbach, 2008).

Conflicting Goals and Self-Control

Immediate gratification has a way of interfering with the pursuit of more significant long-term goals. New shoes feel awfully good right now but don't do anything to get us closer to our financial savings target. In the pursuit of your ordinary and extraordinary goals (e.g., stay physically or financially healthy, land on Mars), you inevitably come across other goals (e.g., live a little, or a lot) that might get in the way of your lofty ambitions. In such situations, you must exercise self-control to stay on course. Self-control is the capacity to control impulses, emotions, desires, and actions in order to resist a temptation (e.g., going on a shopping spree) and protect a valued goal (e.g., stay financially sound). As such, self-control is self-regulation in contexts involving a clear trade-off between long-term interests (e.g., health, financial goals) and some form of immediate gratification (Fishbach & Converse, 2010; Rachlin, 2000; Read, Loewenstein, & Rabin, 1999; Thaler & Shefrin, 1981). For example, whereas reading each page of a textbook requires self-regulation, doing so while resisting the tempting sounds of friends socializing in the next room requires self-control. Self-control is both a personal characteristic that varies across individuals and a resource that diminishes after it is utilized within the individual.

Self-Control as an Innate Ability

Mischel, Shoda, and Rodriguez (1989) identified enduring individual differences in self-control and found that this chronic capacity to postpone immediate gratification for the sake of future interests leads to greater cognitive and social competence over the course of a lifetime. In a series of lab experiments, preschoolers (4-year-olds) chose between getting a smaller treat available now in front of them (e.g., one marshmallow) or waiting as long as 15 minutes to get a better one (e.g., two marshmallows). Some children were better able to exercise self-control than others, by resisting the temptation to take the available treat and waiting for the better treat. Ten years later, these researchers found that children who were able to wait longer in the experiment tended to perform better academically and socially, and they seemed to also have better psychological coping skills as adolescents.

Self-Control as a Limited Resource

Willpower is limited. Trying to resist temptation now takes energy and may leave you feeling like it is harder to be disciplined later. Beyond personal characteristics, the ability to exercise self-control can fluctuate from one context to the next. In particular, previous exercise of self-control drains individuals of the limited physiological and psychological resources required to continue the pursuit of a goal. Ego-depletion refers to the exhaustion of such resources following the completion of effortful self-control tasks.  The effortful self-control tasks reduce individuals’ capacity to exert more self-control subsequently within the same domain or within a different goal context (Baumeister, Bratslavsky, Muraven, & Tice, 1998; Vohs & Heatherton, 2000). In the study by Baumeister et al. (1998), research participants became depleted after forcing themselves to eat radishes instead of tempting chocolates. They were subsequently less persistent at an unsolvable puzzle task than other participants who had not had to resist tempting treats by exerting self-control.

A Prerequisite to Self-Control: Identification

Although many factors, such as resources and personal characteristics, contribute to the successful exercise of self-control, identifying the self-control conflict inherent to a particular situation is an important—and often overlooked—prerequisite. Specifically, the successful pursuit of a goal in the face of temptation requires that an individual first identifies that he or she is having impulses that need to be controlled. However, individuals often fail to identify self-control conflicts because many everyday temptations seem to have very minimal negative consequences: One bowl of ice cream is unlikely to destroy a person’s health, but what about 200 bowls of ice cream over the course of a few months?

People are more likely to identify a self-control conflict and exercise self-control when they think of a choice as part of a broader pattern of repeated behavior rather than as one isolated choice. Indeed, when considering broader decision patterns, consistent temptations become more problematic for long-term interests (Rachlin, 2000; Read, Loewenstein, & Kalyanaraman, 1999). Moreover, conflict identification is more likely if people see their current choices as similar to their future choices.

Self-Control Processes: Counteracting Temptation

The protection of a valued goal involves several cognitive and behavioral strategies ultimately aimed at “counteracting” the pull of temptations and pushing oneself toward goal-related alternatives (Fishbach & Trope, 2007). One such cognitive process involves decreasing the value of temptations while increasing the value of goal-consistent objects or actions. For example, health-conscious individuals might evaluate a sugary treat as less appealing than a fruit in order to direct their choice toward the latter. Other behavioral strategies include precommitment to pursue goals and forgo temptation (e.g., leaving one’s credit card at home before going to the mall), establishing rewards for goals and penalties for temptations, or physically approaching goals and distancing the self from temptations (e.g., pushing away a dessert plate). These self-control processes benefit individuals’ long-term interest consciously or without conscious awareness. Thus, at times, individuals automatically activate goal-related thoughts in response to temptation and inhibit temptation-related thoughts in the presence of goal cues (Fishbach, Friedman, & Kruglanski, 2003).

Conclusion

In this textbook section, we adopted a social-cognitive approach to review some of the main theories and findings on goals and motivation. We described the principles of goal priming and how goals influence perceptions, feelings, and actions. We then summarized the principles of self-regulation, including phases, orientations, and fluctuations in the course of goal pursuit. Finally, we discussed key research on self-control, including the antecedents and processes involved in overcoming temptation.

Textbook 8.2: Drive States

Drive States

Overview

Drive States are affective experiences that motivate organisms to obtain goals beneficial to survival and reproduction. This section will explore various drive states and their underlying neurobiology to address the various factors influencing the development, expression, and consequence of drive states. Natural drive states, such as hunger and sexual arousal, will be discussed. Additional drive states, such as thirst, fear, and drug craving will also be presented. Lastly, consequences of mismatched drive states that influence real-world dilemmas, such as obesity, unrestricted sexual activity, and drug addiction will be highlighted.

Introduction

What is the longest you have gone without eating? A couple of hours? An entire day? How did it feel? Humans rely critically on food for nutrition and energy, and the absence of food can create drastic changes not only in physical appearance, but in thoughts and behaviors. If you fasted for a day, you probably noticed how hunger can take over your mind: Direct your attention to the foods that you could be eating (a cheesy slice of pizza, or perhaps some sweet and cold ice cream), and motivate you to obtain and consume these foods. Once you have eaten and your hunger has been satisfied, your thoughts and behaviors return to normal.

Defining and Recognizing Drive States

Hunger is among our most basic motivators. Hunger is a drive state, which is an affective experience that motivates organisms to fulfill goals that are generally beneficial to their survival and reproduction. Like other drive states, such as thirst or sexual arousal, hunger has a profound impact on the functioning of the mind. It affects psychological processes, such as perception, attention, emotion, and motivation, and influences the behaviors that these processes generate.

Key Properties of Drive States

Drive states differ from other affective or emotional states in terms of the biological functions they accomplish. Whereas affective states serve to motivate approach or avoidance behaviors (Zajonc, 1998), drive states are unique in generating behaviors that result in specific benefits for the body. For example, hunger directs individuals to eat foods that increase blood sugar levels in the body, while thirst causes individuals to drink fluids that increase water levels in the body.

Different drive states have different triggers. Most drive states respond to both internal and external cues, but the mix of internal and external, and the specific cues, differ between drives. Hunger, for example, depends on internal, visceral signals as well as sensory signals, such as the sight or smell of tasty food. Different drive states also result in different cognitive and feeling states and are associated with different behaviors. Despite these differences, there are a number of properties common to all drive states.

Commonalities Across Drive States

Homeostasis

Humans, like all organisms, need to maintain a stable state in their various physiological systems. For example, the excessive loss of body water results in dehydration, a dangerous and potentially fatal state, but too much water can be damaging as well: A moderate and stable level of body fluid is ideal. The tendency of an organism to maintain this stability across all the different physiological systems in the body is called homeostasis. Homeostasis consists of two main ingredients. First, the state of the system being regulated must be monitored and compared to an ideal level, or a set point. Second, mechanisms for moving the system back to this set point are needed to restore homeostasis when deviations from it are detected.

Many homeostatic mechanisms, such as blood circulation and immune responses, are automatic and do not involve conscious thought. Others, however, involve deliberate action. Most drive states motivate action to restore homeostasis using both a “carrot and a stick.” The stick is the bad feeling, such as hunger, thirst, or the misery of cold or heat that occurs when one departs from the set point. The carrot is the pleasure derived from any activity that moves the system back toward the set point. For example, when body temperature declines below the set point, any activity that helps to restore homeostasis, such as putting one’s hand in warm water, feels pleasurable, and likewise, when the body temperature is above the set point, anything that cools it feels pleasurable.

Narrowing of Attention

Narrowing of attention refers to directing attention towards elements, activities, and forms of consumption that satisfy the biological need associated with the drive. As drive states intensify, the attention narrows and directs itself towards detecting and satisfying the drive state. Hunger, for example, draws attention toward food. Outcomes and objects that are not related to satisfying hunger lose their value (Easterbrook, 1959). Indeed, at a sufficient level of intensity, individuals will sacrifice almost any quantity of goods that do not address the need signaled by the drive state. For example, people addicted to cocaine, according to Gawin (1991), reported that “virtually all thoughts are focused on cocaine during binges; nourishment, sleep, money, loved ones, responsibility, and survival lose all significance” (p. 1581).

Drive states also produce a second form of attention narrowing: a collapsing of time-perspective toward the present. While this form of attention-narrowing is particularly pronounced for the outcomes and behaviors directly related to the biological function being served by the drive state at hand, it applies to the general concern for the future as well. Ariely and Loewenstein (2006), for example, investigated the impact of sexual arousal on the thoughts and behaviors of a sample of male undergraduates. These undergraduates were lent laptop computers that they could bring back to their private residences, where they answered a series of questions both in normal states and in states of high sexual arousal. Ariely and Loewenstein found that being sexually aroused made people extremely impatient for both sexual outcomes and for outcomes in other domains, such as those involving money. In another study, Giordano et al. (2002) found that people addicted to heroin were more impatient with respect to heroin when they were craving heroin than when they were not. More surprisingly, they were also more impatient toward money (they valued money less) when they were actively craving heroin. A third form of attention-narrowing involves thoughts and outcomes related to the self versus others. Intense drive states tend to narrow one’s focus inwardly and to undermine altruism. People who are hungry, in pain, or craving drugs tend to be self-focused. Indeed, popular interrogation methods involve depriving individuals of sleep, food, or water, so as to trigger intense drive states that lead the subject of the interrogation to divulge information that may betray comrades, friends, and family (Biderman, 1960).

Two Illustrative Drive States: Hunger and Sexual Arousal

In general, drive states are developed when there is a physiological imbalance and function to detect associated stimuli and motivate the necessary behavior to obtain the goal and restore homeostasis. These processes are manners by which drive states function at a biological level, relate to other affective and motivational mechanisms, and impact cognition and behavior. Despite serving the same broader goals, different drive states are often remarkably different in terms of their specific properties. To understand some of these specific properties, two different drive states (hunger and sexual arousal) are discussed, focusing on the neurobiological, cognitive, behavioral, and functional differences within these distinct drive states.

Hunger

External cues, like the sight and smell of food, can ignite feelings of hunger. Hunger is a paradigmatic (i.e. ideal) drive state that results in thoughts and behaviors related to the consumption of food. Hunger is generally triggered by low glucose levels in the blood (Rolls, 2000), and behaviors resulting from hunger aim to restore homeostasis regarding glucose and its presence in the body. Various other internal and external cues can also cause hunger. For example, the chemical composition of the food from the stomach serves as an internal cue for the body to initiate the search for food (Greenberg, Smith, & Gibbs, 1990). External cues include the time of day, estimated time until the next feeding (hunger increases immediately prior to food consumption), and the sight, smell, taste, and even touch of food and food-related stimuli. Note that while hunger is a generic feeling, it has nuances that can produce the eating of specific foods that correct for nutritional imbalances.

The hypothalamus plays a very important role in eating behavior. It is responsible for synthesizing and secreting various hormones. The lateral hypothalamus (LH) is concerned largely with hunger. Lesions of the LH can eliminate all eating to the point where animals will starve to death unless kept alive by force feeding (Anand & Brobeck, 1951). Activation of the LH cannot only increase the desirability of food but can also reduce the desirability of nonfood-related items. Brendl, Markman, and Messner (2003), for example, found that participants who were given a handful of popcorn to trigger hunger not only had higher ratings of food products, but also had lower ratings of nonfood products, compared with participants whose appetites were not similarly primed. Additionally, artificially stimulating the LH, using electrical currents, can generate eating behavior if food is available (Andersson, 1951).

An analogous process, satiation, relates to the decline of hunger and the eventual termination of eating behavior. In fact, hunger and satiation are two distinct processes, controlled by different circuits in the brain and triggered by different cues. Distinct from the LH, which plays an important role in hunger, the ventromedial hypothalamus (VMH) plays an important role in satiety. While lesions of the VMH can make an animal overeat to the point of obesity, the relationship between the LH and the VMH is quite complicated. Rats with VMH lesions can be quite finicky about their food (Teitelbaum, 1955).

Other brain areas, besides the LH and VMH, also play important roles in eating behavior. The sensory cortices (visual, olfactory, and taste), for example, are important in identifying food items. These areas provide informational value and not hedonic evaluations. While many of their functions are roughly stable across different psychological states, other functions, such as the detection of food-related stimuli, are enhanced when the organism is in a hungry drive state. Therefore, the drive state detects a physiological imbalance and triggers sensory cortices to narrow, direct, and focus attention on stimuli associated with the drive state.

After identifying a food item, the brain also needs to determine its reward value, which affects the organism’s motivation to consume the food. The reward value ascribed to a particular item is, not surprisingly, sensitive to the level of hunger experienced by the organism. Neurons in the areas where reward values are processed, such as the orbitofrontal cortex, fire more rapidly at the sight or taste of food when the organism is hungry relative to if it is satiated.

Sexual Arousal

A second drive state, especially critical to reproduction, is sexual arousal. Sexual arousal results in thoughts and behaviors related to sexual activity. As with hunger, it is generated by a large range of internal and external mechanisms that are triggered either after the extended absence of sexual activity or by the immediate presence and possibility of sexual activity (or by cues commonly associated with such possibilities). Unlike hunger, however, these mechanisms can differ substantially between males and females, suggesting important sex-dependent evolutionary differences in the biological functions that sexual arousal serves.

Sexual arousal and pleasure in males, for example, is strongly related to the preoptic area, a region in the anterior hypothalamus. If the preoptic area is damaged, male sexual behavior is severely impaired. Interestingly, damage to the preoptic area does not affect certain types of sexual motivations. For example, rats that have had prior sexual experiences will still seek out sexual partners after their preoptic area is lesioned. However, once having secured a sexual partner, rats with lesioned preoptic areas will show no further inclination to actually initiate sex.

For female behavior, the ventromedial hypothalamus (VMH) plays a similar role. Neurons in the VMH determine the excretion of estradiol, an estrogen hormone that regulates sexual receptivity. In many mammals, these neurons send impulses to the periaqueductal gray, a region in the midbrain responsible for defensive behaviors (such as freezing immobility, running, increases in blood pressure, and so on) and other motor responses. During sexual arousal, these defensive responses are weakened and lordosis behavior, a physical sexual posture that serves as an invitation to mate, is initiated (Kow and Pfaff, 1998).

In addition to distinct sex-dependent neurobiological and functional differences in sexual arousal, sex-dependent differences in neural networks exist, providing clues about biological roles played by sexual arousal and sexual activity. For example, in rats, areas of the brain important for male sexuality overlap with areas associated with aggression. In contrast, areas important for female sexuality overlap extensively with those associated with nurturance (Panksepp, 2004). Aside from sex-dependent differences in the neurobiological substrates of sexual arousal, the septal nuclei appears to be involved in sexual pleasure, regardless of being male or female. The septal nuclei is a neuroanatomical area consisting of shared connections with other brain structures, such as the amygdala, hippocampus, ventral tegmental area, nucleus accumbens septi, preoptic area, and others involved in limbic system function (Swanson and Cowan, 1979). The septal nuclei shows considerable activity, in terms of rhythmic spiking, during sexual orgasm. In humans, placing a small amount of acetylcholine to this region, or stimulating it electrically, has been reported to produce a feeling of imminent orgasm (Heath, 1964). Animal models of reward and reinforcement show reinforced self-stimulating behavior in neuroanatomical regions exhibiting shared connections with the septal nuclei (Olds and Milner, 1954).

Additional Drive States

There are many drive states, besides hunger and sexual arousal, which affect humans on a daily basis. Fear, thirst, exhaustion, exploratory and maternal drives, and drug cravings are all drive states that have been studied by researchers (see e.g., Buck, 1999; Van Boven & Loewenstein, 2003). While these drive states share certain properties, each also has unique features that allows it to effectively fulfill its evolutionary functions.

One key difference between drive states is the extent to which they are triggered by internal as opposed to external stimuli. Thirst, for example, is induced both by decreased fluid levels and an increased concentration of salt in the body. Fear, on the other hand, is induced by perceived threats in the external environment. Drug cravings are triggered both by internal homeostatic mechanisms and by external visual, olfactory, and contextual cues. Other drive states, such as those pertaining to maternity, are triggered by specific events in the organism’s life. Differences such as these make the study of drive states a scientifically interesting and important endeavor. Drive states are rich in their diversity, and many questions involving their neurocognitive underpinnings, environmental determinants, and behavioral effects, have yet to be answered.

Considerations

Real-world consequences of drive states is an important topic of consideration. Hunger, sexual arousal, and other psychological drive states stem from neurobiological and physiological mechanisms, which have evolved gradually over millions of years. We share these drive states not only with our human ancestors but with animals, such as monkeys, dogs, and rats. It is not surprising then that these drive states, at times, lead us to behave in ways that are ill-suited to our modern lives. Consider, for example, the obesity epidemic that is affecting countries around the world. Like other diseases of affluence, obesity is a product of drive states that are too easily fulfilled: homeostatic mechanisms that worked well when food was scarce backfire when a meal rich in fat and sugar is readily available. Unrestricted sexual arousal can have a similarly perverse effect on our well-being. It not an overstatement to say that many problems of the 21st century, from school massacres to obesity to drug addiction, are influenced by the mismatch between our drive states and our uniquely modern ability to fulfill them at a moment’s notice.

Conclusion

Drive states are evolved motivational mechanisms designed to ensure that organisms take self-beneficial actions. Key properties of drive states, such as homeostasis and the narrowing of attention, were reviewed. In addition, the neurobiological substrates of two important drive states, hunger and sexual drive, were presented. In addition, sex-dependent differences in neuroanatomical regions recruited to motivate drive states were highlighted. Lastly, special consideration of additional drive states and the consequences of mismatched drive states, leading to inappropriate behaviors or lifestyles, were also addressed.

Textbook 8.3: Culture and Emotion

Culture and Emotion

Overview

Cultural studies are scientific investigations that are conducted to better understand the commonalities and the differences observed in a specific measure (i.e. emotion) across different cultures (i.e. Western and East Asian). This section will take a social psychological approach to define and address the factors mediating cross-cultural differences in how emotions are defined, expressed, and valued. Important considerations in how the culture-based self is developed, valued, and rated will be reviewed.

Introduction

Imagine that you are traveling in a country you have never visited before. Everything seems different: the sights, the smells, and the sounds. People are speaking a language you do not understand and wearing clothes that are different from yours. However, they greet you with a smile, and you sense that despite the differences that you observe, deep down inside, the people have the same feelings you do.

When making new friends from diverse cultures, we may not have a common language, but we share common emotions. To what degree do we actually experience the same emotions and feelings across cultures? While most scholars agree that members of different cultures may vary in the foods they eat, the languages they speak, and the holidays they celebrate, scholars disagree about the extent to which culture shapes people’s emotions and feelings, including what people feel, what they express, and what they do during an emotional event.

Understanding how culture shapes people’s emotional lives and what impact emotion has on psychological health and well-being in different cultures will not only advance the study of human behavior, but will also benefit multicultural societies. In order to communicate and function effectively with people from other cultures, people must understand the ways in which their cultural ideas and practices shape their emotions.

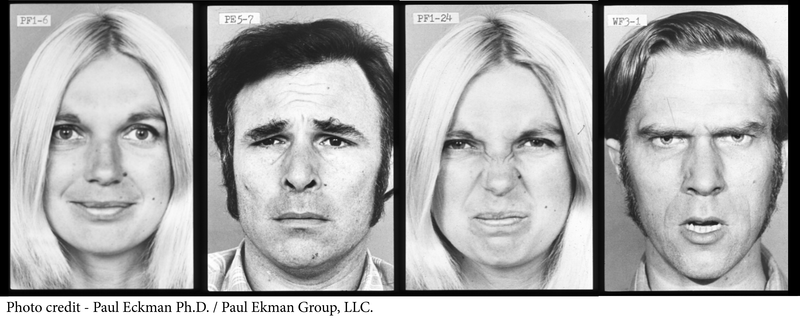
The Cross-Cultural Approach to Defining Emotion

The cross-cultural approach to defining emotion dates back to the 1950s in which social psychologists tended to fall into one of the two following schools of thoughts: the Universalist Camp or the Social Constructivist Camp. Differing perspectives in how emotions were developed and whether or not they are preserved across different cultures contributed to the Universalist-Social Constructivist debate.

The Universalist Camp, however, claimed that despite a common evolutionary heritage, humans evolved to adapt to their environments, and because human environments vary so widely, people’s emotions are also malleable and culturally variable. For instance, Lutz (1988) argued that many Western views of emotion assume that emotions are “singular events situated within individuals,” whereas people from Ifaluk, a small island near Micronesia, view emotions as “exchanges between individuals” (p. 212). Social constructivists argued that because cultural ideas and practices are all encompassing, people are often unaware of how their feelings are shaped by their cultures, and therefore emotions can feel automatic, natural, physiological, and instinctual, and yet still be primarily culturally shaped.

In the 1970s, Ekman conducted one of the first scientific studies attempting to address the Universalist-Social Constructivist debate. Ekman and Friesen devised a system to measure people’s facial muscle activity, called the Facial Action Coding System (FACS; Ekman & Friesen, 1978). Using FACS, Ekman and Friesen analyzed people’s facial expressions when they were emotional, and identified specific facial muscle movements that were associated with specific emotions (e.g., happiness, anger, sadness, fear, disgust). Ekman and Friesen then took photos of people posing these different emotional facial expressions. With the help of their colleagues at different universities across the world, Ekman and Friesen showed these pictures to members of vastly different cultures, gave them a list of emotion words (translated into the relevant languages), and asked them to match the emotional facial expressions in the photos with one of the emotion words on the list (Ekman & Friesen, 1971; Ekman et al., 1987).

**Facial Action Coding System (FACS)**



**Facial expressions associated with happiness, sadness, disgust, and anger based on the Facial Action Coding System.**

Findings showed that across cultures, participants “recognized” the emotional facial expressions by matching them with the “correct” emotion words at levels greater than chance, leading Ekman and his colleagues to conclude that emotional facial expressions are recognized universally. At the same time, they found considerable variability across cultures in recognition rates. For instance, whereas 95% of U.S. participants associated a smile with “happiness,” only 69% of Sumatran participants did; similarly, 86% of U.S. participants associated wrinkling of the nose with “disgust,” but only 60% of Japanese people did (Ekman et al., 1987). Ekman and colleagues interpreted this variation as demonstrating cultural differences in “display rules,” or rules about what emotions are appropriate to show in a given situation (Ekman, 1972). Indeed, since this initial work, Matsumoto and his colleagues have demonstrated cultural-wide differences in display rules (Safdar et al., 2009).

Findings from Ekman and colleagues and thereafter suggest both cultural similarities and differences in the recognition of emotional facial expressions (although see Russell, 1994, for criticism of this work). Recent research continues to support cultural similarities in facial emotion recognition and differences in display rules. In addition, within the past 10 years, increasing research has demonstrated cultural differences in not only display rules, but also the degree to which people focus on the face (versus other aspects of the social context) (Masuda et al., 2008), and the degree to which people focus on different features of the face (Yuki, Maddux, & Matsuda, 2007) when perceiving people’s emotions. Therefore, since Ekman and Friesen’s work, current cross-cultural perspectives suggest there are fundamental similarities in emotion expression.

Cultural Differences in the Self and Emotion

Cross-cultural differences between North American (United States, Canada) and East Asian (China, Japan, and Korea) contexts are of primary focus in empirical investigations. The primary focus on North American and East Asian contexts are not only due to the obvious differences (history, geographic location, language and religion) but also because large-scale studies, since the 1980s, have revealed that North American and East Asian contexts differ in their values and attitudes, such as the prioritization of personal vs. group needs individualism vs. collectivism (Hofstede, 2001). North American contexts encourage its members to prioritize personal over group needs (to be “individualistic”), while East Asian contexts encourage its members to prioritize group over personal needs (to be “collectivistic”).

The Self

The development of the social self is a product of cultural values. Cultural psychologists Markus and Kitayama (1991) suggest that observed differences in individualistic and collectivist cultures translated into different models of the self. Specifically, they argued that in North American individualistic contexts, the dominant model of the self is an independent one. In East Asian collectivist contexts, the dominant model of the self is an interdependent one. Such views support observations of how individualists, such as many people in the U.S., enjoy feeling unique; whereas collectivists, such as many people living in Japan, do not want to stand out from the group.

Empirical evidence for cross-cultural differences in the social self stems from a classic study in which American and Japanese students were asked to complete the Twenty Statements Test (Cousins, 1989). Participants were asked to complete a questionnaire with the sentence stem, “I am \_\_\_\_\_\_” twenty times. American participants were more likely to complete the stem with psychological attributes describing the independent self (e.g., friendly, cheerful) while Japanese participants completed the sentence stem with social references to the interdependent self (e.g., a daughter, a student) (Cousins, 1989). These different models of the self are associated with cultural differences in how individualists and collectivists interact with others. An independent model of self (individualistic) teaches persons to express themselves and to influence others (i.e., change their environments to be consistent with their own beliefs and desires). In contrast, an interdependent model (collectivist) of self teaches persons to suppress their own beliefs and desires and to adjust to others (i.e., change their own beliefs and desires to fit in with their environments) (Heine, Lehman, Markus, & Kitayama, 1999; Morling, Kitayama, & Miyamoto, 2002; Weisz, Rothbaum, & Blackburn, 1984). Markus and Kitayama (1991) argued that these different models of self have important implications for how people in different contexts think, feel, and behave.

Emotions

Studies demonstrate cultural differences in the sense of self, and the sense of self is said to influence how people think, feel, and behave. Therefore, it is critical to review scientific research investigating the cultural differences in how emotions are expressed as a consequence of a culturally-developed sense of self.

Cross-cultural emotional research adopts methodologies from investigations examining emotional responding in general. Emotional responding tend to focus on three facets of the emotional response: physiology (e.g., how fast one’s heart beats), subjective experience (e.g., whether one feels intensely happy), and facial expressive behavior (e.g., whether one smiles). Although only a few studies have simultaneously measured these different aspects of emotional responding, those that do tend to observe more cultural similarities than differences in physiological responding. For instance, in one study, European American and Hmong American participants were asked to relive different emotional episodes in their lives (e.g., when they lost something or someone that they loved; when something good happened) (Tsai, Chentsova-Dutton, Freire-Bebeau, & Przymus, 2002). At the level of physiological arousal, there were no differences in how European Americans and Hmong Americans responded. At the level of facial expressive behavior, however, there were more differences. When reliving events that elicited happiness, pride, and love, European Americans smiled more frequently and more intensely than did their Hmong counterparts, even though they reported feeling happy, proud, and in love at similar levels of intensity. Similar patterns have emerged in studies comparing European Americans with Chinese Americans during different emotion-eliciting tasks (Tsai et al., 2002; Tsai, Levenson, & McCoy, 2006; Tsai, Levenson, & Carstensen, 2000). Thus, while the physiological aspects of emotional responding appear similar across cultures, the facial expressive aspects of emotional responding appear to differ across cultures.

These differences in facial expression during positive events are consistent with findings from cross-cultural studies of display rules, and stem from the models of self. In North American contexts that promote an independent self, individuals must express their emotions in order to influence others. In contrast, in East Asian contexts that promote an interdependent self, individuals must control and suppress their emotions in order to adjust to others.

Cultural Differences in Emotion Development and Expression

The independent and interdependent model of emotion regulation has direct influence on the development of the sense of self (independent and interdependent self, respectively). Such cultural influences impact the development of “high arousal positive” and “low arousal positive" states in early developmental time periods, with long-lasting impact on the perceived sense of self. These cultural differences between the “high arousal positive” and “low arousal positive” sense of self have been observed in young children between the ages of 3 and 5, college students, and adults between the ages of 60 and 80 (Tsai, Louie, Chen, & Uchida, 2007; Tsai, Sims, Thomas, & Fung, 2013), and are reflected in widely distributed cultural products. For instance, women’s magazines, children’s storybooks, company websites, and even social media profiles in the American-Individualistic context emphasize, value, and promote more open excited smiles (à la Julia Roberts), with emotion-based behaviors associated with “high arousal positive” states. In contrast, fewer closed calm smiles (à la Buddha) in Chinese-Collectivist cultural products were observed (Chim, Moon, Ang, Tsai, 2013; Tsai, 2007; Tsai, Louie, et al., 2007) and are associated with “low arousal positive” states. Findings support additional research suggesting that people in North American contexts desire to feel emotions associated with “high arousal positive” states (excited, enthusiastic, energetic) more than people in East Asian contexts, who desire to feel emotions associated with “low arousal positive” states (calm and peaceful) (Tsai, Knutson, & Fung, 2006).

Again, these differences in ideal emotional expression are related to the independent and interdependent selves. Independent selves want to influence others. Influencing others requires action (or doing something), and action involves high arousal states. In contrast, interdependent selves want to adjust to others. Adjusting to others requires suspending action and attending to others, which both involve low arousal states. Thus, the more that individuals and cultures want to influence others (as they do in North American contexts), the more they value excitement, enthusiasm, and other high arousal positive states, and the more that individuals and cultures want to adjust to others (as they do in East Asian contexts), the more they value calm, peacefulness, and other low arousal positive states (Tsai, Miao, Seppala, Fung, & Yeung, 2007).

Cultural Differences in Emotion-Based Cognition

Differences in the development and value of the self and its implications also extend to cross-cultural differences in how people think and then express their emotions. Recent studies suggest that culture influences whether people are likely to feel bad during good events. In North American contexts, people rarely feel bad after experiencing something good. However, a number of research teams have observed people in East Asian contexts are more likely to feel bad and good (or feel “mixed” emotions) during positive events (e.g., feel worried after winning an important competition) (e.g., Miyamoto, Uchida, & Ellsworth, 2010). Researchers interpret these findings to suggest that compared with North American contexts, East Asian contexts engage in more dialectical thinking (tolerate contradiction and change), enabling the interdependent self to think and appreciate simultaneous positive and negative feelings. In addition, whereas North American contexts value maximizing positive states and minimizing negative ones (to decrease discrepancies between the ideal and real self), East Asian contexts value a greater balance between positive and negative states, permitting a more holistic interdependent sense of self (Sims, Tsai, Wang, Fung, & Zhang, 2013).

Cultural Differences in Well-Being and Emotion Dysregulation

Since ideal affect (affect means emotion) functions as a guide for behavior and as a way of evaluating one’s emotional states, cultural differences in ideal affect can result in different emotional lives. For example, people engage in activities (e.g., choose recreational activities, listen to music) that are consistent with their ideal affect, and therefore, cultural differences in leisure activities (e.g., whether people prefer to skydive or relax on a beach) may be due to cultural differences in ideal affect (Tsai, 2007). In addition, people base their conceptions of well-being and happiness on their ideal affect. For example, European Americans are more likely to define well-being in terms of feeling excited and other high arousal positive states, whereas Hong Kong Chinese are more likely to define well-being in terms of feeling calm and other low arousal positive states. Indeed, among European Americans, the less people are able to experience the high arousal positive states they value, the more depressed they are, whereas among Hong Kong Chinese, the less people are able to experience the low arousal positive states they value, the more depressed they feel (Tsai, Knutson, & Fung, 2006).

In addition to ideal affect, research has also shown a cross-cultural difference in the relationship between self-esteem and life satisfaction. For instance, self-esteem is more highly correlated with life satisfaction in individualistic cultures than in collectivist cultures. Increased self-esteem and happiness may stem from “high arousal positive” states in individualistic cultures, emphasizing personal gains and uniqueness. While, increased self-esteem and happiness in collectivist cultures may be secondary to “low arousal positive” states, emphasizing group membership and gains and conformity. Deviance from the culturally-based developed sense of self increases risk for decreased self-esteem and depression. However, research suggests that happiness and self-esteem are influenced by additional factors. Kwan and her colleagues found that while European Americans and Hong Kong Chinese samples both based their life satisfaction on how they felt about themselves (self-esteem) and how their relationships were doing (relationship harmony), European Americans based their life satisfaction more on self-esteem than relationship harmony, whereas Hong Kong Chinese based their life satisfaction equally on both (Kwan, Bond, & Singelis, 1997). Consistent with these findings, Oishi and colleagues found in a study of 39 nations that self-esteem was more strongly correlated with life satisfaction in more individualistic nations than in more collectivistic ones (Oishi, Diener, Lucas, & Suh, 1999). With respect to emotions, Suh and colleagues found that in individualistic cultures, people’s life satisfaction was based on their emotions more than on norms for life satisfaction (i.e., how satisfied with one’s life an ideal person should be), whereas in collectivistic cultures, people’s life satisfaction was based on both emotions and norms (Suh, Diener, Oishi, & Triandis, 1998). Similarly, Curhan and colleagues found that feeling negative is more strongly associated with poor mental and physical health in American than in Japanese contexts (Curhan et al., 2013). Again, these findings are consistent with cultural differences in models of the self. In North American contexts with independent selves, feelings about the self matter more, whereas in East Asian contexts with interdependent selves, feelings about the self matter as much as or even less than feelings about others.

Cross-cultural emotional research places an emphasis on cultural-based differences in how the self is developed, shaped by cultural context, valued, and its influence on emotion-regulated behavior observed across various contexts and situations. Due to such differences, research also emphasizes the impact of the culturally-developed sense of self and emotion dysregulation (psychological distress) across various cultures. For instance, if the cultural ideal in individualistic contexts is to express oneself, then suppressing emotions (not showing how one feels) should have negative consequences in the individualistic context. This is the assumption underlying hydraulic models of emotion, in which emotional suppression and repression are thought to impair psychological functioning (Freud, 1910). Indeed, significant empirical work has found suppression to have negative consequences for psychological well-being in North American contexts (Gross, 1998). However, Soto and colleagues find that the relationship between suppression and psychological well-being varies by culture. Whereas for European Americans, suppression is associated with higher levels of depression and lower levels of life satisfaction, for Hong Kong Chinese, for whom suppression is needed in order to adjust to others, suppression is not associated with depression or life satisfaction (Soto, Perez, Kim, Lee, & Minnick, 2011).

Research has also demonstrated cross-cultural differences in the emotional correlates of depression. North American individuals diagnosed with major depression show dampened or muted emotional responses (Bylsma, Morris, & Rottenberg, 2008). For instance, in response to sad and amusing film clips, depressed North Americans respond less intensely compared with their nondepressed counterparts. However, studies by Chentsova-Dutton and colleagues show that depressed East Asian Americans (i.e., people of East Asian descent who live in the United States) demonstrate similar or increased emotional responding compared with their nondepressed counterparts (Chentsova-Dutton et al., 2007; Chentsova-Dutton, Tsai, & Gotlib, 2010). In other words, in East Asian American samples, individuals diagnosed with major depression did not show dampened emotional responses. While muted responses (which resemble suppression, at least in appearance) are associated with depression in European American contexts, they are not associated with depression in East Asian contexts. Cross-cultural differences in emotional dysregulation (i.e. depression) and psychopathology (i.e. depression) may stem from differences in how cultures support the development, expression, and suppression of emotion in various contexts.

Communication

Given the central role that emotion plays in communication, understanding cultural similarities and differences in emotion is required to prevent unintended miscommunications and misunderstandings across different cultures within and outside a geographic location. Cross-cultural comparisons between North American and East Asian contexts have been of focus as most work in cultural psychology and culture and emotion has focused on these comparisons. However, a multitude of other cultural contexts in which differences in emotion likely exist. For example, although Western contexts are similar in many ways, specific Western contexts (e.g., American vs. German) also differ from each other in substantive ways related to emotion (Koopmann-Holm & Matsumoto, 2011). In addition, because more and more people are being raised with multiple cultures, more work is needed to examine how people negotiate and integrate these different cultures in their emotional lives (for examples, see De Leersnyder, Mesquita, & Kim, 2011; Perunovic, Heller, & Rafaeli, 2007).

Additional Perspectives

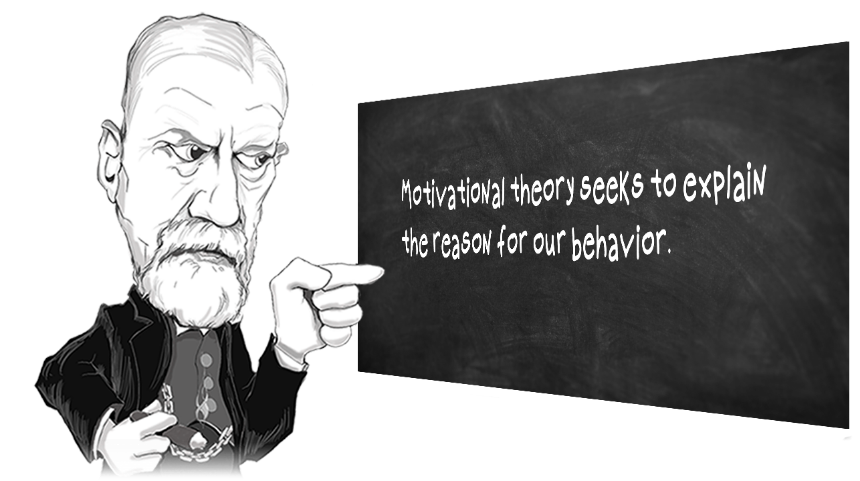
An alternative explanation for the cultural differences in emotion is that the group differences are due to temperamental factors; that is, biological predispositions to respond in a certain way. Epigenetic research investigating if the environment (i.e. culture) can modify the human genome would elucidate underlying mechanisms governing cultural differences in temperament and emotion development, expression, and regulation. For instance, the Affect Valuation Theory proposes that cultural factors shape how people ideally want to feel (their “ideal affect”) more than how they actually feel (their “actual affect”), whereas temperamental factors shape “actual affect” more than “ideal affect” (Tsai, 2007). To test this hypothesis, European American, Asian American, and Hong Kong Chinese participants completed measures of temperament (neuroticism, extraversion), actual affect (which have been strongly associated with temperament), ideal affect, and influence and adjustment cultural values. The differences in ideal affect emerged after controlling for differences in temperament and actual affect, suggesting that they were not due to temperamental factors (Tsai, Knutson, & Fung, 2006). Moreover, temperamental factors were more strongly associated with actual affect than ideal affect, and cultural factors were more strongly associated with ideal affect than actual affect.

Conclusion

Scholars would agree that emotions and other related feeling states are multifaceted, and that both cultural similarities and differences can be found for each facet of emotion. Thus, current research has focused on classifying emotions as products of universal or social construction, which may be influenced by underlying genetic determinants. Such research attempts to identify the specific ways in which these different aspects of emotional life are developed, shaped, expressed, and regulated similarly and differently across cultures.

Module 8 Gray Area

The Gray Area: A Theoretical Approach to Motivation



Theories of motivation tend to focus on explaining (at least in theory) the “why” to our behavior. For instance, when we reach for a sweater when we are cold, drive theory explains that we reach for the sweater to reduce a physiological imbalance so our body temperature will return to homeostasis. However, how would motivational theory explain why people behave in a way to throw the body out of homeostasis?

Arousal Theory

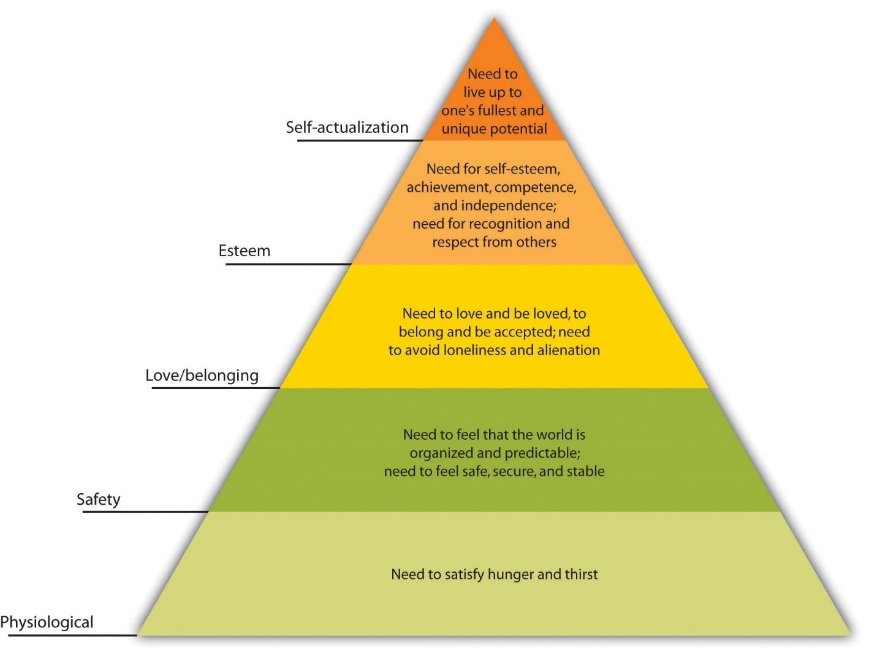
When people seek out highly arousing behavior, such as bungie jumping, skydiving, or cliff diving, they are not restoring homeostasis (equilibrium). Instead, they are seeking arousal. Arousal theory may better explain risk taking behaviors. According to arousal theory, we tend to have our “optimal level of arousal” where we have adequate eustress (good stress) to motivate behavior. If life circumstances, tasks, and requirements overwhelm us (and exceed our optimal level of arousal), we may feel overwhelmed and seek ways to relax, time manage, or set a priority list to reduce the feeling of being overloaded, overworked, and overwhelmed. If we are bored (and life circumstances are below our optimal level of arousal), we may seek excitement to get into our “zone.” If someone has high risk-taking desires, then perhaps the person has a higher optimal level of arousal. If someone avoids taking risks, then perhaps the person has a lower threshold for arousal. There is no set “ideal” optimal level of arousal for everyone; instead, your own self-awareness can provide insight into your own optimal window of arousal, the zone in which you have adequate eustress to take action.

Maslow’s Hierarchy of Needs

Abraham Maslow (1908–1970) conceptualized motivation from yet a different point-of-view. He saw motivation in terms of a pyramid-shaped hierarchy of needs. At the base of the pyramid are the lowest-level motivations, including hunger and thirst, safety, and belongingness. Maslow argued that only when people are able to meet the lower-level needs are they able to move on to achieve the higher-level needs of esteem, and eventually self-actualization. Our self-actualizing tendency refers to our motivation to develop our innate potential to the fullest possible extent. Maslow also highlighted the ways in which we approach the hierarchy. He noted that a growth orientation to the hierarchy provides a give-and take, meeting the needs of others, while our own needs are satisfied. People with a growth orientation tend to have peak experiences of closeness with others. On the contrary, people with a deficiency orientation tend to progress through the hierarchy with a self-oriented and at times materialistic perspective.

Maslow studied how successful people, including Albert Einstein, Abraham Lincoln, Martin Luther King, Jr., Helen Keller, and Mahatma Gandhi had been able to lead such successful and productive lives. Maslow (1970) believed that self-actualized people are creative, spontaneous, and loving of themselves and others. They tend to have a few deep friendships rather than many superficial ones, and are generally private. He felt that these individuals do not need to conform to the opinions of others because they are very confident and thus free to express unpopular opinions. Self-actualized people are also likely to have peak experiences, or transcendent moments of tranquility accompanied by a strong sense of connection with others. In other words, self-actualized people tend toward a growth orientation.

**Maslow’s Hierarchy of Needs**



Abraham Maslow conceptualized motivation in terms of a hierarchy of needs. The highest of these motivations is self-actualization.

Though Maslow tended to focus on productive rather than destructive personalities in his research, his humanistic perspective to motivation optimistically highlights the way we have universal base needs (physiological, safety, and love/belonging) as well as diverse higher-order needs (such as esteem and self-actualization).