

---

# Motivation and Emotion

---

## I. THEORIES OF MOTIVATION

### A. INTRODUCTION

1. Motivation is the general term for the biological, emotional, cognitive, and social processes involved in starting, directing, and maintaining behavior.
2. Human behavior includes a wide range of motives and drives. No single comprehensive theory of motivation can explain the enormous variety of human behavior. As a result, psychologists have developed several theories of motivation.

### B. INSTINCT THEORY

1. Instincts are fixed action patterns that are not learned and occur in most members of a species.
2. Animals display a number of fixed action patterns including bird migrations, mating rituals, and dominance displays.
3. Inspired by Darwin's theory of evolution, early psychologists, led by William James, listed scores of human instincts including modesty, cleanliness, rivalry, and parental love.
4. Instinct theory soon fell out of favor as it became evident that it lacked the ability to fully explain human motivation. Today, psychologists taking the evolutionary perspective explore the influence of our evolutionary history on eating, the selection of mates, the expression of emotions, and other patterns of human behavior.

### C. DRIVE REDUCTION THEORY

1. The drive reduction theory replaced instinct theory during the 1930s.
2. The drive reduction theory is based on the biological concept of homeostasis. This key concept literally means “standing still.” According to the principle of homeostasis, the body seeks to maintain a stable internal state, such as constant internal temperature and fluid levels. For example, after completing a marathon, runners drink a large quantity of water to restore homeostasis in their fluid levels.
3. The body creates a state of tension, known as a “drive,” if any of its needs are unmet. For example, drive reduction theory states that a person will drink water as a result of a drive for satisfying thirst and eat food as a result of a drive for satisfying hunger.
4. The drive reduction theory is still used to explain motivated behaviors that have a clear biological basis. However, the drive reduction theory cannot account for many human behaviors. For example, buying the newest cell phone, contributing to a charity, and participating in an extreme sport cannot be explained by the satisfaction of a biological need.

### D. AROUSAL THEORY

1. According to arousal theory, humans (and other animals) are innately curious and seek out complexity and novelty.
2. The Yerkes-Dodson law states that an optimal level of psychological arousal helps performances. When arousal is too low, our minds wander and we become bored. When arousal is too high, we become too anxious and “freeze-up.” People are thus motivated to seek a moderate level of stimulation that is neither too easy nor too difficult.
3. For example, a youth soccer league proposes to implement a system in which games are played without keeping score. Removing scores may improve the performance of players who were too anxious. However, removing scores may cause highly competitive players to become bored, thus undermining their performance.

## E. MASLOW'S HIERARCHY OF NEEDS

1. The humanist psychologist Abraham Maslow created a hierarchy of needs that combines and prioritizes biological, psychological, and social needs.
2. Maslow identified a progression of five needs. According to Maslow, people begin with basic physiological and safety needs. Once these needs are met, the individual “moves up” to high-level needs culminating with self-actualization.
3. Maslow's hierarchy of needs are as follows:
  - ▶ *Physiological needs: food, water, warmth, and maintenance of homeostasis*
  - ▶ *Safety needs: security, safety, and avoidance of pain*
  - ▶ *Belonging needs: acceptance, affection, and friendship*
  - ▶ *Esteem needs: feelings of accomplishment, approval, and recognition*
  - ▶ *Self-actualization needs: fulfilling one's potential by being all that you can be*
4. Psychologists have criticized Maslow's model for its vague definition of self-actualization. In addition, it is possible for people living in poverty to nonetheless develop strong social ties and self-esteem.



*AP Psychology test writers have focused more attention on Maslow's hierarchy of needs than on instinct theory or drive reduction theory. You might use the initials PS BES as a mnemonic device to help you remember the sequence of Maslow's five needs. The "P" stands for Physiological, the "S" stands for Safety, the "B" stands for Belonging, the "E" stands for Esteem, and the "S" stands for Self-actualization.*

## II. HUNGER MOTIVATION

### A. THE BIOLOGICAL BASIS OF HUNGER

1. The hypothalamus is a part of the forebrain structure that regulates eating and drinking.

2. When stimulated, the lateral hypothalamus (or hunger center) causes an animal to eat. If this area is destroyed, an animal will starve to death.
3. When stimulated, the ventromedial hypothalamus (the satiety center) causes the animal to stop eating. If this area is destroyed, the animal will eat constantly and gain more and more weight.
4. Set-point theory states that humans and other animals have a natural or optimal body-fat level. Like a thermostat, the body defends this set-point weight by regulating feelings of hunger and body metabolism.

## B. OBESITY

1. Two-thirds of adult Americans are officially overweight, and about half of them are obese.
2. Obesity is not limited to adults. One in six Americans between the ages of 6 and 19 are overweight.
3. Obesity contributes to heart disease, diabetes, kidney failure, and many forms of cancer. About 300,000 adult deaths in the United States are directly attributable to obesity.
4. Factors involved in becoming overweight and obese:
  - ▶ *Most Americans live in an environment with abundant and easily obtainable high-fat, high-calorie foods. As a result, during the last 20 years average daily caloric intake has increased nearly 10 percent for men and 7 percent for women.*
  - ▶ *Many Americans lead a sedentary lifestyle. Nearly 4 out of 10 Americans report that they never exercise.*
  - ▶ *Lack of adequate sleep increases the production of the appetite-increasing hormone ghrelin while decreasing production of the appetite-suppressing hormone leptin.*
  - ▶ *Many people may be genetically predisposed to obesity. Studies reveal that people with a family history of obesity are two to three times more likely than people with no such history to become obese.*

## C. ANOREXIA NERVOSA

1. Anorexia nervosa is an eating disorder characterized by a severe loss of weight resulting from self-imposed starvation and an obsessive fear of obesity.

2. The vast majority of anorexics are women.
3. Many psychologists believe that pervasive cultural images of the “thin ideal” of physical beauty create a distorted body image and a need for physical perfection.

#### D. BULIMIA NERVOSA

1. Bulimia nervosa is an eating disorder involving binge eating followed by vomiting, excessive exercise, or the use of laxatives.
2. Bulimia is difficult to initially detect because of weight fluctuations within or just above the normal range.
3. Bulimia causes cardiac arrhythmias, severe damage to the throat, and serious digestive disorders.

### III. SOCIAL MOTIVATION

#### A. ACHIEVEMENT MOTIVATION

1. The drive to succeed, especially in competition with others
2. Research studies by David McClelland (1917–1998) and others show that individuals with a high need for achievement (nAch) typically seek out tasks that are moderately difficult.
3. Achievement motivation is learned early in life, typically from parents. Highly motivated people are willing to work long hours, overcome obstacles, and delay gratification to focus on a goal.
4. Students display achievement motivation when they take several practice tests to hone skills for the SAT and ACT. A student with a high level of achievement motivation who scores a 2200 on the SAT and a 33 on the ACT would probably take the test again to achieve an even higher score.
5. Achievement motivation takes different forms in individualistic and collectivistic cultures. In individualistic cultures such as the United States, achievement motivation emphasizes personal success. In contrast, in collectivistic cultures such as China, achievement motivation emphasizes promoting the status or well-being of the family and other relevant social groups.

## B. EXTRINSIC MOTIVATION

1. Based upon external rewards or threats of punishment
2. Students who work for grades, athletes who work for scholarships, and employees who work for bonuses are all motivated by external rewards. Athletes who work hard so they will not be benched are motivated by the threat of extrinsic punishment.
3. When extrinsic rewards and punishments are removed, behavior often falls to a lower level. For example, when seniors receive their letters of college acceptance they often study less and their grades drop. This phenomenon is popularly known as “senioritis!”

## C. INTRINSIC MOTIVATION

1. Based upon personal enjoyment of a task or activity.
2. Artists who paint for enjoyment, volunteers who donate time to community projects, and runners who strive to achieve their personal best time are all intrinsically motivated.

## D. OVERJUSTIFICATION

1. What happens when people are given extrinsic rewards for behavior that had been intrinsically motivated? Will the extrinsic reward encourage or discourage performance?
2. Research indicates that extrinsic motivation will displace a person’s internal motivation. This is called the overjustification effect.
3. The overjustification effect can sometimes be seen when a musician makes the transition from being an amateur to a professional recording artist. The musician who once played for the joy of making music now performs solely to please producers and make money. As the motivation changed from intrinsic to extrinsic, the performer shows decreased interest and views making music as a job.

### III. THE NEUROSCIENCE OF EMOTION

#### A. THE BRAIN

1. The limbic system comprises a group of brain structures involved in emotion, memory, and basic motivational drives such as hunger, thirst, and sex.
2. The amygdala is part of the limbic system. Several studies have shown that the amygdala plays a key role in emotional responses, especially fear.

#### B. THE AUTONOMIC NERVOUS SYSTEM

1. The sympathetic nervous system
  - ▶ A subdivision of the autonomic nervous system that arouses body responses.
  - ▶ When you are emotionally aroused, the sympathetic nervous system causes blood pressure to surge and breathing and heart rates to accelerate. A perceived threat will trigger a fight-or-flight response that includes a dry mouth, dilating pupils, and heavy perspiration.
2. The parasympathetic nervous system
  - ▶ A subdivision of the autonomic nervous system that calms body responses.
  - ▶ The parasympathetic nervous system works to calm the body and return it to a more relaxed state.
  - ▶ The parasympathetic nervous system restores homeostasis immediately after a fight-or-flight response.



It is very easy to confuse the functions of the sympathetic nervous system and the parasympathetic system. You might link the word “placid,” which begins with the letter “P” and means “calm,” to the Parasympathetic nervous system, which also begins with the letter “P” and functions to calm the body.

### C. POLYGRAPH TESTING

1. The polygraph measures such sympathetic and parasympathetic nervous system responses as heart rate, breathing rate, and galvanic skin response.
2. Autonomic responses change under stress. Contrary to popular belief, the polygraph does not literally measure lying. Instead, it records arousal patterns associated with anxiety and fear. The inference that a person failing a polygraph test has told a lie is based upon the assumption that lying produces arousal of the sympathetic nervous system.
3. It is very important to note that lying is only loosely related to anxiety and fear. Some people remain calm when lying while others become nervous when telling the truth while being questioned in a stressful situation. As a result, polygraph tests cannot infallibly distinguish between innocent and guilty people.

## IV. EMOTIONAL EXPRESSION

### A. FACIAL EXPRESSION AND EMOTIONS

1. Psychologist Paul Ekman (b. 1934) has conducted the most extensive research on the facial expression of basic emotions.
2. Ekman believes that the “facial language” for basic emotions is innate and thus universal. It is important to note that children who are born deaf and blind nonetheless exhibit facial expressions identical to those of other children.
3. Ekman and his fellow researchers argue that humans exhibit six basic emotions: happiness, sadness, fear, anger, surprise, and disgust. Each emotion is expressed by specific facial expressions. For example, a smile signals happiness on the faces of people across the world.

### B. DISPLAY RULES

1. Although facial expressions for basic emotions are universal, cultural display rules influence how and when emotional responses are displayed.

2. In a classic experiment, Ekman showed American and Japanese students films depicting grisly images of surgical procedures. When they watched the film alone, the students all grimaced with disgust at the gruesome scenes. When an official-looking scientist was present, the American students continued to show expressions of disgust. In contrast, the Japanese students masked their negative facial expressions of disgust with a smile. Ekman explained this finding by noting that the Japanese students were following an important display rule. In Japanese culture it is not appropriate to display negative emotions that offend an authority figure.

## V. THEORIES OF EMOTION

### A. INTRODUCTION—A CONTINUING DEBATE

1. Psychologists agree that emotions include physiological, cognitive, and behavioral components.
2. Psychologists, however, disagree on *how* we become emotional and *which* component of emotion received the most emphasis.

### B. THE JAMES-LANGE THEORY OF EMOTION

1. Named after William James (1842–1910) and Carl Lange (1834–1900), the James-Lange theory argues that emotions follow a three-part sequence:
  - ▶ *First, you perceive a stimulus. For example, you see a shadowy figure in your backyard.*
  - ▶ *Second, the stimulus triggers physiological arousal. When you see the shadowy figure, your heart rate jumps and you begin to tremble.*
  - ▶ *Third, you interpret the bodily changes as a specific emotion. In this example, you interpret your pounding heart and trembling as being afraid.*
2. In the James-Lange theory, arousal immediately precedes emotion. James succinctly expressed this sequence when he wrote: “We feel sorry because we cry, angry because we strike, afraid because we tremble.”

### C. THE SCHACHTER-SINGER TWO-FACTOR THEORY OF EMOTION

1. Psychologists Stanley Schachter (1922–1997) and Jerome Singer agreed with James’s view that physiological arousal is a key element in emotion.
2. However, Schachter and Singer point out that physiological arousal is similar for different emotions. In their two-factor theory, Schachter and Singer propose that our emotions depend on physical arousal and the cognitive labeling of that arousal. It is important to know that cognitive labeling is not part of the James-Lange theory.
3. The Schachter-Singer two-factor theory identifies the following sequence of steps:
  - ▶ *First, you perceive a stimulus. For example, you see a shadowy figure in your backyard.*
  - ▶ *Second, the stimulus triggers both physiological arousal and a cognitive label that makes the best sense of the arousal. In this example, your heart rate jumps and you begin to tremble. You make cognitive sense of the shadowy figure by thinking, “I feel afraid.”*
4. In the Schachter-Singer two-factor theory, emotion is the result of the interaction of physiological arousal and the cognitive label we use to explain our condition.



*The Schachter-Singer two-factor theory can be applied to a wide variety of everyday experiences. For example, think about how you would feel when you first introduce yourself to the members of a new school club. The members of the club are the stimulus. Your heart rate increases as you introduce yourself. You simultaneously make cognitive sense of this physiological response by thinking, “I’m anxious about meeting new people.”*

## VI. UNDERSTANDING STRESS

### A. KEY DEFINITIONS

1. Stress is an emotional response to demands that are perceived as threatening or exceeding a person's resources or ability to cope.
2. A stressor is a trigger that prompts a stressful reaction.

### B. CONFLICT AND STRESS

1. Conflict occurs when a person is forced to choose between two or more opposing goals or desires.
2. Approach-approach conflict
  - ▶ *Occurs when you are forced to choose between two or more desirable alternatives that both lead to positive results.*
  - ▶ *For example, you receive letters of acceptance from your top two colleges. Both colleges have academic and social advantages that make them equally attractive. Which college will you choose to attend? While stressful, an approach-approach conflict ultimately leads to a choice between two desirable options.*
3. Avoidance-avoidance conflict
  - ▶ *Occurs when you are forced to choose between two undesirable alternatives that will both lead to negative results.*
  - ▶ *For example, you are rejected by all of the colleges to which you applied. You must now choose between getting a job or joining the military. Both options will delay your career goals. Which option will you choose? Avoidance-avoidance conflicts are very stressful because both options are perceived as being undesirable.*
4. Approach-avoidance conflict
  - ▶ *Occurs when you are forced to choose an alternative that will have both desirable and undesirable results.*
  - ▶ *For example, you receive a letter of acceptance from your top college. You want to attend this college, but it is very expensive. Will you choose this college or one that is less expensive? Approach-avoidance conflicts are*

*very stressful because we experience both good and bad results regardless of what we decide to do.*

### C. HANS SELYE'S GENERAL ADAPTATION SYNDROME

1. Hans Selye (1907–1982) was a physiologist renowned for his study of stress. Selye identified three progressive stages of stress that collectively form what he called a general adaptation syndrome.
2. The alarm stage
  - ▶ *You confront a stress-producing event.*
  - ▶ *Your body responds to the stressor by mobilizing internal physical resources. For example, during the alarm stage your body produces adrenaline to bring about the fight-or-flight response.*
3. The resistance stage
  - ▶ *Although the intense arousal of the alarm stage diminishes, physiological arousal remains higher than normal.*
  - ▶ *Resources are gradually depleted since the body cannot indefinitely maintain a heightened state of arousal.*
  - ▶ *This stage can lead to diseases of adaptation, including ulcers and high blood pressure.*
4. The exhaustion stage
  - ▶ *Prolonged exposure to the stressor depletes the body's resources.*
  - ▶ *Exhaustion leads to physical disorders, vulnerability to illness, collapse, and even death.*