

Motivation, Emotion, and Stress

Motivation:

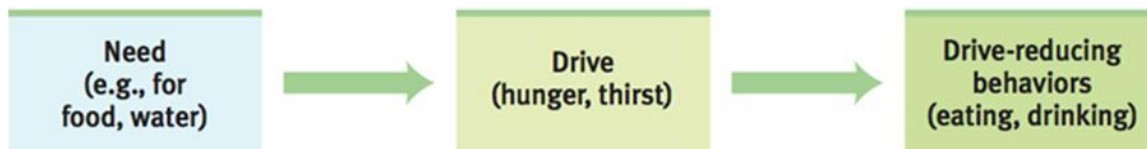
Motivation: a psychological process that directs and maintains behavior towards a goal.

Motive: needs or desires that energize behavior.

Instinct: complex, inherited behavior patterns characteristic of a species that is unlearned.

Imprinting: an attachment to the first moving thing seen or heard after birth (for birds).

Drive-reduction theory: the idea that a physiological need creates an aroused tension state (a drive) that motivates an organism to satisfy the need.



Homeostasis: a tendency to maintain a balanced or constant internal state; the regulation of any aspect of body chemistry, such as blood glucose, around a particular level.

Need: a necessity, especially a physiological.

Desire: something that is wanted, but not needed.

Primary drive: drives that are innate such as hunger, thirst, and sex.

Secondary drive: drives that are learned through conditioning such as working for money.

Arousal: the level of alertness, wakefulness, an activation caused by activity in the CNS.

Yerkes-Dodson Law: people perform best at a moderate level of arousal.

Sensation seeking: searching for a certain level of sympathetic nervous system of arousal.

Incentive theory: people are motivated by a desire to obtain external incentives.

1. **Incentive:** a positive or negative environment stimulus that motivates behavior.
2. **Primary incentives:** motivates behavior to satisfy a physiological need.
3. **Secondary incentive:** motivates behavior to satisfy a desire.

Cognitive theory: People are motivated as a result of their own thoughts, desires, goals, and expectations.

Intrinsic motivation: doing something because you generally like to do it.

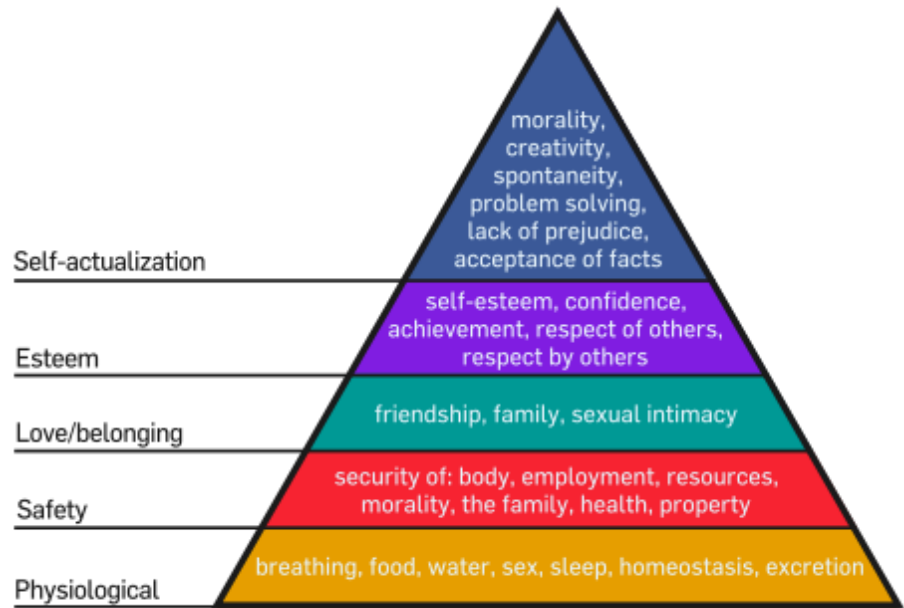
Extrinsic motivation: doing something because of a promise of a reward or a threat of punishment.

Overjustification effect: the effect of promising a reward for doing what one already likes to do and then losing interest in it.

Hierarchy of Needs: Maslow's pyramid of human needs, beginning at the base with physiological needs that must first be satisfied before higher-level safety needs and then psychological needs become active.

Achievement: the drive to succeed, especially when in competition.

Sociobiology: relates social behaviors to evolutionary biology.



Hunger Motivation:

Glucose: the form of sugar that circulates in the blood and provides the major source of energy for body tissues. When its level is low, we feel hunger.

Lateral hypothalamus (LH): the “on” button for eating. ***Remember: If it is lesioned, people will not feel hungry and they will become little (LH).**

Ventromedial hypothalamus (VMH): the “off” button for eating. ***Remember: If it is lesioned, people will not feel full and they will become very huge (VMH)**

Appetite hormone: controls the levels of glucose and the hunger of people.

Set point: the point at which an individual's “weight thermostat” is supposedly set. When the body falls below this weight, an increase in hunger and a lowered metabolic rate may act to restore the lost weight.

TABLE 12.1

THE APPETITE HORMONES

Insulin: Hormone secreted by pancreas; controls blood glucose.

Leptin: Protein secreted by fat cells; when abundant, causes brain to increase metabolism and decrease hunger.

Orexin: Hunger-triggering hormone secreted by hypothalamus.

Ghrelin: Hormone secreted by empty stomach; sends “I’m hungry” signals to the brain.

PYY: Digestive tract hormone; sends “I’m *not* hungry” signals to the brain.

Basil metabolic rate: the body's resting rate of energy expenditure.

Anorexia nervosa: an eating disorder in which a person (usually an adolescent female) diets and becomes significantly (15 percent or more) underweight, yet, still feeling fat, continues to starve.

Bulimia nervosa: an eating disorder characterized by episodes of overeating, usually high-calorie foods, followed by vomiting, laxative use, fasting, or excessive exercise.

Binge-eating disorder: significant binge-eating episodes, followed by distress, disgust, or guilt, but without the compensatory purging, fasting, or excessive exercise that marks bulimia nervosa.

Body Mass Index (BMI): the percentage of a person's body fat.

Obesity: a disorder characterized by being excessively overweight, usually considered to have a BMI of over 30%.

Sexual Motivation:

Sexual response cycle: the four stages of sexual responding described by Masters and Johnson – excitement, plateau, orgasm, and resolution.

Refractory period: a resting period after orgasm, during which a man cannot achieve another orgasm.

Puberty: the onset of sexual maturity.

Estrogen: sex hormone secreted in greater amount by females than males and contributing to female sex characteristics. In nonhuman female mammals, estrogen levels peak during ovulation, promoting sexual receptivity.

Testosterone: the most important of the male sex hormones. Both males and females have it, but the additional testosterone in males stimulates the growth of the male sex organs in the fetus and the development of the male sex characteristics during puberty.

Sexual orientation: sexual attraction toward members of either one's own sex (homosexual orientation), both sexes (bisexual), or the opposite sex (heterosexual orientation).

BIOLOGICAL CORRELATES OF SEXUAL ORIENTATION

On average (the evidence is strongest for males), various biological and behavioral traits of gays and lesbians fall between those of straight men and straight women. Tentative findings—some in need of replication—include these:

Brain differences

- Hypothalamic cell cluster is larger in straight men than in women and gay men; same difference is found in male sheep displaying other-sex versus same-sex attraction.
- Corpus callosum is larger in gay men than in women or straight men.

Genetic influences

- Shared sexual orientation is higher among identical twins than among fraternal twins.
- Sexual attraction in male fruit flies can be genetically manipulated.

Prenatal hormonal influences

- Altered prenatal hormone exposure may lead to homosexuality in humans and other animals.
- Men with several older brothers are more likely to be gay.

These brain differences and genetic and prenatal influences may contribute to observed gay-straight differences in

- spatial abilities.
- fingerprint ridge counts.
- auditory system.
- handedness.
- occupational preferences.
- relative finger lengths.
- gender nonconformity.
- age of male puberty.
- male body size.

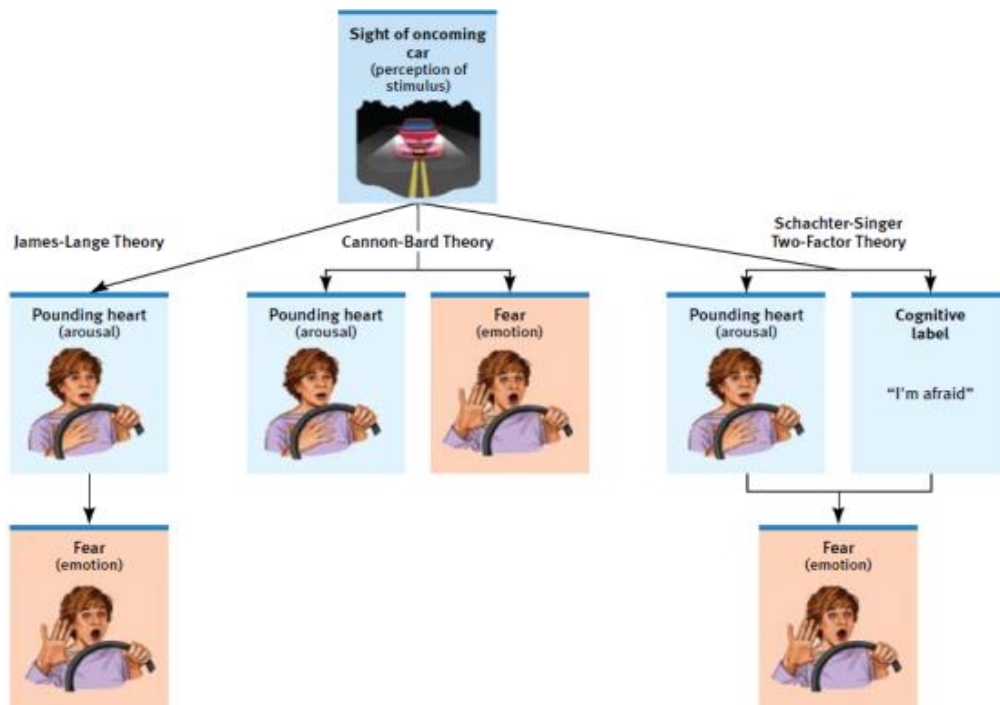
Emotion:

Emotion: a response of the whole organism, involving (1) physiological arousal, (2) expressive behaviors, and (3) conscious experience.

James-Lange theory: our experience of emotion is our awareness of our physiological responses to emotion-arousing stimuli.

Cannon-Bard theory (Thalamic Theory): an emotion-arousing stimulus simultaneously triggers (1) physiological responses and (2) the subjective experience of emotion.

Schachter-Singer theory (Schachter-Two Factor): to experience emotion one must (1) be physically aroused and (2) cognitively label the arousal.



Cognitive-Appraisal Theory: Our emotional experience depends on our interpretation of the situation we are in.

- 1. Primary appraisal:** appraise a situation of whether or not you want to do something based on the consequences.
- 2. Secondary appraisal:** deciding to do something based on the primary appraisal and your current emotion.

Valence: how pleasant something is.

Feel-Good, Do-Good Phenomenon: when we feel happy we are more willing to help others.

Well-being: self-perceived happiness or satisfaction with life. Used along with measures of objective well-being (for example, physical and economic indicators) to evaluate people's quality of life.

Tend and befriend: a behavior exhibited by some animals, including humans, when under threat. It refers to protection of offspring (tending) and seeking out the social group for mutual defense (befriending).

Adaptation-level phenomenon: our tendency to form judgments (of sounds, of lights, of income) relative to a neutral level defined by our prior experience.

Relative deprivation: the perception that we are worse off relative to those with whom we compare ourselves.

Behavioral medicine: an interdisciplinary field that integrates behavior and medical knowledge and applies that knowledge to health and disease.

Health Psychology: a subfield of psychology that provides psychology's contribution to behavioral medicine.

Facial feedback: the effect of facial expressions on experienced emotions, as when a facial expression of anger or happiness intensifies feelings of anger or happiness.

Catharsis: emotional release. The catharsis hypothesis maintains that "releasing" aggressive energy (through action or fantasy) relieves aggressive urges.

Polygraph (lie detector machine): a machine, commonly used in attempts to detect lies, that measure several of the physiological responses accompanying emotion (such as perspiration and cardiovascular and breathing changes).

Motivation and Emotion Key People:

Charles Darwin: believed in natural selection and survival of the fittest.

William McDougall: behavior is instinctual, such as aggression.

Sigmund Freud: personality is instinctual that stems from the unconscious.

Konrad Lorenz: studied the critical attachment period and imprinting in birds.

Clark Hull: drive reduction is a major cause of learning and behavior.

David McClelland: studied achievement motivation in which he said some people are more motivated by achievement than others.

Abraham Maslow: Humanist who developed the Hierarchy of Needs.

Cannon-Washburn: came up with the stomach contraction theory which states that we know we are hungry when our stomach contracts. In the notorious balloon study, Washburn trained himself to swallow a balloon, which was attached to a tube, and then the balloon was inflated inside of his stomach. When the balloon was inflated, he did not feel hungry. Later this theory was opposed by the fact that people whose stomach was removed still felt hungry.

Y.C. Tsang: removed rat stomachs, connected the esophagus to the small intestines, and the rats still felt hungry (and ate food).

Paul Ekman: conducted the most extensive research on the facial expressions of basic emotions, said there are 6 basic emotions and a universal “facial language”.

Carol Izard: isolated 10 emotions. Most of them are present in infancy, except for contempt, shame, and guilt.

Walter Cannon: proposed that the stress response (fight) was a fight-or-flight response marked by the outpouring of *epinephrine* and *norepinephrine* from the inner adrenal glands, increasing heart and respiration rates, mobilizing sugar and fat and dulling pain.

Thomas Holmes: developed the stress scale, the Social Readjustment Rating Scale (SRRS), of 43 stressful life events that can contribute to illness.

Alfred Kinsey: his sex studies in the 40s and 50s made the discussion of sex less taboo.