

## Ch. 10: Motivation and Emotion

compiled by Cetin

### I. Theories of Motivation

- a. Motivation involves goal-directed behavior
- b. Drive theories
  1. Drive: an internal state of tension that motivates an organism to engage in activities that should reduce this tension
  2. Drive Theories are derived from the concept of homeostasis, a state of physiological equilibrium or stability
  3. A drive progressively builds up within a person
  4. Then the person is motivated to pursue actions that will lead to drive reduction
  5. Drive theories cannot explain
    - A. Homeostasis does not apply to some human motivations (achievement, social motivations)
    - B. Motivation may exist without drive arousal
- c. Incentive Theories
  1. Propose that external stimuli regulate motivational states
  2. An incentive is an external goal that has the capacity to motivate behavior
  3. Source of motivation lies in the environment
  4. Expectancy-value models are one type of incentive model
    - A. Expectancy about one's chances of attaining the incentive
    - B. Value of the desired incentive
- d. Evolutionary Theories
  1. Motives are products of evolution by natural selection
  2. Motives had adaptive value of the course of human history
- e. Humans display many types of motivations
  1. Ex. of biological motives
    - A. Hunger, thirst, and sex
  2. Ex. of social motives
    - A. Achievement, affiliation, and autonomy

### II. The Motivation of Hunger and Eating

- a. Brain regulating hunger
  1. Lesion later hypothalamus (LH): animal shows little or no interest in eating
  2. Lesion ventromedial nucleus of the hypothalamus (VMH): animals eats excessively and gains weight
  3. Paraventricular nucleus of the hypothalamus: plays a major role in the regulation of hunger
  4. Hunger is regulated by the complex activity of neural circuits that pass through these hypothalamic brain centers
- b. Blood glucose level contributes to the regulation of hunger
  1. Glucose is a simple sugar that is an important source of energy for cells
  2. A decrease in blood level can increase hunger. An increase can decrease hunger
  3. Glucostatic theory proposes that brain neurons called glucostats monitor blood glucose levels and help regulate hunger
- c. Digestive system processes contribute to regulation of hunger
  1. The vagus nerve carries info about the stretching of the stomach wall to the brain
  2. Nerves from the stomach carry info about nutrients in the stomach
- d. Hormonal Regulation
  1. Secretion of insulin is associated with increased hunger
    - A. Insulin is secreted by pancreas and facilitates the uptake of glucose by cells
    - B. Sight and smell of food can stimulate insulin secretion
  2. Secretion of Leptin is associated with decreased hunger
    - A. Leptin is secreted by fat cells into the blood
    - B. Provides hypothalamus w/ info about the body fat stores
    - C. Activates receptors in the brain that inhibit the release of neuropeptide Y, which leads to activity in the paraventricular nucleus of the hypothalamus, which inhibits eating
- e. Environmental Factors in the regulation of hunger
  1. The availability and palatability of food regulates hunger

- A. Incentive value of food
- 2. Environment cues that have been associated with eating regulates hunger
  - A. Hunger can be increased by exposure to pictures, written descriptions, and video of attractive food
- 3. Learned food preferences and learned eating habits regulate eating behavior
  - A. People from different cultures display different patters of food consumption
  - B. Taste preferences are partly due to conditioning
  - C. Eating habits are shaped by observational learning
  - D. Learned habits and social considerations influence when and how much people eat
- 4. Stress leads to increased eating in a substantial portion of people

### III. The Elements of Emotional Experience

- a. Emotion involves the following:
  - 1. A subjective conscience experience (the cognitive component)
  - 2. Bodily arousal (physiological component)
  - 3. Characteristic overt expansion (behavioral component)