Motivation

- Motivation
  - a need or desire that energizes and directs behavior
- Instinct
  - complex behavior that is rigidly patterned throughout a species and is unlearned
Motivation

Drive-Reduction Theory
- the idea that a physiological need creates an aroused tension state (a drive) that motivates an organism to satisfy the need

Need (e.g., for food, water) → Drive (hunger, thirst) → Drive-reducing behaviors (eating, drinking)
Homeostasis

-- tendency to maintain a balanced or constant internal state -- regulation of any aspect of body chemistry around a particular level

Body temperature increases

Perspire

Jog two miles

Blood vessels dilate

Normal body temperature

Reflexive shivering

Dive into a cold swimming pool

Blood vessels constrict

Body temperature decreases
Motivation

- **Incentive**
  - a positive or negative environmental stimulus that motivates behavior

- **High Achievement Motivation**
  - Will select moderate challenges or tasks

- **Low Achievement Motivation**
  - Will select very easy or very difficult tasks

- **Overjustification Effect**
  - Extrinsic rewards are unnecessary
  - Loss of intrinsic motivation
Motivation

Optimal Arousal

- Rather than reducing a physiological need or tension state, some motivated behaviors increase arousal

Yerkes-Dodson Law

- There is an optimal level of arousal for the best performance of any task; the more complex the task, the lower the level of arousal that can be tolerated before performance deteriorates.
- Easy task = needs high arousal
- Best performance = moderate level of arousal
The graph illustrates the relationship between performance level and arousal for difficult and easy tasks. For difficult tasks, the performance level is high at low arousal and decreases as arousal increases. For easy tasks, the performance level is high at high arousal and decreases as arousal decreases. The graph shows the inverted-U relationship, indicating that moderate levels of arousal optimize performance, while very low or very high arousal levels impair performance.
Humanistic Theories

Abraham Maslow suggested that motives are divided into several levels from basic survival needs to psychological and self-fulfillment needs.
Maslow’s Hierarchy of Needs

- **Physiological needs**: Need to satisfy hunger and thirst
- **Safety needs**: Need to feel that the world is organized and predictable; need to feel safe, secure, and stable
- **Belongingness and love needs**: Need to love and be loved, to belong and be accepted; need to avoid loneliness and alienation
- **Esteem needs**: Need for self-esteem, achievement, competence, and independence; need for recognition and respect from others
- **Self-actualization needs**: Need to live up to one’s fullest and unique potential

- begins at the base with physiological needs that must first be satisfied
- then higher-level safety needs become active
- then psychological needs become active
<table>
<thead>
<tr>
<th><strong>Maslow’s Characteristics of Self-Actualized People</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Realism and acceptance</strong></td>
</tr>
<tr>
<td><strong>Spontaneity</strong></td>
</tr>
<tr>
<td><strong>Problem centering</strong></td>
</tr>
<tr>
<td><strong>Autonomy</strong></td>
</tr>
<tr>
<td><strong>Continued freshness of appreciation</strong></td>
</tr>
<tr>
<td><strong>Peak experiences</strong></td>
</tr>
</tbody>
</table>

**SOURCE:** Based on Maslow (1970).
Motivation - Hunger

Stomach contractions accompany our feelings of hunger.

Subject swallows balloon, which measures stomach contractions.

Subject presses key each time he feels hungry.

Stomach contractions

Hunger pangs

Time in minutes
Motivation-Hunger

- **Glucose**
  - the form of sugar that circulates in the blood
  - provides the major source of energy for body tissues
  - when its level is low, we feel hunger
  - **Insulin and Glucose** are two substances in the blood that are critical in regulating hunger levels.
Motivation-Hunger

- **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

- **Basal Metabolic Rate**
  - body’s base rate of energy expenditure
Basal Metabolic Rate

- The rate at which the body uses energy for vital functions while at rest
- Factors that influence BMR
  - Age
  - Sex
  - Size
  - Genetics
  - Food intake
Average basal metabolic rates (calories burned per hour)

Age (years)

Males

Females
Percentage of overweight people by gender and age group

<table>
<thead>
<tr>
<th>Age group</th>
<th>Females</th>
<th>Males</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-11</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>12-17</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>20-34</td>
<td>40</td>
<td>60</td>
</tr>
<tr>
<td>35-44</td>
<td>50</td>
<td>70</td>
</tr>
<tr>
<td>45-54</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>55-64</td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td>65-74</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>75+</td>
<td>60</td>
<td>60</td>
</tr>
</tbody>
</table>
Prevalence of overweight and obesity among U.S. adults, age 20-74 years

- **Obese** (BMI ≥ 30.0)
- **Overweight** (BMI 25.0-29.9)
- **Overweight or obese** (BMI ≥ 25.0)
The **body mass index**, or **BMI**, is one measure of weight status. The BMI provides a single numerical value that represents your height in relation to your weight. To determine your BMI, grab a calculator and follow these steps:

**Step 1.** Multiply your weight in pounds by 703.5

**Step 2.** Square your height in inches

**Step 3.** Divide step 1 by step 2

This is your BMI.

**If your BMI is:**

- 18.4 or below: Underweight
- 18.5 to 24.9: Healthy weight
- 25.0 to 29.9: Overweight
- 30.0 and above: Obese
Motivation-Hunger

- The hypothalamus controls eating and other body maintenance functions
Hunger Drive

Two areas of the hypothalamus, the **lateral** and **ventromedial** areas, play a central role in the hunger drive.
Lateral Area

The lateral hypothalamus brings on hunger. When electrically stimulated there, a well-fed animal would begin to eat; when the area was destroyed, even a starving animal had no interest in food.
The ventromedial hypothalamus depresses hunger. Stimulate this area and an animal will stop eating; destroy it and the animal’s stomach and intestines will process food more rapidly, causing it to eat more often and to become extremely fat.
A lesion near the ventromedial area of the hypothalamus caused this rat’s weight to triple.
Research on Weight Regulation and Dieting

- Fat cells are determined by genetics and food intake.
- They increase with weight gain, but merely shrink with weight loss; may stimulate hunger.
- Weight loss causes a decline in basal metabolism.

![Fat cells diagram](image)

- Normal diet
- High-fat diet
- Return to normal diet
Effects of Culture and Habits on Body Weight

- Baseline body weight—cluster of genetic and environmental factors that cause a person’s weight to settle within a given range
- Weight can be affected by factors like diet, exercise, and daily habits (e.g., stairs instead of elevator)
Countries with hot climates, in which food historically spoiled more quickly, feature recipes with more bacteria-inhibiting spices. India averages nearly 10 spices per meat recipe, Finland 2 spices.
Factors Contributing to Being Overweight

- Highly palatable food—we eat because it tastes so good
- Supersize It—food portions are larger than necessary for health
- Cafeteria Diet Effect—more food and more variety leads us to eat more
- Snacking—does not cause us to eat less at dinner
- BMR—changes through the lifespan
- Sedentary lifestyles
**Motivation-Hunger**

**TABLE 12.1**

**THE APPETITE HORMONES**

<table>
<thead>
<tr>
<th>Hormone</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Insulin:</strong></td>
<td>Hormone secreted by pancreas; controls blood glucose.</td>
</tr>
<tr>
<td><strong>Leptin:</strong></td>
<td>Protein secreted by fat cells; when abundant, causes brain to increase metabolism and decrease hunger.</td>
</tr>
<tr>
<td><strong>Orexin:</strong></td>
<td>Hunger-triggering hormone secreted by hypothalamus.</td>
</tr>
<tr>
<td><strong>Ghrelin:</strong></td>
<td>Hormone secreted by empty stomach; sends “I’m hungry” signals to the brain.</td>
</tr>
<tr>
<td><strong>PYY:</strong></td>
<td>Digestive tract hormone; sends “I’m not hungry” signals to the brain.</td>
</tr>
</tbody>
</table>
Eating Disorders

- Anorexia Nervosa
  - when a normal-weight person diets and becomes significantly (>15%) underweight, yet, still feeling fat, continues to starve
  - usually an adolescent female
Eating Disorders

- **Bulimia Nervosa**
  - disorder characterized by episodes of overeating, usually of high-calorie foods, followed by vomiting, laxative use, fasting, or excessive exercise
Eating Disorders: Anorexia Nervosa

An anorexic is defined as a person who has stopped eating and is at least 25% underweight. Anorexics have low self-esteem and a distorted body image. They see themselves as being overweight.

- Every system in the body can be damaged.
- As the body adjusts to extremely low food intake, it becomes unable to handle nourishment except in very, very small amounts.
- As with bulimia, most victims are female.
Eating Disorders: Bulimia Nervosa

Bulimia is characterized by overeating (bingeing) and induced (forced) vomiting.

- 80-85% of bulimics are female
- Low self-esteem is a major factor
- Males lose weight for sport competition
- Causes irritation to the throat and mouth and future digestive problems
- Causes erosion to the teeth enamel
Women’s Body Images

2
Thinnest

Women’s ideal

What women believed men preferred

3

What men actually preferred

3.5

4

Women’s current body image

4.5

5
Fattest
What Motivates Sexual Behavior?

- Necessary for the survival of the species but not of the individual
- Lower animals motivated by hormonal changes in the female
- Higher species less influenced by hormones and more by learning and environmental influences
Sexual Motivation

- **Sex**
  - a physiologically based motive, like hunger, but it is more affected by learning and values

- **Sexual Response Cycle**
  - the four stages of sexual responding described by Masters and Johnson
    - excitement
    - plateau
    - orgasm
    - resolution
Sexual Motivation

**Stage 1: Excitement Phase**
The genital areas become engorged with blood, causing the man’s penis to become partially erect and the woman’s clitoris to swell and the inner lips covering her vagina to open up. Her vagina also expands and secretes lubricant, and her breasts and nipples may enlarge.
Sexual Motivation

Stage 2: Plateau Phase

Excitement peaks as breathing, pulse, and blood pressure rates continue to increase. The penis become fully engorged and some fluid – frequently containing enough live sperm to enable conception – may appear at the tip of the penis. Vaginal secretion continues to increase, the clitoris retracts, and orgasm feels imminent.
Sexual Motivation

**Stage 3: Orgasm**

Muscle contractions all over the body. These are accompanied by further increases in breathing, pulse, and blood pressure rates. A woman’s arousal and orgasm facilitate conception by helping propel sperm farther inward. A woman’s orgasm therefore not only reinforces intercourse, which is essential to natural reproduction, it also increases retention of deposited sperm.
Stage 4: Resolution Phase
After orgasm, the body gradually returns to its unaroused state as the engorged genital blood vessels release their accumulated blood – relatively quickly if orgasm has occurred, relatively slowly otherwise. During the resolution phase, the male enters a refractory period, lasting from a few minutes to a day or more, during which he is incapable of another orgasm. The female’s refractory period is not very long, which may make it possible for her to have another orgasm if restimulated during or soon after resolution.
Sexual Motivation

- **Refractory Period**
  - resting period after orgasm, during which a man cannot achieve another orgasm

- **Estrogen**
  - a sex hormone, secreted in greater amounts by females than by males
Female Sexual Responses: Three Basic Variations

- Orgasm
- Plateau
- Excitement

Diagrams showing three different curves for each stage, labeled 1, 2, and 3, indicating different resolution points.
Sexual Disorders
Sexual disorders are problems that consistently impair sexual functioning.

Premature Ejaculation—ejaculation before they or their partners wish. 3 in 10 men reported having this disorder. Treatment: Squeeze Technique

Impotence—the inability to have or maintain an erection. 1 in 10 acknowledged having this disorder. Treatment: VIAGRA

Orgasmic Disorder—infrequently or never experiencing orgasm. 1 in 4 acknowledged having this disorder. Treatment: Behavioral treatment that trains women to enjoy their bodies.
Forces Affecting Sexual Motivation

Physiological readiness

Imagined stimuli

External stimuli

Sexual motivation
Sexual Motivation

- Same drives, different attitudes

"Do you think it is, or is not, morally wrong for a couple to have a baby if they are not married?"

<table>
<thead>
<tr>
<th>Country</th>
<th>Percent answering &quot;wrong&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iceland</td>
<td>1%</td>
</tr>
<tr>
<td>Germany</td>
<td>10%</td>
</tr>
<tr>
<td>Great Britain</td>
<td>20%</td>
</tr>
<tr>
<td>Canada</td>
<td>25%</td>
</tr>
<tr>
<td>Mexico</td>
<td>30%</td>
</tr>
<tr>
<td>United States</td>
<td>40%</td>
</tr>
<tr>
<td>India</td>
<td>50%</td>
</tr>
<tr>
<td>Taiwan</td>
<td>55%</td>
</tr>
<tr>
<td>Singapore</td>
<td>100%</td>
</tr>
</tbody>
</table>
Sexual Motivation

- Births to unwed parents
Culture

- Adolescents’ physical maturation fosters a sexual dimension to their emerging identity. But culture is a big influence, too, as is apparent from varying rates of teen intercourse and pregnancy.
Teen Pregnancy

- a. Ignorance
- b. Guilt related to sexual activity
- c. Minimal communication about birth control
- d. Alcohol use
- e. Mass media norms of unprotected promiscuity
Sexual Motivation

- **Sexual Orientation**
  - an enduring sexual attraction toward members of either one’s own gender (homosexual orientation) or the other gender (heterosexual orientation)
Sexual Orientation

- **Heterosexual**—sexual attraction for the opposite sex
- **Homosexual**—sexual attraction for the same sex
- **Gay**—typically used to describe male homosexuals
- **Lesbian**—typically used to describe female homosexuals
- **Bisexual**—sexual attraction for both sexes
I went to my HMO doctor today.

I think our doctor is an HMO, but Frank thinks he's straight.
Determination of Sexual Orientation

- **Genetics**—role suggested by twin and family studies
- **Brain structure**—differences found in hypothalamus of homosexual and heterosexual men
- **Complex issue with no clear answers**
Some General Findings

- Sexual orientation is an early-emerging, ingrained aspect of the self that probably does not change.
- No consistent relationship between orientation and childhood experiences (e.g., parenting, abuse, sexual experience).
- Controversial findings suggest a possible relationship among prenatal stress, androgens, and the development of brain systems that play a role in sexual attraction.
Sexual Motivation

**Table 12.2**

**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 fraternals 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.
Sexuality in Adulthood

- Majority of adults (80%) report having none or one sexual partner in the past year (marriage factor)
- Majority of men ages 18-59 have sex about seven times per month
- Majority of women ages 18-59 have sex about six times per month
- Vaginal intercourse is nearly universal as the most widely practiced sexual activity among heterosexual couples
- 50 percent of older Americans reported sexual activity at least once per month.
Sexual Motivation

Entering collegians agreeing that “It is important to have laws prohibiting homosexual relationships.”

- 53% in 1987
- 25% in 2002
THE NEED TO BELONG

- A motivation to form and maintain enduring, close personal relationships.
AIDING SURVIVAL

- Social bonds—children staying close to their caregivers serve as a powerful survival impulse.
- Cooperation in groups also enhance survival
WANTING TO BELONG

- What makes life meaningful? -- satisfying close relationships
To avoid rejection, we generally conform to group standards and seek to make favorable impressions. To win friendship and esteem, we monitor our behavior, hoping to create the right impressions. Seeking love and belonging, we spend billions on clothes, cosmetics, and diet and fitness aids—all motivated by our quest for acceptance.
ACTING TO INCREASE SOCIAL ACCEPTANCE
MAINTAINING RELATIONSHIPS

- People resist breaking social bonds
- Familiarity breeds liking, not contempt
FORTIFYING HEALTH

- People who feel supported by close relationships live with better health and at lower risk for psychological disorder and premature death than do those who lack social support.
- Married people are less at risk for depression, suicide, and early death than are unattached people.
Motivation at Work

- **Flow**
  - a completely, involved, focused state of consciousness, with diminished awareness of self and time, resulting from optimal engagement of one’s skills

- **Industrial/Organizational (I/O) Psychology**
  - the application of psychological concepts and methods to optimizing human behavior in workplaces
Motivation at Work

- Personnel Psychology
  - sub-field of I-O psychology that focuses on employee recruitment, selection, placement, training, appraisal, and development

- Organizational Psychology
  - Sub-field of I-O psychology that examines organizational influences on worker satisfaction and productivity and facilitates organizational change
Harnessing Strengths

- Identifying people’s strengths and matching strengths to work is a first step toward workplace effectiveness.
Motivation at Work

- **Structured Interview**
  - process that asks the same job-relevant questions of all applicants
  - rated on established scales
Achievement Motivation

- a desire for significant accomplishment
  - for mastery of things, people, or ideas
  - for attaining a high standard
Motivation

- Intrinsic Motivation
  - Desire to perform a behavior for its own sake

- Extrinsic Motivation
  - Desire to perform a behavior due to promised rewards or threats of punishments
Motivation

- **Task Leadership**
  - goal-oriented leadership that sets standards, organizes work, and focuses attention on goals

- **Social Leadership**
  - group-oriented leadership that builds teamwork, mediates conflict, and offers support
Motivation

- **Theory X**
  - assumes that workers are basically lazy, error-prone, and extrinsically motivated by money
  - workers should be directed from above

- **Theory Y**
  - assumes that, given challenge and freedom, workers are motivated to achieve self-esteem and to demonstrate their competence and creativity
Worker dead at desk for five days

From the New York Times: Bosses of a publishing firm are trying to work out why no one noticed that one of their employees had been sitting dead at his desk for five days before anyone asked if he was feeling okay. George Turklebaum, 51, who had been employed as a proof-reader at a New York firm for 30 years, had a heart attack in the open-plan office he shared with 23 other workers.

He quietly passed away on Monday, but nobody noticed until Saturday morning when an office cleaner asked why he was working during the weekend.

His boss, Elliot Wachiaski, said: "George was always the first guy in each morning and the last to leave at night, so no one found it unusual that he was in the same position all that time and didn't say anything. He was always absorbed in his work and kept much to himself."

A post mortem examination revealed that he had been dead for five days after suffering a coronary. George was proofreading manuscripts of medical textbooks when he died.

You may want to give your co-workers a nudge occasionally. The moral of the story: Don't work too hard. Nobody notices anyway.
Airplane
Coworkers
Cubism