



Motivation

Chapter 11
Psy12000.003

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What Motivates You To Come To Class?

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Motivation

Motivation is a need or desire that *energizes* behavior and *directs* it towards a goal.

What's the difference between a *need* and a *desire*?

Extrinsic motivation is something outside the person that energizes behavior.

Money, fame, power

Intrinsic motivation is something within the person that energizes behavior.

Interest, curiosity, personal challenge and improvement

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Do Rats Have a Protestant Work Ethic?

- The earned vs. free food phenomenon



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Perspectives on Motivation

Perspectives to explain motivation include the following:

- Instinct Theory
- Drive-Reduction Theory
- Arousal Theory
- Hierarchy of Motives
- Cognitive based theory: Self-efficacy

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Instincts & Evolutionary Psychology

Instincts are complex behaviors that have fixed patterns throughout different species and are not learned (Tinbergen, 1951).



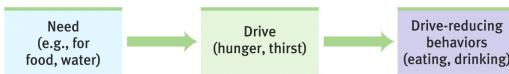
Tony Stone/PhotoLink/Thomson Learning, Inc.

Where the woman builds different kinds of houses
the bird builds only one kind of nest.

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Drive-Reduction Theory

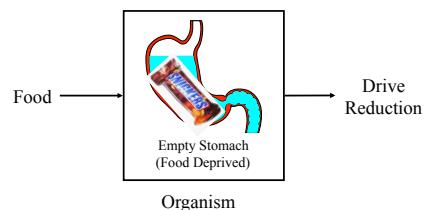
When the instinct theory of motivation failed to explain most human motivation, it was replaced by the drive-reduction theory. A physiological need creates an aroused tension state (a drive) that motivates an organism to satisfy the need (Hull, 1951).



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Drive Reduction

The physiological aim of drive reduction is **homeostasis**, the maintenance of a steady internal state (e.g., maintenance of steady body temperature).



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Incentive

Where our needs **push**, **incentives** (positive or negative stimuli) **pull** us in reducing our drives.

Henry Murray called these needs and presses.

A food-deprived person (*n Hunger*) who smells baking bread (incentive) (*p Food*) feels a strong hunger drive.

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Question

- What need would explain why we seek thrills, excitement?
- Why do we like scary movies?
- What drives are being reduced by going on a roller coaster or parachuting?



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Optimum Arousal

Human motivation aims to seek optimum levels of arousal, not to eliminate it. Young monkeys and children are known to explore the environment in the absence of a need-based drive.



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Hierarchy of Needs

Abraham Maslow (1970) suggested that certain needs have priority over others. Physiological needs like breathing, thirst, and hunger come before psychological needs such as achievement, self-esteem, and the need for recognition.



(1908-1970)

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Maslow's Hierarchy of Needs



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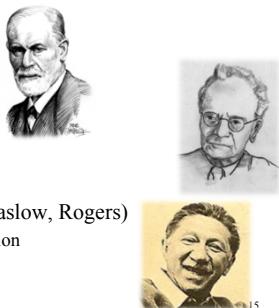
Self-Efficacy-Bandura

- A belief (cognitive component of theory) in one's abilities to succeed
- A sense of control over one's environment (social, work, etc.)
- Self-efficacy can be strengthened with clear goals, social modeling, feedback, and challenges to current ability levels.
- On YouTube, there are many short videos about self-efficacy.

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Classic Positions on Motivation

- Freud
 - Id
 - Ego
 - Superego
- Skinner
 - Reinforcement
- Humanistic (Maslow, Rogers)
 - Self-actualization



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Specific Motivations

- Social
- Control
- Hunger
- Sex
- Belonging
- Work

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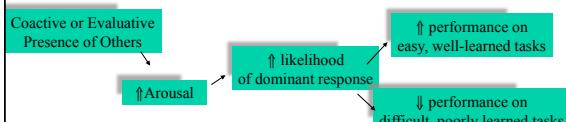
Social Motivation

- Others' opinions and evaluations of self contribute to a strong motivating system
- Social Facilitation, Social Loafing
- Self-monitoring
- Fame
 - Being known, recognized may supersede being liked
 - Jerry Springer's guests?
- Conformity
 - Fitting in = Being liked
 - Avoiding rejection/exclusion
- Social motivation contributes to what and how much we eat, whether or not we smoke, take drugs, have sex...



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Social Facilitation

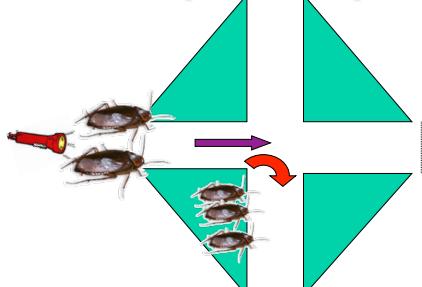


But, why?

- (1) *Compresence* (Zajonc, 1966)
- (2) *Evaluation apprehension* (Cottrell, 1968)
- (3) *Distraction-conflict* (Baron & Sanders, 1986)

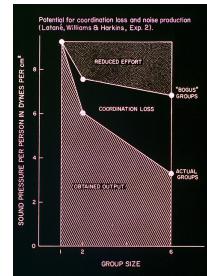
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Social Facilitation: The Compresence Explanation



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Social Loafing

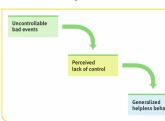


Latané, Williams, & Harkins (1979)

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Control Motivation

- Reactance
 - When you feel that your freedom is being restricted, you will act in such a way to regain that freedom
- Learned Helplessness
 - Upon repeated noncontingencies between one's behaviors and one's outcomes (and after initial reactance), learned helplessness occurs
 - Uncontrolled negative outcomes more likely to cause LH than uncontrolled positive outcomes
 - But see [Self-handicapping](#)
 - Giving up
 - Pessimism
 - Depression



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Hunger

- When do we eat?
- Why do we like certain foods and not others?
- Why do we eat too much?
- Why do our emotions affect our eating?



An obvious answer to "When do we eat?" is "When are we hungry." Turns out, that's only part of the answer.

But, how do we know when we are hungry?

When there is no food in our stomach.

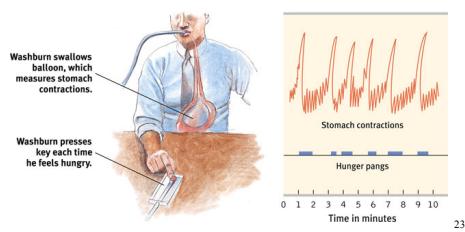
How do we know when our stomach is empty?

Our stomach growls. These are also called hunger pangs.

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The Physiology of Hunger

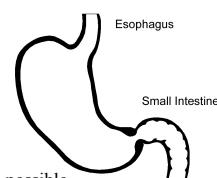
Stomach contractions (pangs) send signals to the brain making us aware of our hunger.



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Yet....Stomachs Removed

Tsang (1938) removed rat stomachs, connected the esophagus to the small intestines, and the rats still felt hungry (and ate food).



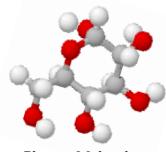
In other words, no hunger pangs were possible... yet eating persisted

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The Importance of Glucose: $C_6H_{12}O_6$

Increases in *insulin* (a hormone affecting pancreas, liver, muscle, and fat tissue) decreases *glucose* in the blood.

Decreased *glucose* makes us feel hungry.



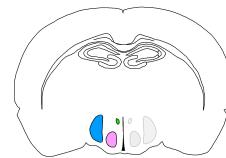
Insulin also affects brain: improves verbal memory

Glucose Molecule

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Glucose & the Brain

Levels of glucose in the blood are monitored by receptors (neurons) in the stomach, liver, and intestines. They send signals to the hypothalamus in the brain.

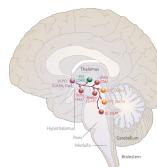


Rat Hypothalamus

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Hypothalamic Centers

The lateral hypothalamus (LH) brings on hunger (stimulation).



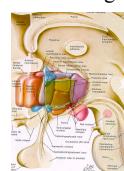
Destroy the LH, and the animal has no interest in eating.

With the LH intact, the reduction of blood glucose leads rats to eat ravenously.

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Hypothalamic Centers

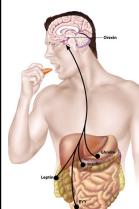
The ventromedial hypothalamus (VMH) depresses hunger (when stimulated).



If you destroy the VMH, the animal eats excessively.

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Hypothalamus & Hormones



Hormone	Tissue	Response
Orexin increase	Hypothalamus	Increases hunger
Ghrelin increase	Stomach	Increases hunger
Insulin increase	Pancreas	Increases hunger
Leptin increase	Fat cells	Decreases hunger
PPY increase	Digestive tract	Decreases hunger

The hypothalamus monitors a number of hormones that are related to hunger.

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Set-Point Theory

Manipulating the lateral and the ventromedial hypothalamus alters the body's "weight thermostat."

If weight is lost, food intake increases and energy expenditure decreases. If weight is gained, the opposite takes place.

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The Psychology of Hunger

Memory plays an important role in hunger.

When did I eat last?

Due to difficulties with retention, amnesia patients eat frequently if given food (Rozin et al., 1998).

Schachter found that manipulating a clock on the wall influenced reports of hunger, and willingness to eat.



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Taste Preference: Biology or Culture?

Body chemistry and environmental factors influence not only *when* we feel hungry but *what* we feel hungry for!

Fullness doesn't necessarily mean you don't want to eat anything else. It often means, "I am tired of that particular taste."



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Social Factors

- We eat when others eat whether we are hungry or not; we tend not to like eating alone (especially females)
- Females eat less with a male than they eat with a female. (Males are unaffected)
- Current investigation here at Purdue examining whether fat rats will regulate their intake when in the presence of skinny rats.



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Eating Disorders

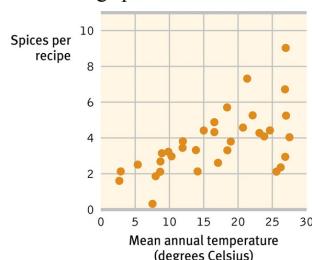
Anorexia Nervosa: A condition in which a normal-weight person (usually an adolescent woman) continuously loses weight but still feels overweight.



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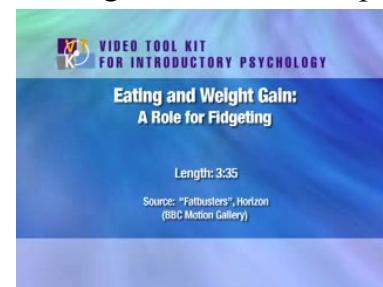
Hot Cultures like Hot Spices

Countries with hot climates use more bacteria-inhibiting spices in meat dishes.



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Is the Relationship between Eating and Weight Gain That Simple?



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Eating Disorders

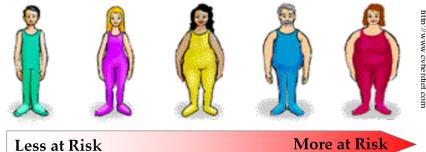
Bulimia Nervosa: A disorder characterized by episodes of overeating, usually high-calorie foods, followed by vomiting, using laxatives, fasting, or excessive exercise.



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Obesity

A disorder characterized by being excessively overweight. Obesity increases the risk for health issues like cardiovascular diseases, diabetes, hypertension, arthritis, and back problems.



http://www.ncbi.nlm.nih.gov

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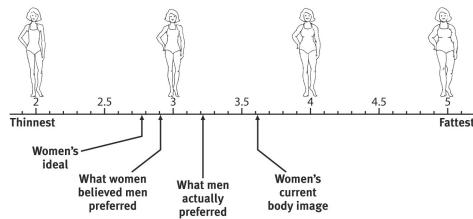
Reasons for Eating Disorders

- **Sexual Abuse Myth:** Childhood sexual abuse **does not** cause eating disorders.
- **Family:** Younger generations develop eating disorders when raised in families in which weight is an excessive concern.
- **Genetics:** Twin studies show that eating disorders are more likely to occur in identical twins rather than fraternal twins.
- **Social:** Advertising/peer pressure/norms.

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Body Image (Women)

Western culture tends to place more emphasis on a thin body image in comparison to other cultures.



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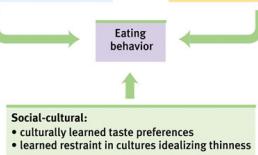
Summary

Biological:

- mid-hypothalamic centers in the brain monitoring appetite
- appetite hormones
- stomach pangs
- set/settling point weight
- universal attraction to sweet and salty
- adaptive wariness toward novel foods

Psychological:

- sight and smell of a variety of tasty foods
- memory of time elapsed since last meal
- mood



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Sexual Motivation



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Sexual Motivation

Why are we sexually attracted to certain others?

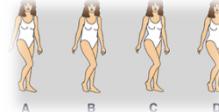
What, specifically, is motivating about sex?

Sexual motivation is nature's clever way of making people procreate, enabling our species to survive.

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Waist-to-hip ratio

- Interestingly, despite variations in cultures and eras for women's weight, men have always preferred women as mates who have roughly the same waist-to-hip ratio.



- The ideal ratio for women is considered to be about 0.7
- Devendra Singh's (1993) research

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The Physiology of Sex

Masters and Johnson (1966) describe the human sexual response to consist of four phases:

Phase	Physiological Response
Excitement	Genitals become engorged with blood. Vagina expands secretes lubricant. Penis enlarges.
Plateau	Excitement peaks such as breathing, pulse and blood pressure.
Orgasm	Contractions all over the body. Increase in breathing, pulse & blood pressure. Sexual release.
Resolution	Engorged genital release blood. Male goes through refractory phase . Women resolve slower.

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Sexual Problems

Men generally suffer from two kinds of sexual problems: **premature ejaculation** and **erectile disorder**. Women may suffer from **orgasmic disorders**.

These problems are not due to personality disorders and can be treated through behavior therapy and drugs such as Viagra.

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Hormones and Sexual Behavior

Sex hormones effect the **development of sexual characteristics** and (especially in animals) **activate sexual behavior**.

Male	Testes	Testosterone (Small amounts of estrogen)
Female	Ovaries Adrenals	Estrogen (Small amounts of testosterone)

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Testosterone

Levels of testosterone remain relatively constant in males, so it is difficult to manipulate and activate sexual behavior. Castration, which reduces testosterone levels, lowers sexual interest.

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Estrogen

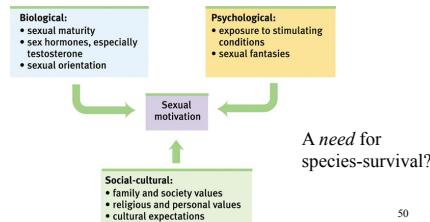
Female animals “in heat” express peak levels of estrogen. Female receptivity may be heightened with estrogen injections.

Sex hormones may have milder affects on humans than on animals. Women are more likely to have sex when close to ovulation (increased testosterone), and men show increased testosterone levels when socializing with women.

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The Psychology of Sex

Hunger responds to a need. If we do not eat, we die. In that sense, sex is not a need because if we do not have sex, we do not die.



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What is motivating about sex?

- The physiological pleasure derived from orgasm?
 - If that's it, why not be satisfied with masturbation?

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External Stimuli

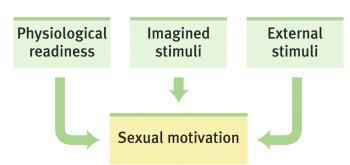
It is common knowledge that men become sexually aroused when browsing through erotic material. However, women experience similar heightened arousal under controlled conditions.



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Imagined Stimuli

Our imagination in our brain can influence sexual arousal and desire. People with spinal cord injuries and no genital sensation can still feel sexual desire.



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Dreams

Dreams, another form of imagination, are also associated with sexual arousal. Genital arousal is associated with all kinds of dreams. Nearly all men and 40% of women who dream of sexual imagery end up with an orgasm (Wells, 1986).

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Adolescent Sexuality

When individuals reach adolescence, their sexual behavior develops. However, there are cultural differences.

Sexual promiscuity in modern Western culture is much greater than in Arab countries and other Asian countries.

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Contraception

- **Ignorance:** Canadian teen girls do not have the right ideas about birth control methods.
- **Guilt Related to Sexual Activity:** Guilt reduces sexual activity, but it also reduces the use of contraceptives.
- **Minimal Communication:** Many teenagers feel uncomfortable about discussing contraceptives.
- **Alcohol Use:** Those who use alcohol prior to sex are less likely to use contraceptives.
- **Mass Media:** The media's portrayal of unsafe extramarital sex decreases the use of contraceptives.

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Sexually Transmitted Infections

Correlational studies reveal factors that reduce sexual activity in teens.

- **High Intelligence:** Teens with higher intelligence are likely to delay sex.
- **Religiosity:** Religious teens and adults often reserve sex for a marital commitment.
- **Father Presence:** A father's absence from home can contribute to higher teen sexual activity.
- **Learning Programs:** Teens who volunteer and tutor in programs dedicated to reducing teen pregnancy are less likely to engage in unsafe sex.

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Sexual Orientation

Sexual orientation refers to a person's preference for emotional and sexual relationships with individuals of the same sex, the other sex, and/or either sex.



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Sexual Orientation Statistics

In Europe and America, based on many national surveys, homosexuality in men is 3-4% and in women is 1-2%.

As members of a minority, homosexuals often struggle with their sexual orientation.

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Origins of Sexual Orientation

Homosexuality is more likely based on biological factors like differing brain centers, genetics, and parental hormone exposure rather than environmental factors.



Homosexual parents

Credit: iStock / Alamy / DPA / Imagine

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Animal Homosexuality



A number of animal species are devoted to same-sex partners, suggesting that homosexuality exists in the animal world.

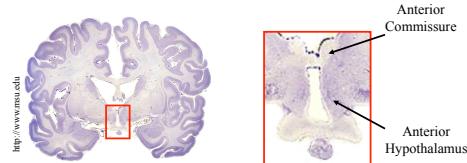
Wendell and Cass

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The Brain

In homosexual men, the size of the anterior hypothalamus is *smaller* (LeVay, 1991) and the anterior commissure is *larger* (Allen & Gorski, 1992).

Again, this is correlational.



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Genes & Sexual Orientation

A number of reasons suggest that homosexuality may be due to genetic factors.

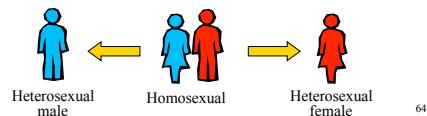
- **Family:** Homosexuality seems to run in families.
- **Twin studies:** Homosexuality is more common in identical twins than fraternal twins. However, there are mixed results.
- **Fruit flies:** Genetic engineers can genetically manipulate females to act like males during courtship and males to act like females.

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Hormones & Sexual Orientation

Prenatal hormones affect sexual orientation during critical periods of fetal development.

- **Animals:** Exposure of a fetus to testosterone results in females (sheep) exhibiting homosexual behavior.
- **Humans:** Exposure of a male or female fetus to female hormones results in an attraction to males.



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Sexual Orientation: Biology

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

- One 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.
- Anterior commissure is larger in gay men than in women or straight men.
- Gay men's hypothalamus reacts as does a woman's to the smell of sex-related hormones.

Genetic influences

- Shared sexual orientation is higher among identical twins than among fraternal twins.
- Sexual attraction in 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.

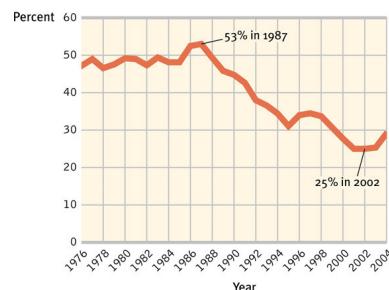
These brain differences and genetic and prenatal influences may contribute to observed gay-straight differences in

- spatial abilities.
- fingerprint ridge counts.
- auditory system development.
- handedness.
- occupational preferences.
- relative finger lengths.
- gender nonconformity.
- age of onset of puberty in males.
- male body size.
- sleep length.
- hearing system.

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Changing Attitudes

Entering collegians agreeing that "it is important to have laws prohibiting homosexual relationships."



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Sex and Human Values

"Promiscuous recreational sex poses certain psychological, social, health, and moral problems that must be faced realistically" (Baumrind, 1982).



Andreas Seglow/Corbis Images

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The Need to Belong

"[Man] is a social animal," (Aristotle). Separation from others increases our need to belong.



© Warner Bros. Domestic Theatrical Collection

"Cast Away," Tom Hanks, suffers from social starvation.

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Aiding Survival

Social bonds boosted our ancestors' survival rates. These bonds led to the following:

- Protecting against predators, especially for the young.
- Procuring food.
- Reproducing the next offspring.

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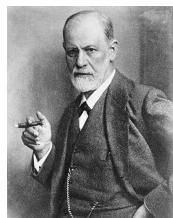
Belongingness

- **Wanting to Belong:** The need to belong influences our thinking and emotions.
- **Social Acceptance:** A sense of belonging with others increases our self-esteem. Social exclusion decreases it.
- **Maintaining Relationships:** We resist breaking social bonds, even bad ones.
- **Exclusion:** Social exclusion leads to demoralization, depression, and when reinclusion seems unlikely, nasty behavior.
- **Fortifying Health:** People who tend to have close friends are happier and healthier.

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Motivation at Work

The healthy life, said Sigmund Freud, is filled by love and work.



Oliver Paquet

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Attitudes Towards Work

People have different attitudes toward work. Some take it as a:

- **Job:** Necessary way to make money.
- **Career:** Opportunity to advance from one position to another.
- **Calling:** Fulfilling a socially useful activity.

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Flow & Rewards

Flow is the experience between no work and a lot of work. Flow marks immersion into one's work.

(Mihaly Csikszentmihalyi, 1990)

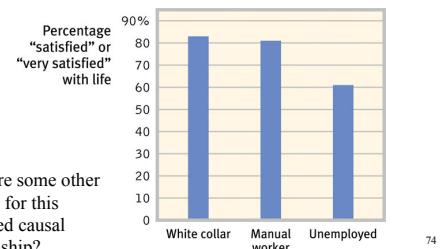


People who “flow” in their work (artists, dancers, composers etc.) are driven less by extrinsic rewards (money, praise, promotion) and more by intrinsic rewards.

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Work and Satisfaction

In industrialized countries work and satisfaction go hand-in-hand.



What are some other reasons for this supposed causal relationship?

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Industrial-Organizational (I/O) Psychology

Applies psychological principles to the workplace.

- **Personnel Psychology:** Studies the principles of selecting and evaluating workers.
- **Organizational Psychology:** Studies how work environments and management styles influence worker motivation, satisfaction, and productivity.

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Personnel Psychology

Personnel psychologists assist organizations at various stages of selecting and assessing employees.



Henri Matisse

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Harnessing Strengths

Identifying people's strengths (analytical, disciplined, eager to learn etc.) and matching them to a particular area of work is the first step toward workplace effectiveness.

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Interviews & Performance

Interviewers are confident in their ability to predict long-term job performance. However, informal interviews are less informative than standardized tests.

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The Interviewer Illusion

Interviewers often overrate their discernment.

- **Intention vs. Habits:** Intentions matter, but long-lasting habits matter even more.
- **Successful Employees:** Interviewers are more likely to talk about those employees that turned out successful.
- **Presumptions about Candidates:** Interviewers presume (wrongly) that what we see (candidate) is what we get.
- **Preconceptions:** An interviewer's prior knowledge about the candidate may affect her judgment.

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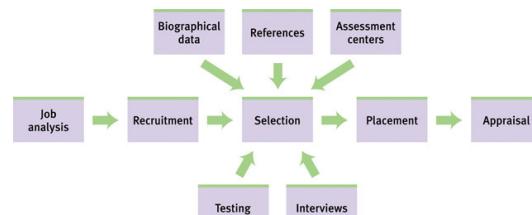
Structured Interview

A formal and disciplined way of gathering information from the interviewee. Structured interviews pinpoint strengths (attitudes, behaviors, knowledge, and skills). The personnel psychologist may do the following:

- Analyze the job.
- Script questions.
- Train the interviewer.

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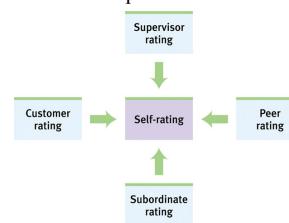
Personnel Psychologist's Tasks



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Appraising Performance

Appraising performance results in two things: 1) employee retention, and 2) the encouragement of better performance.



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Organizational Psychology: Motivating Achievement

Achievement motivation is defined as a desire for significant accomplishment.



Skinner devised a daily discipline schedule that led him to become the 20th century's most influential psychologist.

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Satisfaction & Engagement

Harter et al., (2002) observed that **employee engagement** means that the worker:

1. Knows what is expected of him.
2. Feels the need to work.
3. Feels fulfilled at work.
4. Has opportunities to do his best.
5. Thinks himself to be a part of something significant.
6. Has opportunities to learn and develop.



Engaged workers are more productive than non-engaged workers at different stores of the same chain.

Copyright Author/David Ladd/AP/Wide World Photos

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Managing Well

Every leader dreams of managing in ways that enhance people's satisfaction, engagement, and productivity in his or her organization.

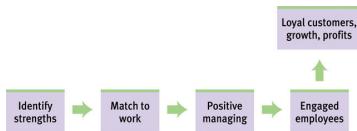


Larry Brown offers 4-5 positive comments for every negative comment.

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Job-Relevant Strengths

Effective leaders need to select the right people, determine their employees' talents, adjust their work roles to their talents, and develop their talents and strengths.



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Challenging Goals

Specific challenging goals motivate people to reach higher achievement levels, especially if there is feedback such as progress reports.

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Leadership Style

- Different organizational demands need different kinds of leaders. Leadership varies from a boss-focused style to a democratic style.
- **Task Leadership:** Involves setting standards, organizing work, and focusing on goals.
- **Social Leadership:** Involves mediating conflicts and building high achieving teams.



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