

WHS AP Psychology

Unit 8: Motivation, Emotion and Stress

<u>Essential Task 8-6</u>: Essential Task: Describe classic research findings in specific motivation systems (e.g., eating, sex, social).



Essential Task 8-6:

- Motivation Systems:
 - Thirst
 - Hunger
 - Sex

:): Thirst

- Biology of Thirst
 - Monitor the level of fluids inside the cells
 - When levels drop thirst drive is activated
 - Another monitors level of fluids outside the cells causing less blood to flow to the kidneys
 - This in turn causes the activation of the thirst drive
 - Environmental cues

:): The Biology of Hunger

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



:): Stomachs Removed

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

Glucose: $C_6H_{12}O_6$

The glucose level in blood is maintained by your pancreas. Insulin decreases glucose in the blood, when the level gets too low, we feel hungry.



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

Hypothalamus controls drives (hunger)
The lateral hypothalamus (LH) brings on hunger (when stimulated lab animals ate!).
Destroy the LH, and the animal has no interest in eating.

• The reduction of blood glucose stimulates *orexin* in the LH, which leads one to eat



Hypothalamic Centers

The ventromedial hypothalamus (VMH) depresses hunger (satiety)
Destroy the VMH, and the animal eats excessively.



lisioning the ventromedial nucleus of the hypothalamus in rats an lead to such overeating that they triple their weight.



:): Leptin

- Fat cells in our body produce leptin
- Hypothalamus monitors these levels
- High levels of leptin signal the brain to reduce appetite or increase the rate at which fat is burned.
- Leptin deficiency can cause obesity



Cther hormones

- Insulin
 - Secreted by pancreas; controls blood glucose
- Orexin
 - Hunger-triggering hormone secreted the hypothalamus
- Ghrelin
 - Secreted by empty stomach; sends "I'm Hungry" signals to the brain.
- Obestatin
 - Secreted by the stomach; sends "I'm full" signals by the brain

The Psychology of Hunger

• Environmental cues can trigger the biological responses (increased insulin production)

-Late at night you watch commercials for fast food

•Memory plays an important role in hunger. Due to difficulties with retention, amnesia patients eat frequently if given food (Rodin et al., 1998).

• Emotional attachment?

–When you're sad what do you want to eat? "I scream for Icecream!"

Social expectations

-It's your BFs or GFs Birthday!

Conditioning

-When you eat cake or cookies what do you want to eat?

Taste Preference: Biology orCulture?

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





Victor Englebert

Hot Cultures like Hot Spices

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



:): Summary



Basal Metabolic Rate

- The body's resting rate of energy expenditure for maintaining basic body functions when the body is at rest.
- High metabolism means your body burns energy from food (what would be the evolutionary disadvantage of high metabolism?)

:): Set-Point Theory

- According to the set-point theory, there is a control system built into every person dictating how much fat he or she should carry – a kind of thermostat for body fat.
- Some individuals have a high setting, others have a low one.
- According to this theory, body fat percentage and bodyweight are matters of internal controls that are set differently in different people.
 - Think back to homeostasis

Diet Industry

- \$20 Billion dollar a year industry (including diet books, diet drugs and weight-loss surgeries.)
- 85% of customers are females
- It has a failure rate in the 90s.

:): OA 3

- 1. Tell me what you know about the following eating disorders :
- Anorexia Nervosa
- Bulimia Nervosa
- 2. Do eating disorders stem from childhood abuse?
- 3. What factors may influence eating disorders?

Reasons for Eating Disorders

- 1. Sexual Abuse: Childhood sexual abuse does not cause eating disorders.
- 2. Family: Younger generations develop eating disorders when raised in families in which weight is an excessive concern.
- 3. Genetics: Twin studies show that eating disorders are more likely to occur in identical twins rather than fraternal twins.
- 4. Obsessive-compulsive disorder need to control
- 5. Depression and low-self esteem

Eating Disorders

- Binge-eating disorder -- characterized by recurrent episodes of eating large quantities of food (often very quickly and to the point of discomfort)
- Bulimia Nervosa Eating binges followed by purges (vomiting or use of laxatives)
 - Mostly by women
 - https://www.youtube.com/watch?v=iy_RPP
 2elfk

- Anorexia Nervosa starvation diets and have unrealistic body images. No matter how thin or emaciated they become they will continue to starve themselves
 - Mostly by women

















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Becoming a donor is probably your only chance to get inside her.

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ALL ANIMALS HAVE THE SAME PARTS HAVE A HEARS SHOULDE SVEGETAR LEG ROUND FEE Pamela Anderson PCTA

0

Media portrayals of men and women are radically different.

- The people you see are fake. They are genetically rare, plastic surgery enhanced and extensively photshopped.
- Average model is size 0 or 00 she is 5'10" 110 lbs.
- Average American woman is size 12 to 14 and is 5'4" 140 lbs.






















SKINNY ALWAYS GETS THE ATTENTION.

skinny skinny

The first ever Sodium-Free, ZERO Calories, ZERO Sugar, ZERO Carbs, ZERO Guit, Antioxidant, Electrolyte and Vitamin packed beverage.

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BOOK REPORT SAINY

skinnywater.com

"I Can't Afford To Be SKINNY"

... says Glamorous Actress RAQUEL WELCH

BEING INTRODUCED IN RENO CARELL'S - "A SWINGIN' SUMMER" STARRING JAMES STACY, WILLIAM WELLMAN JR. & QUINN O'HARA A RENO CARELL-NTC PRODUCTION - UNITED SCREEN ARTS RELEASE

"Movie and Television film making in Hollywood, while exciting and rewarding, also means a relentless day after day grind of long hours from early morning until late at night. Often we skip lunch and dinner and so, I often rely on Wate-On Emulsions and Wate-On Tablets, as meal-time supplements and for their source of weight sustaining calories. All forms of pleasant tasting Wate-On are super concentrated with calories, vitamins, minerals, energy elements and other body building nutrients. So, if you are thin, skinny and underweight because of poor appetite or poor eating habits, ask your doctor about the value of Wate-On for you. It could just be that maybe the boys

won't be calling you 'skinny' any more."

TRUE BEAUTY INCLUDES A FULL FIGURE

An attractive feminine figure is a movie star's main requisite. It's the man's way of judging a woman. An undernourished looking body with no flowing figure-line may spell oblivion to a popular social life . . . and may now be unnecessary. Clinical tests have proved the value of Wate-On as a food supplement for underweights in normal health whose skinny-ness has been diagnosed as not due to disease. Taken as directed, Wate-On can supply extra calories needed to add attractive pounds and inches and help get rid of that thin and skinny appearance.

How WATE-ON Helps Put Pounds and Inches On Skinny Figures When Underweight Is Diagnosed As Due To Poor Eating Habits

It's truly amazing how many calories plus essential vitamins, bloodbuilding iron, minerals, body and tissue building nutrients . . . plus sources for quick energy. . . have been expertly compounded all in-one into Wate-On. And Wate-On is scientifically prepared to be pleasant to take yet readily digested and used by the normal system.

Eat weight maintaining meals and get plenty of rest. Then practically all of Wate-On's calories will be used to put on pounds and inches of healthy weight. Cheeks, hips, bust-line, arms, legs and thin skinny figures fill out all over depending on how much dietary intake is in excess of expended energy and on your own individual weight-gaining rate. So don't be skinny. Ask your doctor and if he says you are in normal health but skinny because of poor eating habits then Wate-On is for you! If underweight is due to disease, take Wate-On only under direction of your doctor.

WATE-ON is Offered in These Easy, Fast-Working, Guaranteed Forms

If the very first bottle or box of Wate-On you try doesn't satisfy, return to store where obtained for purchase price refund. For faster and more sure weight gains, a body building plan and high calorie menu suggestions are included in the Wate-On booklet given with every purchase. Before any weight building diet is undertaken, it is common sense to consult your doctor.

OR MONEY BACK

AT DRUG STORES EVERYWHERE

Fashion Industry

:): Key Point #3

- We mindlessly marinate in this Toxic Media environment.
- Cultivation Theory- the longer you spend staring at the simulacra the more you just assume it is reality's default setting.
- Wake up.

:):

Both AN and BN are more commonly seen in females with estimates of male-to-female ratio ranging from 1:6 to 1:10

Eating Disorders

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

Reprinted by New England

• DSM-IV Criteria for Anorexia Nervosa

- A. Refusal to maintain body weight at or above a minimally normal weight for age and height (eg, weight loss leading to maintenance of body weight less than 85% of that expected or failure to make expected weight gain during period of growth, leading to body weight less than 85% of that expected).
- B. Intense fear of gaining weight or becoming fat, even though underweight.
- C. Disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or denial of the seriousness of the current low body weight.
- D. In postmenarchal females, amenorrhea ie, the absence of at least three consecutive cycles. (A woman is considered to have amenorrhea if her periods occur only following hormone, eg, estrogen administration.)
- 1. Specify type:
 - Restricting Type: During the current episode of anorexia nervosa, the person has not regularly engaged in binge-eating or purging behavior (ie, self-induced vomiting or the misuse of laxatives, diuretics, or enemas).
 - **Binge-Eating/Purging Type:** During the current episode of anorexia nervosa, the person has regularly engaged in binge-eating or purging behavior (ie, self-induced vomiting or the misuse of laxatives, diuretics, or enemas).

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

DSM-IV Criteria for Bulimia Nervosa

- A. Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following:(1) Eating, in a discrete period of time (eg, within any 2-hour period), an amount of food that is definitely larger than most people would eat during a similar period of time and under similar circumstances.(2) A sense of lack of control over eating during the episode (eg, a feeling that one cannot stop eating or control what or how much one is eating).
- B. Recurrent inappropriate compensatory behavior in order to prevent weight gain, such as self-induced vomiting; misuse of laxatives, diuretics, enemas or other medications; fasting or excessive exercise.
- C. The binge eating and inappropriate compensatory behaviors both occur, on average, at least twice a week for 3 months.
- D. Self-evaluation is unduly influenced by body shape and weight.
- E. The disturbance does not occur exclusively during episodes of anorexia nervosa.

Specify type:

- Purging type: During the current episode of bulimia nervosa, the person has regularly engaged in self-induced vomiting or the misuse of laxatives, diuretics or enemas.
- Nonpurging type: During the current episode of bulimia nervosa, the person has used inappropriate compensatory behaviors, such as fasting or excessive exercise, but has not regularly engaged in self-induced vomiting or the misuse of laxatives, diuretics or enemas.

:): Prevalence

- Eating disorders have been reported in up to 4% of adolescents and young adults.
- Up to 50% of patients with AN develop bulimic symptoms, and some patients who are initially bulimic develop anorexic symptoms
- The most common age of onset for AN is the midteens although in 5% of the patients, the onset of the disorder is in the early twenties. The onset of BN is usually in adolescence but may be as late as early adulthood.

• Gender Prevalence:

 Both AN and BN are more commonly seen in females with estimates of male-to-female ratio ranging from 1:6 to 1:10

Cultural Considerations

- Eating disorders are more frequent in industrialized societies, where there is an abundance of food and being thin, especially for females, is considered attractive.
- Eating disorders are most common in the United States, Canada, Europe, Australia, New Zealand and South Africa.
- The rates are increasing, especially in nonwestern countries like Japan and China, where women are exposed to cultural change and modernization.
- In the United States, eating disorders are common in young Hispanic, Native American and African-American women but the rates are still lower than in Caucasian women.
- Female athletes involved in running and gymnastics, ballet dancers, male body builders and wrestlers are also at increased risk.

DSM Factors

- High levels of hostility, chaos, and isolation and low levels of nurturance and empathy are reported in families of children presenting with eating disorders.
- Anorexia has been formulated as a reaction to demands on adolescents to behave more independently or to respond to societal pressures to be slender.
- AN patients are usually high achievers. Many experience their bodies to be under the control of their parents.
- Self-starvation may be an effort to gain validation as a unique individual.
- Patients with BN have been described as having difficulties with impulse regulation.

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

Less at Risk

:): Obesity

- Considered by U.S. Surgeon General to be the most pressing health problem today
- Obesity can lead to increased risk for
 - Hypertension
 - Cardiovascular disease
 - Diabetes
 - Sleep apnea
- Tendency may be inherited

Sex Sells?

- "Sex Sells"
- •by <u>Lisa Wade</u>, Mar 2, 2009, at 02:24 am

That's the refrain anyway. But *whose* sex is sold? And to who? If it was simply that sex sold, we'd see men and women equally sexually objectified in popular culture. Instead, we see, primarily, women sold to (presumably heterosexual) men. So what are we selling, exactly, if not "sex" We're selling men's sexual subjectivity and women as a sex object. That is, the idea that men's desires are centrally important and meaningful, and women's are not (because women are the object to men's subjectivity).

That women's object status and men's subjectivity is sold to women in women's magazines (for example, Cosmo and Glamour always feature scantily clad women on the cover) in no way undermines the idea that men's sexual subjectivity is being sold. It's just that it's being sold to *all of us*.

WHATEVER YOUR PLANS, THEY PROBABLY DON'T INCLUDE TIRE TROUBLE.

Let Firestone put the 40,000 mile Steel Radial 500 between you and tire trouble.

The people tire people

estone

Alle CONDITIONING ECHNICAL INSTITUTE

HOTCIE

COO

CON MARCATO LA PASTA FATTA IN CASA È TORNATA DI MODA.

Contattaci per conoscere il punto vendita più vicino:

:):

What must one do to Minnie to make her an acceptable

fashion icon? Starve her down to a stick figure, apparently.

PERFECT ONE

Shapes, smooths & supports...with even more oomph!

shop now

weeknights at 10:30pm

ACCORDING

:):

What are the dangers of magazine covers like these?

NIEMEYER

ESTILO

11.04

-BASS

UPGRADE

Contrast Effect

- when partners view pictures of idealized individuals (genetically rare, plastic surgery enhanced photoshopped simulacra) they rate their own partners less positively.
- In an even more disturbing study, men reported lower levels of LOVE and COMMITMENT to their current partners after viewing Playboy centerfolds

Sexual Motivation

Sex

- a physiologically based motive (testosterone, limbic system, pheromones)
- but it is more affected by learning and values
 Physiological Imagined

:): 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?"

- Sexual motivation/pleasure was designed to help our species to procreate
- Psychological Evolutionary Trait
 - Similar to pleasures of eating
 - Similar to pain
 - Similar to loneliness
:): Sexual Motivation

I. Biological Influences

- Sexual maturity: Adolescents
- Sex Hormones: testosterone (Male sex hormone)
- Sexual Orientation
 - heterosexual; sexual desire for opposite sex
 - bisexual; sexual desire for both sexes
 - Homosexual; sexual desire for person of same sex

:): Sexual Motivation

II. Psychological Influences

- Exposure to stimulating conditions
- Sexual fantasies

:): Sexual Motivation

III Social-cultural influences

- Family and society
- Religious and personal value
- Cultural expectations

Sexual Response Cycle (sorry no pictures on this slide!) Masters and Johnson

- Excitement phase -sexual stimulation and arousal (blood begins to enter erectile structures)
- Plateau-leveling off in arousal (respiration, heart rate, blood pressure)/ erectile structures have fully engorged.

Sexual Response Cycle (sorry no pictures on this slide!) 3. Orgasm phase - shortest phase-

characterized muscle contractions, ejaculation and intense pleasurable experience

4. Resolution phase – completion of the cycle. Blood pressure, heart rate, muscle tension drops quickly.

 Refractory period – (most men) period of time following orgasm when a person is physically unable to become aroused to additional orgasm



Origins of Sexual Orientation

Sexual orientation -- sexual attraction Heterosexual – other sex Homosexual – same sex Homosexuality is more likely based on biological factors like differing brain centers, genetics, and parental hormone exposure rather than environmental factors. (APA)

OA 356-358

Summarize

- 1. Same-sex attraction in animals
- 2. The brain and sexual orientation
- 3. Genes and sexual orientation
- 4. Prenatal hormones and sexual orientation

Differences

- Compared to men women's sexuality is much more fluid (sexual plasticity) and changing
- In men high sex drive is associated with increased attraction to women
- In women a high sex drive is associated with increased attraction to both men and women.
- Statistically homosexual men tend to have difficult time maintaining relationships than homosexual women.

Animal Homosexuality

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



Wendell and Cass

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



Commissure Anterior Hypothalamus

Anterior

:): Look at your hands

 Is your index finger longer than your ring finger?

Genes & Sexual Orientation

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

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

:): Hormones & Sexual Orientation

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

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



:):

Changing Attitudes

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



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.





:): OA

Read pages 352-354

- American teens have lower rate of contraceptive use higher rate of teen pregnancy and abortion. Why?
- 2. What are some ways to prevent the spread of STIs?

Adolescent Sexuality

Dangers include:

- Sexually transmitted diseases
- Teen pregnancy
- Ignorance
- pregnancy
- Lack of communication
- Guilt related to sexual activity
- Alcohol use
- Mass media norms