



Hunger and Motivation

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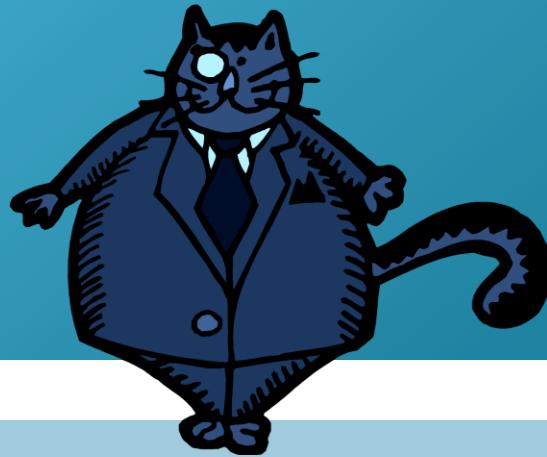
Two kinds...

Physiological & Psychological



(Outer & Inner)

Physiological



Physiological Motivation

When blood glucose is low, the stomach, the intestines, and the liver send signals to the brain which will then motivate you to eat.

➤ **Hypothalamus:** Lateral & Ventromedial

→ Lateral: located along the sides of the hypothalamus; brings hunger. If destroyed, organism will not eat.

→ Ventromedial: located near the middle of the hypothalamus; depresses hunger. If destroyed, organism processes food more rapidly.

➤ Involves biological, emotional, social, and cognitive forces

➤ Stress: Can stimulate or decrease hunger

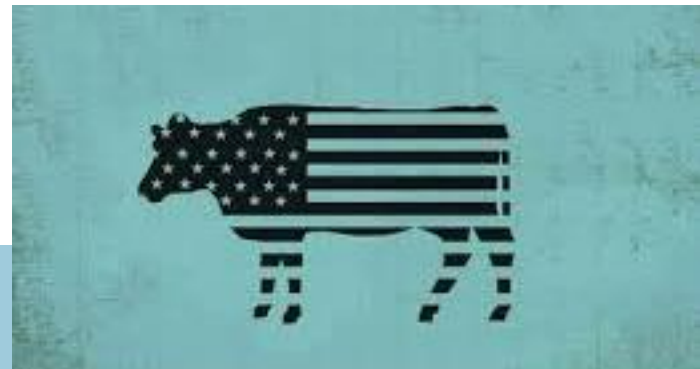
➤ Cannon & Washburn: Hungry when our stomach contracts together



Hormones

- **Insulin** - Hormone secreted by pancreas—controls blood glucose.
- **Leptin** - Protein secreted by adipose tissue / fat cells—when abundant, this causes brain to increase metabolism and decrease hunger
- **Orexin** — Hunger triggering hormones secreted by hypothalamus
- **Ghrelin** — Hormone secreted by an empty stomach — sends trigger messages to the brain
- **PYY** — Digestive tract hormones - sends no hunger messages to the brain

Basal Metabolic Rate (BMR) — the body's resting rate of energy expenditure



Continued..

➤ Set Point:

↳ Gains weight → Appetite decreases/uses more energy

↳ Loses weight → Appetite increases/uses less energy

➤ Basal Metabolic Rate:

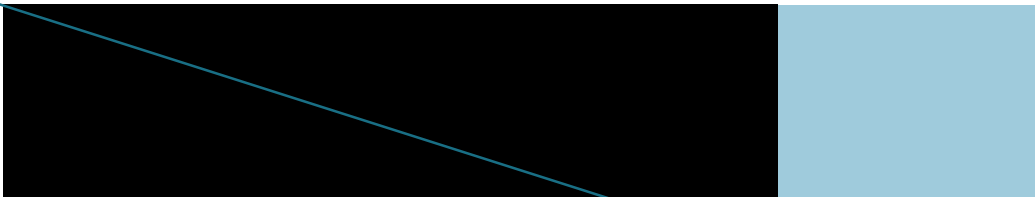
↳ Person at complete rest uses energy

➤ People have own control of physiological readiness for hunger

↳ Food that's taken into the body

↳ Too much sugar takes away focus from learning

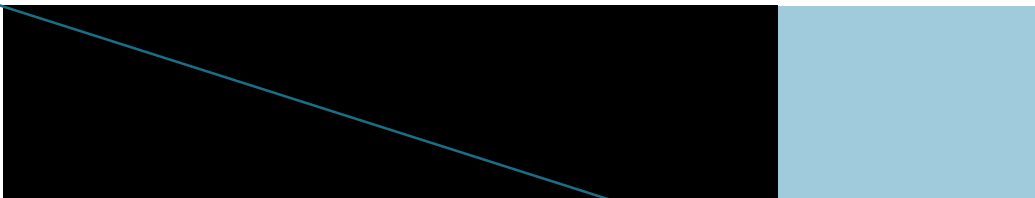
↳ Sleeping schedule



➤ We tend to eat more when we are exposed to certain emotions or to tasty foods.

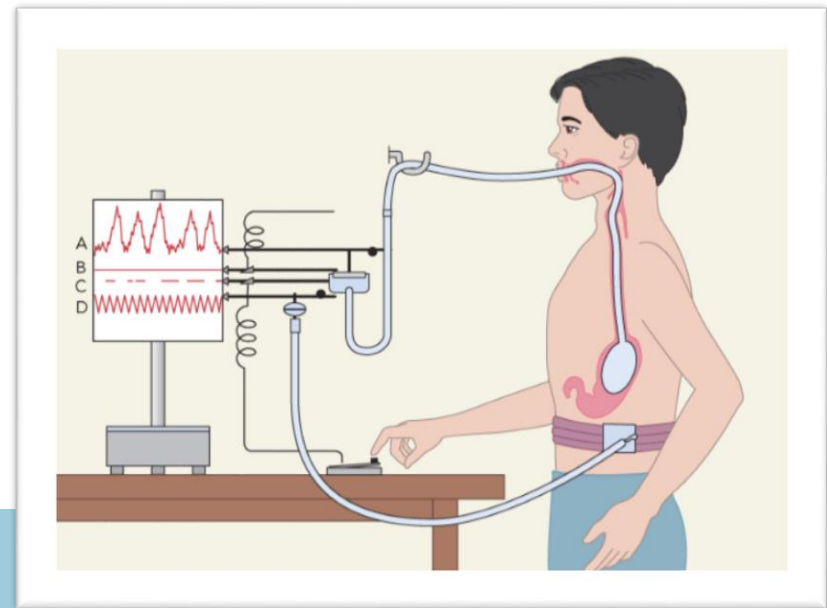
➤ Hunger's inner push primarily originates not from the stomach's contractions but from variations in body chemistry.

→ Example: we are likely to feel hungry when our glucose levels are low or when ghrelin is secreted by an empty stomach.



Washburn and The Stomach Contractions

A. L. Washburn intentionally swallowed a balloon to measure stomach contractions. They inflated the balloon in his stomach and each time he felt hungry, he would press a button. This proved that each time he was having a stomach contraction, he would feel hungry. However, one would still feel hungry even if they had their stomachs removed...



Psychological



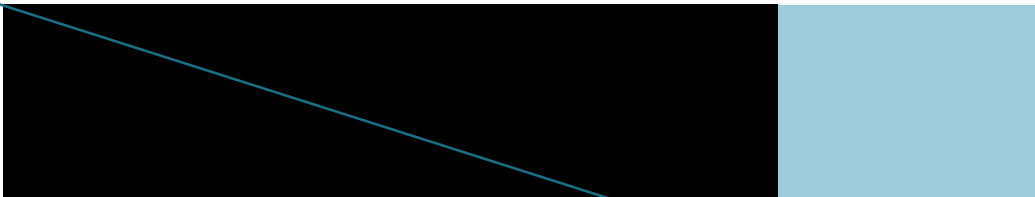
Psychological Motivation

➤ Body Chemistry and the Environment:

➤ When one feels tense or depressed, they tend to crave starchy, carbohydrate-loaded food. This is because carbs help boost serotonin levels, calming the body.

➤ Culture:

➤ Culture effects taste. For example: Bedouins eat the eyes from camels, while most North Americans will find this repulsive. Also, North Americans & Europeans do not eat dog, rat, or horse meat whilst other countries do.



Hunger Drive & The Psychological Problem

Disorders stemming usually from feelings of low self-esteem or depression.

Anorexia Nervosa – Dieting to the point of starvation, but still feeling fat, they will continue to starve themselves.

Bulimia – Periods of overeating then purging/starving/fasting/etc.

Obesity – Too much body fat, not to be confused with overweight.



Sources

- Hunger Motivation. (n.d.). *Hunger Motivation*. Retrieved December 11, 2013, from http://www.apppsychology.com/Book/Motivation/hunger_motivation.htm
- Hara, T. (n.d.). Hunger and Eating. *Hunger and Eating*. Retrieved December 11, 2013, from <http://www.csun.edu/~vcpsy00h/students/hunger.htm>
- Motivation. (n.d.). *Sparknotes*. Retrieved December 11, 2013, from <http://www.sparknotes.com/psychology/psych101>

0 Myers, David G. "Psychology, Eighth Edition- Content." Psychology, Eighth Edition - Content. N.p., 2006. Web. 11 Dec. 2013.

"The Physiology of Hunger - The Neuron" The Physiology of Hunger - The Neuron.

Advanced Placement Psychology, 15 Oct. 2009. Web. 11 Dec. 2013.

