# Motivation & Emotion, Stress

## Motivation

- Theories of Motivation
- Motivation: Hunger & Thirst
- Motivation: Sex
- Motivation: Affiliation
- Motivation: Achievement & Work
- Social Conflict Situations
- Sources of Motivation

## Motivation

• <u>Motivation</u>: need or desire that energizes and directs behavior

### • Instinct/Evolutionary Theory

- Instinct: fixed-action pattern which is unlearned and found throughout a species
- Biologically, we are predisposed to complete certain behaviors, therefore motivated by biological predispositions

### Drive-Reduction Theory

- Need: deficit of a physiological necessity
- <u>Drive</u>: motivated state caused by tension
- Primary Drive
  - from innate, biological needs
  - Secondary Drive
    - from learned, conditioned needs
- Homeostasis: maintain balanced or constant internal body state; regulates body chemistry
  - Homeostasis is maintained by reducing drives
- "Push" factors

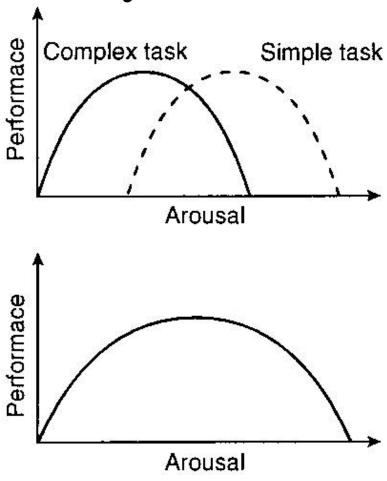
#### Incentive Theory

- Incentive: positive or negative environmental stimulus that motivates behavior
- Positive or negative external stimuli lure or repel us
- "Pull" factors

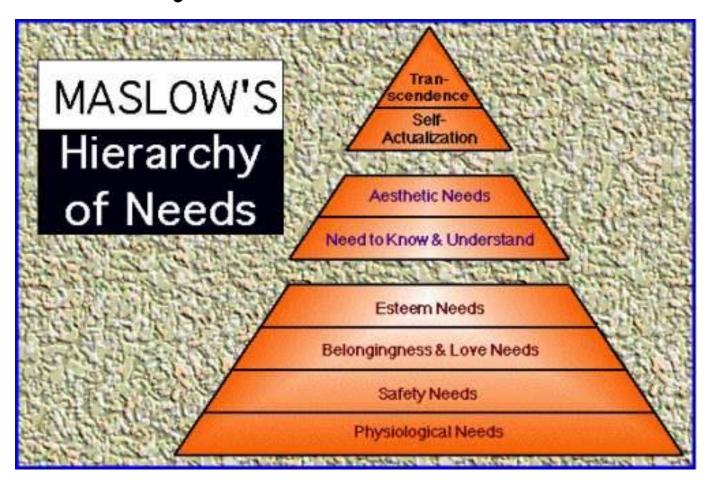
### Arousal Theory

- We each have different optimal levels of arousal, and we seek to fulfill our needs to function at those levels
- Yerkes-Dodson Law: different tasks require different levels of arousal for optimal performance
  - Moderate tasks require moderate arousal
  - Easier tasks require higher arousal
  - More difficult tasks require lower arousal for optimal performance

#### Arousal Theory



- Developed by Abraham Maslow
- We are motivated to meet our needs in ascending order of the pyramid, not moving on to the next level until we have met those more basic needs
- Includes the deficiency needs and the growth needs



- Deficiency Needs
  - if not met, results in anxiety
  - Physiological
    - biological necessities
  - Safety
    - need for security; orderly & predictable world
  - Love & Belongingness
    - need to care about and be cared about by others
  - Esteem
    - need to respect and be respected by others

- Growth Needs
  - drives personal growth & improvement
  - Cognitive
    - need to increase knowledge and understanding
  - Aesthetic
    - need to find beauty in the world
  - Self-Actualization
    - need to reach ultimate potential and make the most of one's abilities

- Hypothalamus
  - Lateral Hypothalamus
    - "turns on" hunger; produces Orexin
  - Ventromedial Hypothalamus
    - "turns off" hunger; affected by Leptin, which is produced in fat cells
- <u>Set Point</u>: point at which an individual's
  - "weight thermostat" is set
    - Metabolic rates will fluctuate to maintain this point
    - Set point determined by genes

- Blood Glucose Level
  - There is an inverse relationship between blood glucose level and hunger
  - When blood sugar increases, insulin is secreted from the pancreas to decrease blood glucose level
  - Regulation of blood glucose level is part of homeostasis

#### Physiological Influences

#### - Hormones

- Insulin
  - Secreted by pancreas, causes tissues to use up, store sugar
  - Released when blood glucose level is high
  - Stimulates hunger

#### Glucagon

- Secreted by pancreas
- Causes glycogen stores from liver to be converted to glucose and then into the bloodstream
- Released when blood glucose level is low and fight-orflight situations

- Hormones
  - Orexin
    - Released by lateral hypothalamus
    - Stimulates hunger
  - Ghrelin
    - Hunger-triggering hormone secreted by an empty stomach
    - Sends messages to the brain saying "I'm hungry"

- Hormones
  - Leptin
    - Secreted by fat cells
    - Decreases feelings of hunger
  - PYY
    - Secreted by digestive tract
    - Sends messages to the brain saying "I'm full"

- Metabolism: chemical reactions taking place in the body to maintain life
  - Affected by activity of the thyroid
  - <u>Basal Metabolic Rate</u>: amount of energy expended while at rest

### Psychological Influences

- Timing of meals may help determine when someone will start to feel hungry
- Taste Preferences
  - Taste preferences for sweet and salty tend to be universal
  - Learning, experience, and culture determine more personalized preferences

#### Eating Disorders

- Anorexia Nervosa
  - Significantly underweight (15% less than normal)
  - Obsessed with losing weight
- Bulimia Nervosa
  - Alternate between bingeing and purging (or using laxatives, fasting, or excessive exercise)
  - Weight remains within or above normal ranges
  - Different than binge-eating disorder
- Obesity
  - Body Mass Index of 30 or more

# Motivation: Thirst

- Lateral hypothalamus is responsible for "turning on" thirst
- Mouth dryness, fluid content of cells, and volume of blood stimulate thirst
- Hypothalamus stimulates pituitary gland to produce antidiuretic hormone (ADH) to reabsorb water into the kidneys and decrease urination
- External stimuli also influence thirst

### Sexual Response Cycle

- Excitement
  - sexual arousal
- Plateau
  - increased breathing rate, muscle tension, heart rate and blood pressure
- Orgasm
  - muscle contractions, and ejaculation in males
- Resolution
  - blood leaves genitals and sexual arousal lessons
  - refractory period in males

#### Hormones

- Estrogen
  - the primary hormone involved in sexual functioning of females
- Testosterone
  - the primary hormone involved in sexual functioning of males

#### Sexual Orientation

- direction of an individual's sexual interest
- Heterosexuality: tendency to direct sexual desire toward an individual of the opposite sex
- Bisexuality: tendency to direct sexual desire towards individuals of both sexes
- Homosexuality: tendency to direct sexual desire toward an individual of the same sex

#### Contributors to Sexual Orientation

- <u>Fraternal Birth-Order Effect</u>: the more older brothers a man has, the greater the probability he will have a homosexual orientation
- Differences in Brain Structures (hypothalamus)
- Genetic variations have been observed and then manipulated in other species (fruit flies)
- Prenatal hormone exposure during certain gestational stages
- Same-sex relationships have been observed in other species in nature (swans, penguins...)

# Motivation: Affiliation

- Humans have a need to be with others
- Evolutionary psychologists argue the adaptive nature of affiliation
- Correlation between having friends and being happy; correlation between being happy and being healthy
- Ostracism: shunning or excluding one from a group
  - Perceived by the brain as a painful stimulus

## Motivation: Achievement

- Desire for significant accomplishment
- Psychologists use the Thematic Apperception Test (TAT) to measure achievement motivation
- Those with high achievement motivation, if given the choice, would choose tasks that are challenging but not beyond their ability level

### Industrial-Organizational Psychology

- study and application of psychological principles in the workplace
- Personnel Psychology
  - selects and evaluates employees
- Organizational Psychology
  - examines achievement motivation in the workplace, satisfaction & productivity

### Management Styles

- Task Leadership
  - experts in organizing, setting goals & standards
- Social Leadership
  - experts at mediating conflicts, delegating responsibility, and getting employees to participate in the process

### Management Beliefs

- -Theory X
  - believe that employees are lazy and only motivated by external rewards
- -Theory Y
  - believe that employees are intrinsically motivated

### Employee Engagement

- Engaged
  - feel a passion and connection to job
- Not Engaged
  - don't care about job, "just a job"
- Actively Disengaged
  - acting out the unhappiness they feel in their current position

# Social Conflict Situations

- Approach-Approach
  - choosing between two desirable options
- Avoidance-Avoidance
  - choosing between two undesirable options
- Approach-Avoidance
  - situation in which there is both a desirable and undesirable aspect
- Multiple Approach-Avoidance
  - choosing between multiple options which have both desirable and undesirable qualities

# Source of Motivation

#### • Intrinsic vs. Extrinsic Motivation

- Intrinsic: motivated by internal factors, satisfaction, accomplishment, pride
- Extrinsic: motivated by external factors, especially rewards and punishments
- Overjustification Effect: occurs when an external incentive such as money or prizes decreases a person's intrinsic motivation to perform a task

### **Emotion**

- Theories of Emotion
- Physiology of Emotion
- Expression of Emotion
- Experience of Emotion

# Theories of Emotion

#### James-Lange Theory

- Developed by William James & Carl Lange
- Physiological arousal *causes* emotion

# Theories of Emotion

#### Cannon-Bard Theory

- Developed by Walter Cannon and Philip Bard
- Arousal and emotion happen *simultaneously*

### Theories of Emotion

#### Opponent-Process Theory

 Opposing emotion counters the primary emotion, until the opposing emotion becomes stronger than the primary emotion

### Theories of Emotion

### Schachter-Singer/ Two-Factor Theory

- Stanley Schachter and Jerome Singer
- Arousal and cognitive evaluation of the situation *cause* emotion
- <u>Spillover Effect</u>: when arousal from one situation is still present going into another situation, the interpretation of the new situation can be affected

# Physiology of Emotion

- When aroused, Sympathetic NS activity causes fight-or-flight response
- Liver increases blood glucose level; energy for increased heart rate & blood pressure
- Parasympathetic NS calms the body after the emotion has passed

# Physiology of Emotion

- "Low road" is taken when information is processed in amygdala directly after thalamus processing. "High road" is taken when stimulation is first routed to the cerebral cortex for thoughtful processing before the amygdala.
- Amygdala responsible for emotions
- Right hemisphere dominant for negative emotions, left dominant for positive emotions

## **Expression of Emotion**

#### Nonverbal Communication

- Facial Expression
  - Eyes
  - Mouth
- Body Language
- Explicit Acts
- Females are better at identifying facial expressions or interpreting others emotions

# **Expression of Emotion**

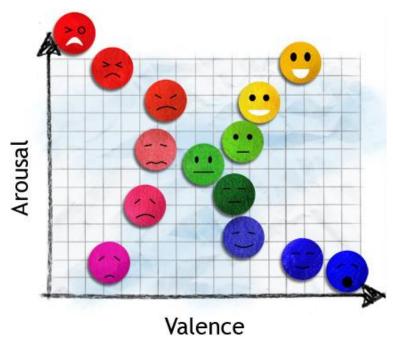
#### Culture

- Facial expressions for basic emotions are universal, even a blind child makes the same expressions, they are not learned
- Research by Paul Ekman shows facial expressions are universal, regardless of cultural upbringing
  - Culture determines how emotions are expressed
  - Display Rules
    - determine when and whether people of certain cultures display certain emotions

#### Effects of Nonverbal Expression

- <u>Facial Feedback Effect</u>: facial movement can influence emotional experience
- Behavior Feedback Effect: behavior can influence emotional experience

- Izard's 10 Basic Emotions
  - Contempt, Anger, Shame, Disgust, Joy, Fear,
    Sadness, Surprise, Guilt, Interest-Excitement
- Two Dimensions of Emotions
  - -Valence
    - positive or negative
  - -Arousal
    - high or low



#### Fear

- Adaptive Nature of Fear
- Learning of Fear
  - Classical & Operant Conditioning
  - Observational Learning
- Amygdala

#### Anger

- Aggression
  - behavior intended to cause harm or pain
  - <u>Hostile Aggression</u>: aimed at inflicting pain or injury
  - <u>Instrumental Aggression</u>: harm inflicted as a means towards a goal, not the intended result
- Catharsis Hypothesis: releasing aggressive energy relieves aggressive urges
  - Not supported empirically

#### Joy (Happiness)

- Positive correlation with quality of health
- Subjective Well-Being: self-perceived happiness or satisfaction with life; used with objective measures to assess quality of life
- <u>Feel-Good, Do-Good Phenomenon</u>: tendency to be helpful when already in a good mood

#### Joy (Happiness)

- Adaptation & Comparison
  - <u>Adaptation-Level Phenomenon</u>: tendency to form judgments relative to a neutral level defined by our prior experience
  - <u>Relative Deprivation</u>: perception that one is worse off relative to those with whom one compares oneself

### Stress & Health

- Stress & Stressors
- Personal Qualities & Stress
- Effects of Stress
- Coping with Stress

#### Stress & Stressors

- <u>Stress</u>: process by which we appraise and respond to environmental threats & challenges
- <u>Stressors</u>: threatening stimuli or events
  - Catastrophes
    - unpredictable, large-scale events
  - Significant Life Changes
    - change in life circumstances
  - Daily Hassles
    - everyday annoyances

#### Stress & Stressors

### Hans Selye's General Adaptation Syndrome

- Alarm Reaction
  - Sympathetic NS activity, fight-or-flight response
- Resistance
  - Temperature, heart rate, blood pressure, respiration remain high while hormone secretion rises
- Exhaustion
  - Result of continued stress, increased vulnerability to illnesses or death

## Personal Qualities & Stress

#### Optimism vs. Pessimism

- Optimism
  - Positive view of the world
  - Less affected by stressors
- Pessimism
  - Negative view of the world
  - More affected by stressors

## Personal Qualities & Stress

#### Personality Type

- -Type A
  - Hostile, angry, impatient, competitive
  - Higher risk of Coronary Heart Disease
- -Type B
  - Laid-back, relaxed, easygoing
  - Lower risk of Coronary Heart Disease

### Effects of Stress

- Risk for Coronary Heart Disease increases (clogging of vessels which nourish the heart)
- Immune system may underreact or overreact to a potential threat, causing further problems in fighting infections
  - -Symptoms of AIDS progress quicker
  - Risk of cancer is higher after depression

# Coping with Stress

#### Coping Mechanisms

- Problem-Focused Coping: deal with cause of the problem directly
- Emotion-Focused Coping: moderate or eliminate negative emotions
- Acquire some level of control
- Aerobic Exercise, Maintain a Healthy Lifestyle
- Relaxation, Meditation
- Social Support
- Spirituality, Faith, or Altruism