

# PSYCHOLOGY

## THE BASIC PRINCIPLES OF PSYCHOLOGY FOR INTRODUCTORY COURSES

### INTRODUCTION

- **DEFINITION:** Scientific study of behavior and mental processes and how they are affected by an organism's physical and mental state and external environment
- **GOALS:** Describe, understand, predict and control (or modify) behavior or mental processes
- **PSYCHOLOGY AS A SCIENCE:**
  1. **Descriptive studies** - describe but not explain
    - a. **Case history** - description of one individual
    - b. **Observation**
      - i. **Naturalistic** - natural environment
      - ii. **Laboratory** - setting controlled by researcher
    - c. **Surveys** - questionnaires and interviews
    - d. **Tests** -
      - i. **Reliability** - used to measure whether individual differences in test scores are due to actual differences in the characteristic being measured or due to chance errors and fluctuations.
      - ii. **Validity** - refers to the extent to which a test measures what it purports. The **validity** of a test must be empirically established - relating the test to particular criterion that it claims to measure.
  2. **Correlational Studies** - strength of relationships between variables, does not show causation
  3. **Experiment** - researcher controls variable(s) to discover its effect on other variables
    - a. **Independent variable** - manipulated/controlled by researcher
    - b. **Dependent variable** - measured by researcher (data)
    - c. **Experimental and control groups** - only experimental group exposed to independent variable, otherwise treated the same
    - d. Change in dependent variable caused by independent variable, since all else remained the same
    - e. **Confounding Variable** - an observed effect that may be due to an intervening third variable between the dependent and independent variables. The **confounding variable** must be systematically controlled or, if possible, eliminated, otherwise obtained results are invalidated.
    - f. **Inferred Variable** - a non-observable variable that is inferred as the mediator between two observed events. For instance, inferring the experience of "fear" from certain measurable physiological anxiety responses. It is frequently difficult to avoid circular explanations in positing an inferred variable.
    - g. **Subject Variable** - a condition that is part of the subject's make-up and cannot be assigned randomly; e.g., sex, height, hair-color etc. Because of their non-randomizability, causal conclusions cannot be derived from **subject variable** experiments.
    - h. **Non-Subject Variable** - a characteristic that is not part of a subject's make-up, and thus can be randomly assigned; e.g., whether the subject received a certain drug or a placebo.

### LEARNING

*Change in behavior as a result of experience*

- **CLASSICAL CONDITIONING**
  1. **Pavlov's studies**
    - a. Unconditioned stimulus (UCS) - food - elicits an unconditioned response (UCR) - salivation
    - b. Pair neutral stimulus - tone - with UCS - food
    - c. Neutral stimulus becomes conditioned stimulus (CS) - tone - which elicits conditioned response CR - salivation
  2. Principles of classical conditioning
    - a. **Extinction** - when the CS is not presented with the UCS, it will diminish
    - b. **Stimulus generalization** - similar stimuli may elicit the same response as the CS

### LEARNING CONTINUED

- c. **Stimulus discrimination** - different responses are made to stimuli which are similar to the CS
- **OPERANT CONDITIONING**
  1. **Reinforcer (reward)** - increases response probability
    - a. **Positive reinforcement** - response followed by presentation of reinforcing stimulus
    - b. **Negative reinforcement** - response followed by removal of unpleasant stimulus
  2. **Punishment** - stimulus that follows response decreases probability response will occur
  3. **Principles of Operant Conditioning**
    - a. **Extinction** - response no longer reinforced
    - b. **Stimulus generalization** - response will occur to similar stimuli
    - c. **Stimulus discrimination** - responses do not occur to different stimuli
    - d. **Timing of reinforcers** - the sooner a reinforcer or punisher follows an action, the greater its effect
    - e. **Schedules of reinforcement**
      - i. **Continuous reinforcement** - a particular response is always reinforced
      - ii. **Intermittent reinforcement** - reinforcing only some responses
        - (a) **fixed ratio (FR)** - reinforcement after a fixed number of responses, high rates of responding
        - (b) **variable ratio (VR)** - reinforcement after average number of responses, very high, steady rates of responding
        - (c) **fixed interval (FI)** - reinforcement after fixed amount of time, scalloped response pattern
        - (d) **variable interval (VI)** - reinforcement after a variable amount of time, low, steady rate of response
    - f. **Shaping** - reinforce successive approximations to the desired response
    - g. **Chaining** - a method of connecting responses into a sequence of behaviors. At the end of the chain there must always be a *reinforcer*. The chain is constructed by beginning at the end and working backward; all behaviors have to be previously conditioned into the organism's repertoire.
  4. **Cognitive Behavior Modification**

The principles of learning theory are applied to alter undesirable thoughts, rather than only observable behaviors.

    - a. **Social Learning Theory (Bandura)** four processes which influence learning are:
      - i. Attention
      - ii. Memory
      - iii. Behavior
      - iv. Motivation
    - b. Specific cognitive processes that are recognized:
      - i. Attribution
      - ii. Expectancy
      - iii. Logical
      - iv. Verbal
      - v. Imaginable
    - c. **Rational emotive therapy (Ellis)** considers the central core of dysfunctional behavior to be due to irrational beliefs. The therapy focuses on the alteration of these irrational beliefs.
    - d. **Problem-solving therapy** - focuses on enhancing the patient's ability to make decisions and solve problems in stressful or difficult situations.
    - e. **Paradoxical intervention** - patients are instructed to purposely perform undesirable symptomatic behaviors on command in an effort to demonstrate their ability to gain control over these behaviors.
    - f. **Attribution therapy** - attempts to facilitate the patient's ability to re-attribute undesirable feelings and symptoms to something less threatening and more acceptable.

### BIOLOGICAL BASES OF PSYCHOLOGY

- **STRUCTURE OF THE NERVOUS SYSTEM**
  1. **Central** - brain and spinal cord
  2. **Peripheral** - sensory and motor nerves which transmit information
    - a. **Somatic** - control skeletal muscles
    - b. **Autonomic** - regulates internal organs and glands
      - i. **Parasympathetic** - conserves energy
      - ii. **Sympathetic** - expends energy
- **COMMUNICATION WITHIN NERVOUS SYSTEM**
  1. **Neuron** - basic unit of nervous system
    - a. **cell body** - keeps neuron alive
    - b. **dendrites** - receive information from other neurons
    - c. **axons** - send information to other neurons
    - d. **myelin** - insulates axon to enable information to be transmitted faster
  2. **Communication between Neurons**
    - a. **Synapses** - gaps between neurons
    - b. Message travels through **axon** to **synaptic knob** on axon's tip
    - c. **Synaptic vesicles** open and release **neurotransmitter** into **synaptic gap**
    - d. **Neurotransmitter** fits into **receptor** sites on receiving **dendrite**, causing it to be more or less likely to fire
- **THE BRAIN**
  1. **Hindbrain**
    - a. Medulla, pons, reticular activating system, cerebellum
    - b. Responsible for reflexive, automatic behavior
  2. **Midbrain** - information conduit
  3. **Forebrain**
    - a. **Thalamus** - directs sensory messages
    - b. **Hypothalamus** - emotion and survival drives
    - c. **Pituitary gland** - controls many other endocrine glands
    - d. **Cerebral cortex**
      - i. **Occipital lobes** - vision
      - ii. **Parietal lobes** - sensory information
      - iii. **Temporal lobes** - process sounds
      - iv. **Frontal lobes** - motor movements
  4. **Two brain hemispheres**
    - a. Each one controls opposite side of body
    - b. Left hemisphere dominant for most people

### STRESS AND HEALTH

- **STRESS - EMOTIONAL AND PHYSICAL RESPONSES TO STIMULI**
  1. Caused by stimuli and the way those stimuli are perceived
  2. Biological reaction
    - a. Fight or flight - increase heart rate, breathing, tense muscles
    - b. Increased activity in the sympathetic nervous system
    - c. Adrenal glands secrete epinephrine (adrenalin) and norepinephrine
  3. Coping with stress
    - a. Reappraise situation
    - b. Maintain control over the stressful situation
- **PSYCHOLOGY AND ILLNESS**
  1. **Heart disease**
    - a. **Type A personalities** - hard-working, competitive, increased incidence of heart disease
    - b. **Type B personalities** - easy going
  2. **Cancer**
    - a. Exposure to carcinogens increases the risk
    - b. Psychological factors influence functioning of immune system
- **HEALTH AND SOCIAL RELATIONSHIPS**
  1. Friends - assisted coping
    - a. Emotional, cognitive and tangible support
    - b. Cultural differences in the value placed on friendships
  2. Friends as stress producers
    - a. Contagion effect - others can exaggerate stress
    - b. Friend under stress can increase your stress level
    - c. Burden of caring for others can increase stress

## SENSATION AND PERCEPTION

- **SENSATION** - Awareness of physical changes
- **MEASURING SENSATION**
  1. Absolute thresholds - detection of signal 50 percent of time
  2. **Difference thresholds (j.n.d. - just noticeable difference)**
    - a. Difference in sensation detectable 50 percent of time
    - b. **Weber's Law** - change necessary for j.n.d. is a proportion of original stimulus
- **THE EYE**
  1. Light enters through the cornea
  2. Lens focuses light on the retina
  3. Retina - at the back of the eyeball
    - a. **Rods** - respond to dim light
    - b. **Cones** - respond to color
    - c. **Fovea** - center of retina, contains only cones, site where vision is sharpest
- **THE EAR**
  1. **Outer ear** - collects sounds waves
  2. **Middle ear** - waves strike eardrum which passes them to three tiny bones which intensify the force of the vibrations
  3. **Inner ear** - contains receptor cells (hair cells) located within the cochlea which initiate nerve impulses which travel to the brain
- **TASTE**
  1. Four basic tastes - *salty, sour, bitter and sweet* - each associated with different receptors or taste buds
- **SMELL**
  1. Receptors in mucous membrane of nasal passage
- **SKIN SENSES**
  1. **Touch (pressure), warmth, cold and pain**
- **PERCEPTION** - organization and interpretation of sensations
  1. World seen as constant, although the sensations may change
  2. Needs, beliefs, emotions and expectations all influence perception

## LANGUAGE, THINKING AND INTELLIGENCE

- **LANGUAGE** - Rule-governed system of symbols used to represent and communicate information
  1. Understanding language
    - a. **Phonology** - knowledge of sounds
    - b. **Semantics** - knowledge of word meanings
    - c. **Syntax** - knowledge of grammatical structure
      - i. **Deep structure** - meaning
      - ii. **Surface structure** - organization of words
    - d. **Psycholinguistics** - the study of the ability to produce and understand language
  2. Acquiring language
    - a. Rules and strategies are innate
      - i. Basic timing and sequence of language development is similar across cultures
      - ii. Children learn the rules of their native language, (i.e., overgeneralization)
    - b. Particular language acquired is based on experience
  3. Language and thought - language has an impact on how easily we process information
- **THINKING**
  1. Using concepts - apply past experiences to present thoughts
    - a. Concept - a mental grouping of a set of objects or events on the basis of important common features
    - b. Must be learned through definition or example
    - c. Concepts aid in predicting and interpreting events and organizing experiences
  2. **Problem solving** - set of information used to achieve goal
    - a. **Strategies**
      - i. Define the problem

## QuickStudy

## LANGUAGE, THINKING AND INTELLIGENCE CONTINUED

- ii. Use **algorithms** (systematic methods guaranteed to produce a solution) or
  - iii. Use **heuristics** (a rule that may or may not produce a solution), (i.e., simplification, reasoning by analogy)
- b. **Insight** - sudden understanding of solution
- **INTELLIGENCE** - *capacity to acquire and use knowledge*
  1. Measuring intelligence
    - a. **Binet** - IQ tests - mental age (as determined by a test) divided by chronological age = IQ
    - b. **Wechsler** - tests include verbal, mathematical and nonverbal thinking skills
    - c. Average score is 100, scores describe a bell-shaped (normal) distribution
    - d. I.Q. (Intelligence Quotient) is computed by dividing a person's "mental age" by their "chronological age" and multiplying by one hundred; yielding the formula:  $IQ = (MA/CA) \times 100$
  2. Uses of IQ tests
    - a. As a predictor of school success
    - b. Concerns about being "culture fair"
  3. Nature of intelligence - one ability or many?
  4. Influence of the environment
    - a. **Heritability** - studies over a forty-year span have revealed 50 - 80 % genetic component to IQ. Consequently, the general conclusion seems to be that heredity has a substantial effect on IQ scores, with at least half the observed variation in IQ scores attributable to genetic differences.
    - b. Experience determines point within genetic range
  5. Extremes in intelligence
    - a. **Intellectually Challenged** - IQ below 70
      - i. **Biologically based** - Down's syndrome, fetal alcohol syndrome
      - ii. **Psychosocial** - disease, malnutrition, lack of intellectual stimulation
    - b. **Intellectually gifted** - skills on one or more intellectual domains

## MEMORY

### Ability to retain and retrieve information

- **INFORMATION PROCESSING THEORY**
  1. Information must be encoded to be processed by brain
    - a. **Storage** - retention of information
    - b. **Retrieval** - accessing information
  2. Three memory systems
    - a. **Sensory** - literal copy of information - held for 1-2 seconds
    - b. **Short-term**
      - i. Limited capacity (7 + or - 2 items)
      - ii. Information held for about 30 seconds; then it is forgotten or further encoded and placed in long-term memory
    - c. **Long-term**
      - i. Unlimited capacity
      - ii. Information stored and retrieved by category
  3. **Forgetting**
    - a. In **sensory memory** - through decay
    - b. In **short-term memory**
      - i. Limited capacity subject to "filling up"
      - ii. Can retain information through rehearsal
        - (a) Maintenance (rote) rehearsal
        - (b) Elaborative rehearsal - associating new with old information
    - c. In **long-term memory**
      - i. **Decay** - information fades if not used
      - ii. **Forgetting**
        - (a) **Interference** - similar items interfere
        - (b) **Motivated** - conscious or unconscious "hiding" a memory
        - (c) **Cue-dependent** - unable to gain access to the information
        - (d) **Zeigarnik effect** - interrupted, or incomplete tasks seem to be better remembered than completed tasks.
        - (e) **Non-verbal memory** - pictures are remembered significantly better than words; motor memory seems to be impervious to decay.

## SOCIAL PSYCHOLOGY

- **ROLES** - A social position governed by norms
  1. **Norms** - conventions by which we live
  2. **Zimbardo's Prison Study**
    - a. Students assigned to "guard" or "prisoner" roles
    - b. Student behavior reflected their assigned roles
  3. **Milgram's Obedience Study**
    - a. Participants thought they were part of an experiment in learning
    - b. "Teacher" was instructed to shock "learner" for wrong answer
    - c. Majority of "teachers" complied with the instructions to administer shock
- **SOCIAL COGNITION** - how the social environment influences thoughts, perception and belief
  1. **Attribution** - motivation to explain behavior
    - a. **Situational** - caused by the environment
    - b. **Dispositional** - caused by something within individual
    - c. **Fundamental attribution error** - overestimate dispositional and underestimate situational causes
    - d. **Self-serving bias** - use dispositional attributions for good behaviors and situational attributions to excuse our own behaviors
  2. **Stereotypes** - summary impressions when all members of a group share common traits
  3. **Attitude** - a relatively enduring opinion including both cognitive and emotional components
    - a. Attitudes and behavior influence each other
    - b. **Cognitive dissonance** - when an attitude and behavior conflict, we are motivated to make them consistent
  4. **Prejudice** - unjustified negative attitudes toward a group
- **CONFORMITY** - behavior that occurs as a result of real or imagined group pressure
- **OBEDIENCE** - following orders from an authority
- **INDIVIDUALS AND GROUPS**
  1. **Groupthink** - tendency for all group members to think alike and suppress dissent
  2. **Group Polarization** - tendency of a group to take a more extreme position than those of individual members
  3. **Responsibility**
    - a. **Diffusion of responsibility** - avoidance
    - b. **Social loafing** - individual slows down to let the group shoulder the load
    - c. Bystander apathy will not occur when one
      - i. **Perceives** the need to help
      - ii. **Decides** to take responsibility
      - iii. **Weighs** the costs of helping
      - iv. **Knows** how to help
- **LOVE** - (Sternberg)
  1. Has three related components:
    - a. **Intimacy**
    - b. **Passion**
    - c. **Commitment**
  2. Depending on the combination of these elements, produces different dimensions in a relationship:
    - a. **Liking** - intimacy alone
    - b. **Companionate Love** - intimacy and commitment
    - c. **Empty Love** - commitment alone
    - d. **Fatuous Love** - passion and commitment
    - e. **Infatuation** - passion only
    - f. **Romantic Love** - intimacy and passion
    - g. **Consummate Love** - intimacy, passion, and commitment

## DEVELOPMENT

### DEFINITIONS

1. **Learning** - influence of experience (nurture)
2. **Maturation** - unfolding of biological patterns (nature)
3. **Critical Periods** - early development periods during which particular early experiences are essential
4. **Stages** - organization of behaviors and thoughts during particular early periods of development - defined by relatively abrupt change

### COGNITIVE DEVELOPMENT

1. **Piaget**
  - a. **Assimilation** - fit new information into what is known
  - b. **Accommodation** - change existing beliefs in response to new knowledge
  - c. Stages of development
    - i. **Sensory-motor stage (birth - 2)** - object permanence
    - ii. **Preoperational stage (2-7)** - use of symbols and language; egocentric; lack the principles of conservation
    - iii. **Concrete operational stage (7-11)** - understand conservation, identity, grounded in concrete experiences
    - iv. **Formal operations stage (12-adult)** - abstract reasoning
2. Language development - acquisition depends on biological readiness and experience

### SOCIAL DEVELOPMENT

1. Attachment - emotional tie between infant and caretaker (**Harlow's monkey studies**)
2. Sex typing - learning "masculine" or "feminine"
  - a. Identification with the same sex parent
  - b. Rewards and punishments for sex appropriate behavior
3. **Erikson's stages**
  - a. Trust Versus Mistrust: 0 - 2 years of age
  - b. Autonomy Versus Doubt and Shame: 2- 3 years of age
  - c. Initiative Versus Guilt: 3 - 6 years of age
  - d. Industry Versus Inferiority: 6 - 11 years of age

### MORAL DEVELOPMENT - Kohlberg Theory:

1. **Preconventional morality** - obey because ordered to or will be punished
2. **Conventional morality** - based on trust, loyalty or understanding social order
3. **Postconventional morality** - laws are situational and can be changed

### CHRONOLOGICAL DEVELOPMENT

1. **Newborn Child**
  - a. Reflexes - automatic behaviors, rooting, sucking, swallowing, startle, etc.
  - b. Vision - nearsighted, interested in novelty
  - c. Social skills
    - i. Smile at 4-6 weeks in response to faces
    - ii. Rhythmic "conversations"
2. **Adolescence**
  - a. **Biological development** - increased hormone production; sex organs mature; growth spurt
  - b. **Intellectual development** - formal operational (abstract reasoning), independence, questioning
3. **Aging**
  - a. **Transition Theories** - unanticipated, anticipated, nonevent, chronic hassle
  - b. **Major Milestones** - starting out, marriage or living alone, parenthood, empty nest, midlife crises, retirement, widowhood

## PERSONALITY

*Distinctive patterns of behavior, thoughts and emotions that characterize individual's patterns of adaptation*

### THE ORIGINS OF PERSONALITY

1. Biological and genetic influences
2. Experience - cultural and unique
3. Stability and change
  - a. Genetic characteristics relatively stable through life
  - b. Less active, hostile and impulsive with age
  - c. Personality changes as a result of life experiences

### FREUD

1. **Personality** consists of three parts
  - a. **Id** - basic biological urges; unconscious
  - b. **Ego** - gratifies urges within acceptable bounds; conscious
  - c. **Superego** - values and ideals of society; conscience

## QuickStudy

## PERSONALITY CONTINUED

2. **Psychosexual development**
  - a. **Oral stage (0-1)** - sucking, feeding, etc.
  - b. **Anal stage (2-3)** - defecation
  - c. **Phallic stage (3-5)** - sexual attraction to the opposite sex parent produces the Oedipus complex
  - d. **Latency period (5-puberty)** - sexual feelings forgotten; child concentrates on skill development
  - e. **Genital stage - adult** sexual relationships
3. **Anxiety** - unjustified fears resolved by ego through use of defense mechanisms
  - a. **Repression** - active exclusion of unconscious impulses from consciousness
  - b. **Projection** - attribute to others our thoughts and feelings
  - c. **Reaction formation** - behavior patterns opposite to our anxiety producing urges
  - d. **Displacement** - redirects anxiety producing behaviors to a more acceptable target
  - e. **Rationalization** - substitute "good" reasons for real reasons for behavior
4. **Defense Mechanisms**
  - a. **Denial** - the refusal to acknowledge an external source of anxiety
  - b. **Fantasy** - utilizing imagination to satisfy desires that are, in reality, highly unlikely (e.g., sexually fantasizing about a celebrity)
  - c. **Intellectualization** - the repression of the emotional component of an anxiety-provoking event. The event is treated in a purely analytical manner
  - d. **Regression** - resorting to infantile behaviors as a method for avoiding anxiety and/or responsibility
  - e. **Identification** - identifying with the anxiety-producing stimulus in an attempt to reduce one's own anxiety (opposite of projection)
  - f. **Overcompensation** - an attempt to conceal perceived deficiencies in one area by excelling in another; e.g., a student with poor academic performance becomes an excellent athlete
  - g. **Sublimation** - the re-channeling of sexual or aggressive impulses in a socially acceptable direction; e.g., an aggressive person becomes a professional boxer

### HUMANISTIC THEORIES - people are rational, capable of choice and desire to achieve personal growth

1. **Carl Rogers** - self-concept directs behavior, conflict between real and ideal self
2. **Abraham Maslow** - individual strives for self-actualization - fulfillment of potential

### EXISTENTIAL PSYCHODYNAMICS

1. **Yalom** - primary drive of the individual is to derive meaning from the complexities of their life experiences; to understand a structure, rationale, or justification to the events they have experienced. Failing this, life is seen as absurd and pointless, leading to despair, depression, and existential crises. The primary concerns of this approach to psychotherapy deal with confronting the issues of *death, freedom, existential isolation, and meaninglessness.*

### SOCIAL COGNITIVE THEORY - how and under what situations thoughts and behaviors are learned

### CONSISTENCY IN PERSONALITY

1. **Trait** - relatively enduring quality or characteristic
2. **Cross-situational** - most central to self-concept

### PERSONALITY ASSESSMENT

1. Assessment methods must be:
  - a. **Reliable** - same results over time
  - b. **Valid** - measure what it is supposed to measure
2. **Interview**
  - a. **Advantage** - tailored to individual's previous answers
  - b. **Disadvantage** - low reliability
3. **Observation**
  - a. times particular behavior occurs
  - b. Good reliability
4. **Self-report**
  - a. **MMPI** - to diagnose psychological disorders
  - b. Ten primary scales measure personality dimensions
5. **Projective techniques** - individual provides an interpretation of ambiguous material
  - a. **Rorschach inkblots**
  - b. **Thematic Apperception Test (TAT)**
  - c. Concerns about reliability and validity since interpretations are subjective

## MOTIVATION AND EMOTION

### MOTIVATION - need or desire to act a certain way to achieve a goal

1. **Range of motives**
  - a. **Physiological** - hunger, thirst, pain avoidance
  - b. **Social** - learned
  - c. **Maslow** - motives organized in a hierarchy of needs - physiological, safety, love and belonging, esteem, self-actualization
2. **Motivational system** - set of motives and behaviors that operate in a particular life area
  - a. **Hunger and eating**
    - i. **Hunger signals** - stomach contractions, hypothalamus, environment
    - ii. **Food preferences** - cultural, personal and biological origins
  - b. **Sexual motivation** - hormones
  - c. **Work**
    - i. **Extrinsic motivation** - working for external reward
    - ii. **Intrinsic motivation** - working for pleasure of activity itself
3. **Maslow's hierarchy of motivations**
  - a. In the hierarchy of needs, the needs at each level must be satisfied before going on to the next level.
  - b. The hierarchy of needs
    - i. **Physiological needs** - food, water, sex, and shelter
    - ii. **Safety needs** - security needs
    - iii. **Belongingness and love needs** - acceptance and friendship
    - iv. **Esteem needs** - self-esteem, and esteem from others
    - v. **Self-actualization needs** - realizing one's potential as a creative, productive person

### EMOTION

1. **Defining features of emotions** - subjective experience, physiological arousal, expressive behavior, changes in cognition
2. **Inborn** - people from different cultural backgrounds can identify emotions
3. **James-Lange Theory** - emotion is a result of a perception of bodily changes and behaviors
4. **Cannon-Bard Theory** - emotion is a result of perception of a stimulus which causes both physiological changes and subjective feelings
5. **Cognitive Labeling Theory** - emotion is a result of the interpretation of the causes of physiological arousal
6. **Frustration-aggression hypothesis** - aggression results from blocking of efforts to achieve a goal

## CONSCIOUSNESS

### JAYNES' THEORY

1. Consciousness not only evolves neurobiologically, but is also formed by the individual's interactions with culture.
2. The foundation of consciousness is based in the physiology of the brain's left and right hemispheres. There are three fundamental forms of human awareness that are the outcome of this process:
  - a. **Bicameral** - controlled by right hemisphere of brain, which dominates left-hemisphere activity. Individual subordinates consciousness of self to control by a group, a higher power, or other individual.
  - b. **Modern** - the dominance of the right brain hemisphere over the left is weakened as civilization develops and humans become more autonomous and independent. As humans become more independent, individual consciousness emerges.
  - c. **Throwbacks to bicamerality** - the re-emergence of bicameral consciousness in modern life is manifested by episodes of schizophrenia, hypnosis and poetic and religious frenzy.

### SLEEP RHYTHMS

1. **REM** - rapid eye movements associated with dreaming

## CONSCIOUSNESS CONTINUED

### 2. Stages of brain waves

- Alpha Waves** - regular, high-amplitude, low frequency wave
- Stage 1** - small, irregular brain waves, light sleep
- Stage 2** - bursts of sleep spindles
- Stage 3** - delta waves; deep sleep
- Stage 4** - extremely deep sleep
- Entire cycle is 30-45 minutes and then reverses

### • WAKEFULNESS

- Conscious processes**
- Subconscious processes** - can be brought into consciousness when necessary
- Nonconscious processes** - remain outside awareness but influence behavior

### • ALTERED STATES

- Meditation** - eliminate distracting thoughts
- Psychoactive drugs** - influence perception, thinking or behavior
  - Stimulants** - speed up nervous system activity - cocaine, amphetamines
  - Depressants** - slow central nervous system activity - alcohol, tranquilizers
  - Opiates** - relieve pain and produce euphoria - opium, morphine, heroin
  - Psychedelic drugs** - alter consciousness - LSD, mescaline
- Hypnosis** - heightened state of suggestibility when subjects can sometimes control unconscious body functions
- Weil's Theory**
  - Humans have an innate drive to experience states of non-ordinary consciousness.
  - Individuals and cultures experiment with ways to change their ordinary states of consciousness.
  - Altered states of consciousness are common; e.g., daydreaming, sleeping, etc.
  - Individuals often are unaware they are in the midst of an experience of non-ordinary consciousness; e.g., daydreams, or alcoholic 'black-out' episodes.
  - Altered states of consciousness form a continuum or spectrum ranging from normal, alert, waking consciousness to sensory deprivation, to coma.
  - Psychotropic and psychedelic drugs do not cause altered states of consciousness—they are merely a way to elicit such states.
  - Understanding the mechanisms of altered states of consciousness can be an avenue to greater understanding of the nervous system; furthermore, such knowledge may lead to the discovery of untapped human potential and a better understanding of ordinary waking consciousness.

## ABNORMAL BEHAVIOR

### • TYPES

- Statistical deviation
- Violation of cultural standards
- Maladaptive behavior
- Emotional distress
- Legal (impaired judgment and lack of self-control)

### • ANXIETY DISORDERS

- Generalized anxiety disorder - chronic anxiety
- Phobia - fear of specific situation, activity or thing
- Obsessive-compulsive disorder
  - Obsessions - recurrent thoughts
  - Compulsions - repetitive behaviors

### • MOOD DISORDERS - (depression & mania)

- Causes
  - Biological (brain chemistry)
  - Social (life situations)
  - Attachment (disturbed relationships)
  - Cognitive (maladaptive thoughts)

### • PERSONALITY DISORDERS

- Paranoid - excessive suspiciousness
- Narcissistic - exaggerated sense of self-importance
- Antisocial - lack of social emotions

### • DISSOCIATIVE DISORDERS - amnesia, multiple personality

### • SOMATOFORM DISORDERS - take the form of physical disorders

### • PSYCHOTIC DISORDERS

- Schizophrenia - bizarre delusions, hallucinations, severe emotional problems, withdrawal
  - Family dynamics - distorted patterns of communication
  - Biological - brain disease(s) or abnormalities in neurotransmitters
  - Stress - combination of heredity and stress
- Organic brain disorders - i.e. diseases, brain injury

### • VIEWS ON THE REALITY OF MENTAL ILLNESS

- Szasz's Objection** - the concept of "mental illness" is a socially constructed myth for the purpose of advancing certain social and political agenda. Clinical psychology is an instrument of repression to enforce conformity and stigmatize non-conformists as "deviant" people with the label "mentally ill."
- Reznek's Definition** - something is a mental illness if, and only if, it is an abnormal\* and involuntary process that does mental harm and should best be treated by medical means.  
\*Note - "abnormal" is used in the constructivist or normative sense, and not in the statistical or idealistic sense, as "normal" is a relative term determined by society.

## TREATMENT AND THERAPY CONTINUED

- Implosion** - client required to imagine the anxiety-producing stimulus in its most vivid and extreme manifestation; client experiences full anxiety response without suffering any harm. Consequently, the stimulus no longer elicits anxiety due to extinction of the response.
- Flooding** - same procedure and theory as implosion, but real or realistically depicted stimuli are used instead of imaginary ones

- Cognitive therapy** - to correct unrealistic thinking
- Humanistic therapy**
  - Client-centered - **Carl Rogers**
    - build self esteem
    - critical qualities of the therapist - warm, genuine and honest
  - Gestalt - Frederick Perls** - self-actualization
- Family and Group therapies** - theorize that problems develop in a social context and must be dealt with in that context

### • EVALUATING THERAPIES

- Therapies are less effective with serious disorders
- Relationship between client and therapist is critical
- Certain therapies are effective for certain specific problems

### • MEDICAL TREATMENTS

- Advantages of Medical Model** - promotes a more humane understanding of patients; aids in the understanding of some organic mental disorders and further initiates research in brain function
- Disadvantages of Medical Model** - environmental variables are unduly minimized or neglected; diagnostic and treatment methods are questionable, thus fostering an institutionalization syndrome. This approach removes responsibility for recovery from the patient while promoting a dependence upon hospitals and chemicals.

### • BEHAVIORISM

- Cognitive components to behavior (e.g., expectations, verbalization, imitation etc.) are unduly minimized or ignored
- Overly operationalistic** - physical correlates are closely identified with mental states (e.g., fear is identified with the physiological manifestations of anxiety). Overlooks the possibility that the interpretation of observable physical symptoms can determine their reality. For instance, the physiological correlates of anxiety may be interpreted as fear, excitement, anger, or sexual arousal depending upon prior expectations, cultural values etc.
- Ignores the role played by intervening inferred cognitive variables

### • COGNITIVE BEHAVIORISM

- Difficult to avoid circular definitions in invoking the meaning of certain mental constructs
- Difficult to determine what extent to allow decreasingly operationalizable mental entities
- The role of psychosomatic variables may be overlooked or minimized
- Some argue that the underlying cause of observable symptoms is ignored by behavioral therapies  
**Note** - Clinically, both behaviorism and cognitive behaviorism only seem effective in the treatment of very specific disorders; e.g., phobias, specific undesirable behaviors. Cannot effectively be applied to amorphous problems such as undifferentiated existential depression.

### • PSYCHOANALYSIS

- Freud's** initial theory based only on case studies and anecdotal evidence, and a patient population which was very limited, atypical, and selective
- Postulates entities that are by definition unobservable and cannot be operationalized for valid scientific evaluation
- Psychoanalysis has been demonstrated (by **Eysenck**) to be ineffective in treating emotional disorders
- In reaction to criticism and undermining evidence against their theory, Neo-Freudians have modified their theory with *post-hoc* hypotheses to the point that it is no longer scientifically testable even in principle

## TREATMENT AND THERAPY

### • MEDICAL TREATMENTS

- Antipsychotic drugs** (major tranquilizers) - schizophrenia
- Antidepressant drugs** (stimulants) - mood disorders
- Surgery** - to destroy brain areas believed responsible for emotional disorders
- Electroconvulsive therapy** - induces seizures used to treat major depression

### • PSYCHOTHERAPY

- Psychodynamic** (insight) therapies - explore the unconscious dynamics of personality
  - Freud**
    - Understanding past produces insight
    - Free association and transference**
  - Neo-Freudians** - use Freud's techniques, usually time limited
- Behavioral therapies**
  - Systematic desensitization** - exposure to a hierarchy of stimuli while relaxing to decrease fears
  - Aversive conditioning** - punishment for unwanted behavior

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