INTRODUCTION

DEFINITION OF PSYCHOLOGY
Scientific study of thought and behavior. Psychologists study how the brain creates thoughts, feelings, and actions, and how internal and external environments affect them.

RESEARCH STUDIES
A. Research: experiments: testable explanations of observed events
B. Studies must have reliability and validity
   1. Reliability: study produces consistent results when replicated
   2. Validity: study accurately measures what it claims to measure. There are 3 types of validity:
      a. Construct study measures the effect it is trying to measure
      b. Internal study shows that only the experimental factor caused an effect
      c. External study: results can be applied to other situations

TYPES OF STUDY
A. Correlational study: expresses the relationship between 2 variables, does not imply causation
B. Experiment: the manipulation of an independent variable to understand its effect on a dependent variable. Identifies cause- and-effect relationships.
   1. Sampling: the process of choosing subjects to study
      a. Simple: group of subjects selected for study; a subset of a population
      b. Population: group of people about whom the researcher wants to make conclusions. Sample should be representative of the population.
   2. Random assignment: random placement of subjects into experimental or control groups
      a. Control group: group not subject to experimental treatment
      b. Dependent variable: measured by the researcher
      c. Independent variable: any possible variable—other than the independent variable—that may cause the observed effect

STATISTICS
Describes data and quantifies relationships between variables
A. Frequency distribution: an arrangement of data points into classes and how frequently they occur
   1. Normal distribution: frequency distribution with the shape of a normal curve (a symmetrical bell-shaped curve)
   2. Central tendency: measures of the center of the frequency distribution. There are 3 types:
      a. Mean: the arithmetic average of data points
      b. Median: the middle data point
      c. Mode: the most frequent data point

NORMAL DISTRIBUTION and standard deviation

3. Variability: how the data are dispersed or spread around the mean
   a. Range: the distance between the highest and lowest data point
   b. Standard deviation (SD): average distance of a data point from the mean
      \[ SD = \sqrt{\frac{\text{score - mean}}{\text{number of scores}}} \]
      - Small SD means the scores are relatively close to the mean score
      - Large SD means the scores have a wider range around the mean
   c. Statistical significance: means that the differences observed are too big to have occurred by chance
      1. Type I error: false positive; perceive an effect that is not there
      2. Type II error: false negative; do not perceive an effect that is there

NEUROPSYCHOLOGY

THE NERVOUS SYSTEM
Receives and transmits information
A. Central Nervous System (CNS): brain and spinal cord. Brain is split into right and left hemispheres. Brain exhibits lateralization (each hemisphere controls opposite side of body), and lateralization (left and right hemispheres have different functions). The three major parts of the brain are the hindbrain, midbrain, and forebrain.
   1. Hindbrain: top part of the spinal cord; includes medulla, pons, and cerebellum
      a. Medulla: basic biological functions like breathing, swallowing, and balance
      b. Pons: facial expressions, sleep, and dreaming
      c. Cerebellum: fine motor movements
   2. Midbrain: coordinates basic movements with sensory information

THE INTERNAL OF THE BRAIN

1. Terminal branches (axon terminals): end of axon that contains neurotransmitters
2. Myelin sheath: insulates axons so that signals can travel quickly
   a. Glial cell: creates myelin, supports and guides neurons, and helps repair neurons

NEUROTRANSMITTERS:
Neurons communicate by receiving and transmitting nerve impulses
A. Axon terminals of the presynaptic neuron are stimulated. The terminals contain synaptic vesicles, which empty neurotransmitters into the synapse between the neurons. Neurotransmitters activate the postsynaptic neuron, changing its voltage. Once the excitation threshold is reached, the action potential begins and a neuron fires.
   1. Synapse: small gap between neurons where information is exchanged
   2. Synaptic vesicles: places where neurotransmitters are stored until release into the synapse
   3. Neurotransmitters: chemicals that stimulate neurons so they can communicate
      a. Excitatory: makes neurons more likely to fire
      b. Inhibitory: makes neurons less likely to fire
   4. Excitation threshold: the voltage difference necessary (-55 millivolts) to destabilize a neuron, causing an action potential to occur
   5. Action potential (nerve impulse): the brief change in electrical charge that destabilizes a neuron. The action potential stimulates the axon terminals, restarting the process.

SENSATION

PARTS OF THE EYE
A. Cornea: protective covering where reflected light first enters the eye
B. Lens: bends (refracts) light rays. Focuses a flipped, inverted image onto the retina
C. Retina: thin structure at back of eye that contains 2 types of receptor cells
   1. Rods: cells in the periphery of the retina that respond to black and white. Better in low light, more sensitive to motion, and have less visual acuity than cones
   2. Cones: centered in the fovea (middle of the retina). Respond to color, good for daytime vision, more visual acuity
D. Optic nerve: carries visual information to the lateral geniculate nucleus of the thalamus
1. Blind spot: where the optic nerve exits the eye. Has no receptor cells, so no vision.

VISION

A. Light waves: electromagnetic waves that stimulate receptor cells in the eye
   1. Intensity: amount of energy per unit of time (brightness)
   2. Wavelength: distance between two wave crests (color)
B. 2 theories of color vision
   1. Trichromatic theory (Young-Helmholtz): 3 types of cones detect 3 wavelengths of light (blue, green, red). Theory does not explain negative afterimages
      a. Negative afterimage: if you stare at one color, then look at white space, you see a color afterimage in the complement of the original stimulus
   2. Opponent-process theory (Hering): receptor cells arranged in pairs, red/green, blue/yellow. If one color is stimulated, the other is inhibited.
“UNFATHOMABLE MIND, NOW BEACON, NOW SEA.”

SAMUEL BECKETT

PARTS OF THE EAR

A. Outer ear (pinna): collects sound from air and directs it through the ear canal
B. Tympanic membrane (eardrum): membrane that vibrates when sound hits it
C. Oval window: membrane that separates middle ear from inner ear; sends vibrations to the cochlea
D. Cochlea: fluid-filled membrane in the inner ear; its pressure changes stimulate hair cells
E. Hair cells: auditory receptor cells that translate nerve impulses into sound sensations

AUDITION: SENSE OF MEANING

A. Sound waves: vibrations (changes in air pressure) that stimulate auditory receptors
2. Frequency: length of wave (pitch). Time between 2 points of maximum pressure.
   a. Place Theory: hair cells respond to different frequencies of sound based on their location in the cochlea
   b. Frequency Theory: hair cells fire at different rates (frequencies) in the cochlea, allowing us to sense pitch

CHEMICAL SENSES

A. Smell (olfaction): information gathered from chemicals in the air inhaled molecules excite receptors in the olfactory epithelium. Olfactory bulb gathers messages from the olfactory epithelium and sends them to the brain
B. Taste: sensory receptors in taste buds of tongue sensitive to salty, sour, bitter, and sweet

MECHANICAL SENSES

A. Skin senses: information from the skin, including pressure, pain, warm and cold
B. Vestibular senses: receptors in semicircular canal of inner ear sense how our body is oriented, maintains balance, and locates our head in space
C. Kinesthetic sense: receptors in muscles, tendons, joints give information about our limbs

PERCEPTION

Understanding and interpreting sensations from a stimulus

PERCEPTUAL CUES

A. Perceptual constancy: we see qualities of an object as constant (size, shape, brightness)
B. Visual depth perception: the perception of cues that indicate the distance of an object
   1. Monocular cues: cues that do not use 2 eyes
      a. Interposition: things in front are closer
      b. Size: nearer objects are closer
      c. Linear perspective: objects produce smaller retinal image as they are farther away
      d. Texture gradients: details of texture if the surface is closer
   2. Binocular cues: cues that use 2 eyes
      a. Binocular disparity: difference between two eyes’ views. There is less disparity between the eyes the farther the object is from the observer.
   3. Motion cues
      a. Motion parallax: as you move your head, images of close things change position more quickly on the retina than images of distant ones
   4. Gestalt rules: laws used by the brain to group or organize elements of a scene
      a. Proximity: things near each other belong together
      b. Similarity: things that resemble each other belong together
      c. Continuity: things that form a continuous line belong together
      d. Closure: things that make up something we recognize belong together
      e. Common fate: things moving in the same direction belong together

TYPES OF PROCESSING

How we recognize and organize stimuli
A. Bottom-up (feature analysis): starts with the smaller, specific elements of a scene and uses them to create the larger units or context
B. Top-down: starts with a larger context or units to recognize smaller, specific elements of the scene; uses schema (mental representations of our expectations of the world)

ATTENTION

Process of perceiving some information and not other information
A. Cocktail party effect: people suddenly switch attention if name is said
B. Stroop effect: automatic processes can interfere with other tasks; hard to name the color of a word colored differently because reading process is more automatic (GREEN/RED)

LEARNING

Changes in behavior due to experience

2 TYPES OF SIMPLE LEARNING

A. Habituation: tendency to respond to stimuli that become familiar
B. Classical conditioning (Pavlov): creation of involuntary responses to stimulus
   1. Elements of classical conditioning
      a. Unconditioned stimulus (UCS): from the environment; triggers natural response
      b. Conditioned response (UCR): natural reaction to UCS
      c. Conditioned stimulus (CS): paired with UCS. Before pairing, the CS does not produce a response; after pairing it does
   2. Pavlov’s experiment
      a. CS (bell) no response
      b. UCS (food) UCR (salivation to food)

OPERANT/INSTRUMENTAL CONDITIONING (SKINNER)

A. Operant conditioning: learning based on the association of consequences to one’s behavior
   1. Reinforcer: an instrumental response (e.g., pressing a lever)
   2. Reinforcer (reward): something that increases the likelihood of a behavior (food, water). 2 types
      a. Positive reinforcement: if desired behavior occurs, then add something pleasant
      b. Negative reinforcement: if desired behavior occurs, then take away something unpleasant
   3. Punisher: something that decreases the likelihood of a behavior (shock, loud noise)
      a. Learned helplessness: occurs when one believes that unpleasant or painful stimuli are inevitable and gives up trying to change the circumstances

B. Principles of operant conditioning
   1. Shaping: reinforcing successive steps to reach a desired behavior
   2. Chain: reinforcing a series of behaviors to get to a reward
   3. Extinction: occurs if behavior no longer reinforced
   4. Schedules of reinforcement: pattern of reinforcing behavioral responses
      a. Fixed ratio: reinforcement after a fixed number of correct responses
      b. Variable ratio: reinforcement after a variable number of correct responses
      c. Fixed interval: reinforcement after a fixed amount of time
      d. Variable interval: reinforcement after a variable amount of time
   5. Punishment: decreases the likelihood of a behavior (shock, loud noise)
      a. Learned helplessness: occurs when one believes that unpleasant or painful stimuli are inevitable and gives up trying to change the circumstances

MEMORY

The way we record events, information, and skills
A. Encoding: acquiring information from the world and storing it in memory
   1. Levels of processing (Craik & Lockhart): 2 types of encoding strategies
      a. Shallow: encoding for surface features (less successful)
      b. Deep: encoding for structural relationships and meaning (more successful)
   2. Storage: holding on to information for later use
   3. Retrieval: getting information back when it is needed. 2 ways to retrieve information
      a. Recall: supplying information in response to a cue or question
      b. Recognition: deciding whether information was encountered before

MEMORY SYSTEMS

A. Sensory memory: where information first enters memory system. Large capacity, short duration (split seconds); some of it is encoded or stored in the STM
B. Short-term memory (STM) or working memory: where we use and are aware of memories for 15-30 seconds
   1. Capacity: 7 plus or minus 2 items
   2. Duration of STM through rehearsal of information
   3. Long-term memory (LTM): relatively permanent store of information, unlimited capacity, and long duration. One can transfer memories from STM to LTM by rehearsal
      a. Implicit memory for skills and motor patterns
      b. Explicit memory for facts, events, and meanings
      c. Semantic memory: for general meanings and information
      d. Episodic: memory of specific events
      e. Autobiographical: memory for events with meaning for the self

THE MEMORY MODEL: the way we process and retrieve information

Sensory Memory
Short-Term Memory
Long-Term Memory

Sensory stimuli
Information lost if not encoded
Information lost if not encoded
Information lost due to retrieval failure, interference, displacement, decay

Selective attention

Retrieval

Environmental stimuli

Storage

CONTINUED ON OTHER SIDE
DEVELOPMENT

How humans grow and change over time

2 DEVELOPMENTAL PROCESSES

A. Learning (nurture): environmental influence on the growth process
   1. Classical conditioning
   2. Operant conditioning
B. Maturation (nature): genetic/biological influence on the growth process

PHYSICAL DEVELOPMENT

A. Infant stage: babies born with reflexes (automatic behaviors, e.g., rooting, sucking, grasping, startle)
B. Adolescence: more myelination of the frontal lobes may allow for greater self-control
C. Aging: older adults often experience a decline in short-term memory and the ability to process information

SOCIAL DEVELOPMENT

Growth in how one relates to others
A. Attachment: emotional connection or relationship between caretaker and baby
   1. Harlow’s monkey studies: showed that fear of unknown produces attachment
   2. Monkeys raised by soft, cuddly surrogate mothers even if they did not have food
   3. Monkeys raised without mothers were socially incompetent, aggressive, and unable to raise their own babies
B. 3 phases of attachment (Ainsworth)
   1. Secure attachment: warm relationship exists between baby and mother; infant is not afraid of abandonment
   2. Resistant attachment: parent-child relationship exists between baby and mother, but baby is afraid of abandonment
   3. Avoidant attachment: distant relationship between baby and mother; infant appears indifferent to whether mother is present
C. Socialization: process by which one acquires the patterns of behavior of one’s society
   1. Parenting styles: parents are one of the primary socializing agents
   2. Categories of socialization styles: authoritarian, permissive, and authoritative
   3. Service-learning: a method of socializing that combines service to others with learning about social issues
D. Social identity: understanding one’s place in society
   1. Self-esteem: feelings of self-worth
   2. Social comparison: process of comparing oneself to others

EMOTION

Emotion involves physical and cognitive arousal and affects motivation
A. Theories of emotion
   1. James-Lange theory: experiencing an emotion is a result of perceiving a bodily response to arousing stimuli
   2. Cannon-Bard theory: we simultaneously feel emotion and a bodily response to arousing stimuli
   3. Schachter-Singer theory: emotion is determined by the interpretation of bodily symptoms
B. Motivation
   1. Intrinsic motivation: the internal drive to engage in an activity for its own sake
   2. Extrinsic motivation: external factors (rewards, punishment, etc.) influence behavior
C. Maslow’s hierarchy of needs: the needs of others to satisfy
   1. Physiological needs
   2. Safety needs
   3. Love and belonging needs
   4. Esteem needs
   5. Self-actualization needs

STRESS

Physical and psychological response to an event or change
A. Stress: refers to events (stressors) or how we react to the changes (stress reactions)
   1. Stressors can be positive (wedding) or negative (losing a job)
   2. General Adaptation Syndrome (Selye): 3-stage process of stress response (alarm, resistance, exhaustion)
   3. Personality: affects how people respond to stress
      a. Type A: stress triggers hostility, anxiety, competitiveness, risk for heart disease
      b. Type B: copes well with stress, easy-going

CONSCIOUSNESS AND SLEEP

The level of awareness of our own existence, thoughts, feelings, and our environment
A. Consciousness: state of awareness
   1. Conscious: consists of information that is currently the subject of attention
   2. Preconscious: information that is not being attended to, but could be attended to later
   3. Subconscious: information that we are not aware of, but exists and affects us
B. Body processes controlled by our mind that we do not attend to
C. Unconscious: cognitive activity outside our awareness
D. Sleep: after consciousness by increasing or blocking the effects of neurotransmitters
   1. Alpha: drug that mimics effects of neurotransmitters
   2. Antagonist: drug that blocks neurotransmitters
   3. Types of drugs:
      a. Stimulants (caffeine, nicotine, amphetamines)
      b. Depressants (alcohol, barbiturates)
      c. Opioids (narcotics)
D. Sleep stages
   1. Stage 1: light sleep
   2. Stage 2: deeper sleep
   3. Stage 3: slow-wave (delta) sleep
   4. Stage 4: deepest type of sleep
   5. REM sleep: rapid eye movement (REM) cycle (90 minutes)
      a. Stage 1: sleep
      b. Stage 2: deep sleep
      c. Stage 3: slow-wave (delta) sleep
      d. Stage 4: deepest type of sleep
   6. REM: rapid eye movement cycles (10–15 minutes long, throughout sleep)
   7. Vivid dreams occur; body is paralyzed; important for memory consolidation and learning

INTRODUCTION TO PSYCHOLOGY

Language, thinking, and intelligence
A. Elements of language
   1. Language: smallest unit of sound in language
   2. Morpheme: smallest sound unit that carries meaning
   3. Syntax: how words are arranged into phrases and sentences
   a. Surface structure: how words are organized
   b. Underlying structure: meaning of sentences
B. Language acquisition: learning occurs in stages
   1. Babies naturally practice with phonemes (babbling)
   2. Telegraphic speech: using short phrases to form primitive sentences
C. Language disorders:aphasia (an absence of some part of the ability to use language)
   1. Broca’s aphasia: inability to produce fluent speech
   2. Wernicke’s aphasia: inability to comprehend speech
D. Mental activities used to reason or reflect
   1. Type of thinking
      a. Directed: includes thought processes like reasoning, problem solving, and problem solving
      b. Automatic: involves feature detection and daydreaming
   2. Mental representations: abstract ideas of sensory images
   3. Concept formation: mentally classifying objects and events based on common features
   a. Concept: category or classification of objects
   b. Prototype: best example of a concept (sparrow)
   c. Defining attributes: features that distinguish a category
   d. Non-defining attributes: features that do not distinguish a category
   e. Problem solving: using a set of information to achieve a goal
   f. Learning: acquisition of new knowledge
   g. Reasoning: determining the conclusions that can be drawn from examples or arguments
   h. Inductive reasoning: constructing conclusions from particular examples
   i. Deductive reasoning: deciding whether a conclusion can be drawn from the premises or facts

INTELLIGENCE

A. Theories of intelligence
   1. Spearman: 1 factor in intelligence, called g factor
   2. Sternberg: 3 types of intelligence: analytic, practical, and experiential
   3. Gardner: 7 types of intelligence: linguistic, musical, spatial, kinaesthetic, interpersonal, and intrapersonal
B. Ways of measuring intelligence
   1. Intelligence Quotient (IQ) test: calculates the distance between a person’s mental and chronological ages
   a. IQ = 100 + (X mental age – chronological age) / chronological age × 100
   b. Stanford-Binet Scale: tests verbal, abstract, visual, and quantitative reasoning, and short-term memory
   c. Wechsler Adult Scale: test of general knowledge, verbal, mathematical, spatial skills
PERSONALITY
Unique behaviors, attitudes, and emotions that characterize an individual

TRAIT APPROACH
Employs traits to define personality
A. Three-factor model (Eysenck): people differ on 3 personality factors
   1. Neuroticism
   2. Extraversion
   3. Psychoticism versus Self-control
B. The five-factor model (Big Five) (Norman): personality described using 5 traits: extraversion, neuroticism, openness, agreeableness, and conscientiousness

BEHAVIORAL-COGNITIVE APPROACH
Emphasizes environment, situations, and behavior
A. Behavioralists: reinforcement of behavior (operant conditioning) determines personality
B. Social learning: personality also formed by modeling (the observation of behavior)

PSYCHODYNAMIC APPROACH
A. Freud's theory: personality differences arise from unconscious conflicts and desires
   1. 3 subsystems of personality
      a. Id: most primitive, unconscious, infantile; pleasure principle (instant gratification)
      b. Ego: rational, logical; upholds the reality principle (functions within reality)
      c. Superego: conscience; internalized social rules; punishes ego with guilt
   2. Hypnosis: the individual enters a trance state
   3. Displacement: redirection of impulse from one channel into another
   4. Resistance: the individual resists expressing thoughts and feelings
   5. Repression: unconscious unacceptable thoughts are repressed
   6. Transference: the individual directs feelings towards the therapist instead of the situation

HUMANISTIC THEORIES
Focus on whether people achieve their potential
A. Maslow: individual strives to fill a hierarchy of needs to attain self-actualization
   1. Hierarchy of needs: levels of needs with physiological needs (food, water) at the bottom; esteem and achievement higher up
   2. Self-actualization: top level of hierarchy; desire to realize one's full potential
B. Rogers: focuses on the importance of the self-concept
   1. Self-concept: sense of self as both an agent (I) and object (me)

PERSONALITY ASSESSMENT
A. Self-report tests
   1. MMPI (Minnesota Multiphasic Personality Inventory): questionnaire used to diagnose psychological disorders
   2. CPI (California Personality Inventory): nonclinical test for personality traits
B. Projective techniques: individual interprets ambiguous stimuli
   1. Rorschach: individuals discuss inkblots or unstructured forms
   2. TAT (Thematic Apperception Test): individuals tell stories about scenes

SOCIAL PSYCHOLOGY
The study of how individuals relate to others

SOCIAL COGNITION
The way we understand and interpret social events
A. Social comparison: individuals judge their thoughts and behaviors by comparing themselves to the group. Reduces doubt about one's beliefs (Asch's perceptual judgment task).
B. Attributions: stable opinions that affect feelings, thoughts, and behaviors about an issue
   1. Cognitive dissonance: inconsistency among experiences, beliefs, or values. People are motivated to restructure experiences, beliefs, feelings so they are consistent
   2. Stereotyping: beliefs about people based on their group membership
   3. Prejudices: undeserved, negative beliefs about people without regard to their group membership
   4. Attribution: how one explains one's own and others' behaviors. 2 main ways:
      a. Situational: attribute behavior to environment
      b. Dispositional: attribute behavior to something within a person

3. Fundamental attribution error: the tendency to explain behavior as an effect of disposition rather than situation
4. Self-serving bias: people's successes to external causes and one's failures to external causes; taking credit for successes rather than failures
5. Social roles: social behaviors each person assumes and is expected to live up to
   a. Role: social behavior governed by norms (conventions). A role is more relevant when person is away from the group.
   b. Zimbardo's prison study: students assigned to guard or prisoner roles and behavior changed to fit the assigned role (guards=abusive, prisoners=passive, scared)

THE SELF
A. Self-concept: one's thoughts about the self
B. Self-esteem: one's judgment about the value and worth of the self
C. Self-consciousness: tendency to pay attention to the way one is doing things, thinking, and feeling
D. Self-monitoring: ability to shape one's own behavior to conform to the demands of the group or situation
E. Self-perception theory (Bem): one indirectly infers one's own attitudes and feelings by observing one's own behavior and using attribution processes

ONE-ON-ONE INTERACTIONS
A. Exchange relationships: most human relationships built on give-and-take
B. Love relationships
C. Companionate love: trust, caring, affection

GROUP DYNAMICS
A. Group polarization: tendency of a group to express more extreme views than members would express as individuals
B. Social facilitation effect: behavior improves when people perform to better others who are watching
C. Bystander effect: diffusion of responsibility when a large group of people are present ( Kitty Genovese attack)
D. Conformity: people follow the behavior of the group
   1. Milgram: studied obedience to authority
      a. Subjects were assigned as teachers and told to shock learners if they answered incorrectly
      b. Many subjects continued to follow instructions even when they believed they were delivering dangerous levels of shock

ABNORMAL PSYCHOLOGY
WHAT IS INSANITY?
A. Five ways to define abnormality
   1. Condition considered abnormal in the person's culture
   2. Condition causes personal distress to the subject
   3. Condition prevents functioning in society
   4. Condition makes the person a danger to self or others
   5. Condition calls into question a person's legal responsibility for actions
B. Rosenhan sanity study: showed difficulty in diagnosing insanity
C. Psychotic disorders are: intermittent anxiety, characterized by panic attacks
   1. Panic attacks: episodes of frightening mental and physical symptoms
   2. Obsessive Compulsive Disorder (OCD): obsession uncontrollable, repetitive internal thoughts cause anxiety
   3. Compulsions: behaviors performed to counteract obsessive thoughts

TYPES OF DISORDERS
Psychological disorders are defined by the Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM-IV)
A. Anxiety disorders
   1. Phobias: intense, irrational fears of specific items or situations
   a. Agoraphobia: fear of open, public spaces
   b. Social phobia: fear of embarrassing social situations
   2. General Anxiety Disorder (GAD): chronic, pervasive low-level anxiety
   3. Panic disorder: intermittent anxiety, characterized by panic attacks
      a. Panic attacks: episodes of frightening mental and physical symptoms
   4. Obsessive Compulsive Disorder (OCD)
   5. Depression: recurrent, overwhelming, repetitive internal thoughts cause anxiety
   a. Compulsions: behaviors performed to counteract obsessive thoughts

B. Mood disorders
   1. Major depression: characterized by unhappiness, fatigue, loss of appetite, and low self-esteem
   2. Bipolar Disorder (Manic Depression): periods of depression followed by periods of mania (high energy, inhibition)

C. Schizophrenia
   1. Positive symptoms: hallucinations, disorganized thought, delusions (false beliefs)
   2. Negative symptoms: lack of speech and emotional expression, and social withdrawal
   3. Types of schizophrenia
      a. Catatonic: people are motionless, suddenly frenzied, and may hold contorted postures (waxing and waning)
      b. Disorganize: people are incomprehensible and show inappropriate emotional reactions
      c. Paranoid: people have delusions of persecution and grandeur

TREATMENT OF PSYCHOPATHOLOGY
PSYCHOTHERAPY
5 main psychological therapies
A. Classical psychoanalysis (Freud): helps clients (patients) uncover and resolve repressed, unconscious childhood conflicts; involves 4 main techniques
   1. Free association: client says whatever comes to mind; technique uncovers unconscious meanings and preoccupations
   2. Transference: client transfers conflicts and emotions onto psychoanalyst; shows client how they feel about important people
   3. Resistance: focuses on what client refuses to talk about; helps client recall repressed memories
   4. Dream analysis: therapy involves interpreting dream imagery, because unconscious conflicts manifest as symbols in dreams
   5. Psychodynamic therapy: modified version of psychoanalysis that explores unconscious conflicts based on cultural or interpersonal factors, not childhood

C. Humanistic therapies: treats the whole person; involves 2 main techniques
   1. Person-centered therapy (Rogers): based on belief in fundamental goodness of humans. Therapist encourages client to achieve self-actualization using 3 main non-directive techniques
      a. Unconditional positive regard: person is valued no matter what
      b. Acceptance: therapist is always honest
      c. Empathy: therapist must feel what the patient is feeling
   2. Existential therapy: tries to imbue meaning in client's life. Helps client take responsibility and exercise free choice. Goal to make client feel life is authentic

D. Behavior therapies: treatments that involve changing behavior with little or no attention to the causes of the behavior. Effective for phobias; involves 3 main techniques
   1. Exposure techniques: breaks connection between stimulus and the resulting fear
      a. Extinction: therapist presents a stimulus without the threatening response, so that the associated fear will eventually disappear
      b. Systematic desensitization: therapist teaches client to replace feelings of fear with relaxation; exposes client to hierarchy of stimuli called anxiety hierarchy
   2. Aversion therapy: pairing a stimulus with an unpleasant stimulus so that client breaks the habit
   3. Operant conditioning: the control of behavior through reinforcement; enhances the connection between behavior and consequences, involves 2 main techniques
      a. Positive reinforcement: provides rewards for desired behavior
      b. Contingency management: client learns that behaviors have strict consequences

E. Cognitive therapies: treatments that change the client's thought patterns
   1. Rational-Emotive Therapy (Ellis): confronts and changes client's irrational beliefs
   2. Cognitive therapy (Beck): replaces negative thoughts with positive thoughts

BIOLICAL / MEDICAL TREATMENT
From modern cognitive therapy
A. Drug therapy (Pharmacopotherapy): drugs can be effective but may also have side effects. There are 3 main categories of drugs
   1. Antidepressants: 2 main types of drugs that treat depression
      a. Selective: allow serotonin to stay in synapses, increase activity of serotonin (Prozac)
      b. MAO inhibitors: prevent the breakdown of monoamines (serotonin)
   2. Anxiolytics: type of drug that treats anxiety
      a. Benzodiazepines: tranquilizers (Valium)
   3. Antipsychotics: drugs used to treat symptoms of schizophrenia such as delusions and agitation (Clapazine)

B. Electroconvulsive therapy (ECT): treatment for major depression. Doctor uses electric shocks through brain hemisphere(s) to induce seizures. Side effects include memory loss and muscle aches and weakness