Introduction to Psychology

Main ideas and terms to know:

~Understand the main perspectives on psychology, past and present:
  • Introspection (Wundt)  • Behavioral (Skinner & Watson)
  • Humanist (Rogers)    • Psychoanalytic (Freud)
  • Neurobiological     • Socio-cultural
  • Evolutionary        • Behavior genetics  • Cognitive

~Know the various degrees, careers, and subfields of psychology:
  • psychiatrist vs. psychologist  • subfields of psychology

~Understand the need for scientific research and the limitations of common sense:
  • applied vs. basic research  • hindsight bias  • overconfidence
  • confirmation bias          • illusory correlation
  • false-consensus effect

~Understand the various research methods, their strengths and weaknesses:
  • case study  • survey  • random sample
  • naturalistic observation  • correlation  • positive correlation
  • negative correlation  • correlation coefficient
  • experimental method  • experimental condition
  • control  • independent variable
  • dependent variable  • confounding variable
  • random assignment  • within-group design
  • single blind  • double blind
  • experimenter bias  • placebo
  • quasi-experimental

~Understand some of the statistical measures used to explain and describe experimental results:
  • correlation coefficient (Pearson’s R)  • meta-analyses
  • properties of a normal distribution (bell-shaped curve)  • 68% and 96%
  • positively and negatively skewed distributions  • variance
  • standard deviation  • significance test (.05)
  • measures of central tendency (mean, median, mode)  • null hypothesis

~Understand some of the ethical issues of psychological research:
  • guidelines for animal research  • deceiving subjects  • informed consent
The Biological Basis of Behavior

Main ideas and terms to know:

~Understand the structure and function of a neuron:
  * soma  • axon  • dendrite  • myelin sheath
  * nodes of ranvier  • synaptic terminals
  * synaptic vesicles  • synaptic knob  • nucleus
  * resting potential  • action potential  • selective permeability
  * sodium-potassium pump  • depolarization  • hyperpolarization
  * absolute threshold  • refractory period  • all-or-none response
  * excitatory vs. inhibitory signals  • synapse
  * neurotransmitter  • Steps of synaptic transmission)
  * antagonist  • glial cell
  * types of neurons (sensory, motor, inter)

~Understand the various branches of the Nervous System
  Peripheral, Central, Autonomic, Skeletal, Sympathetic, and Parasympathetic
  (know the basic function of each and how they are connected)

~Know the major glands of the endocrine system, the hormones that they secrete, and how hormonal transmission differs from neural transmission:
  Adrenal, Pituitary, Thyroid, Para-thyroids, Pancreas, Ovary, Testis

~Understand the various techniques for studying the brain:
  • lesion studies  • ablation  • EEG  • CAT Scans
  • PET Scans  • MRI

~Know the parts of the brain and their basic functions:
  Brain Stem  Cerebellum  Cerebral Cortex  Hindbrain
  Thalamus  Frontal lobes  Midbrain  Hypothalamus
  Parietal lobes  Forebrain  Limbic System  Occipital lobes
  Medulla  Hippocampus  Temporal  Pons
  Amygdala  Corpus Collosum  Motor cortex
  Sensory cortex  Broca’ area  Wernicke’s area  Reticular formation

~Understand the findings of the split-brain patient studies and the concept of hemispheric specialization
Main ideas and terms to know:

~Understand the basic principles of perception:
  • Absolute threshold  • difference threshold  • JND
  • signal detection theory  • Weber’s Law  • subliminal messages
  • sensory adaptation  • habituation

~Know the parts of the eye and their functions
  • transduction  • wavelength = hue
  • amplitude = intensity (brightness)
  • pupil  • iris  • lens
  • retina  • rods  • cones
  • retina  • fovea
  • blind spot  • feature detectors
  • afterimage  • opponent process theory
  • Young-Helmholtz trichromatic theory

~Know the parts of the ear
  • amplitude = loudness  • frequency = pitch  • pinna
  • outer ear  • auditory canal  • eardrum
  • middle ear  • hammer  • anvil  • stirrup
  • inner ear  • semicircular canals  • cochlea
  • place theory  • frequency theory
  • conduction vs. nerve deafness

~The minor senses: touch, taste, smell
  • phantom limb sensation  • gate control theory  • pain control
  • taste buds  • kinesthesis  • lock & key theory of smell

~Understand the following concepts related to perception:
  • selective attention (cocktail party effect)
  • Depth perception: Binocular Cues vs. Monocular cues
  • Constancies (shape, size, distance, brightness)
  • adaptation  • context effects

~Identify biological and social factors that effect perception

~Consider the claims and skepticism of ESP
  • telepathy  • clairvoyance  • precognition
  • psychokinesis  • ganzfeld procedure
Alternate States of Consciousness

*Know the various sleep stages and their characteristics*
- Stages 1, 2, 3, 4, REM
- Hypnagogic sensations
- Paradoxical sleep
- Narcolepsy
- Alpha waves
- Delta waves
- Sleep spindles
- Slow-wave sleep
- Night terrors
- Insomnia
- Sleep apnea
- REM rebound

*Dream Theory*
- Freudian (latent and manifest content)
- Activation-synthesis hypothesis

*Understand the “facts and falsehoods” of hypnosis*

*Know the various psycho-active drugs, their effects and classifications.*

*Names to Know:*
Charles Sherrington  Roger Sperry  Phineas Gage
Learning and Memory

Main ideas and terms to know:

~Understand the basic principles of Classical Conditioning:
• unconditioned stimulus (UCS) • unconditioned response (UCR)
• conditioned stimulus (CS) • conditioned response (CR)
*(note: be able to identify the CS, CR, UCS, & UCR from a scenario)
• conditioning arrangements: (delayed, trace, simultaneous, backward)
• stimulus generalization • stimulus discrimination
• higher order conditioning • extinction
• spontaneous recovery • aversion therapy
• systematic desensitization

~Understand the basic principles of Operant Conditioning:
• positive & negative reinforcement • positive & negative punishment
• escape and avoidance responses • shaping
• primary & secondary reinforcers • successive approximations
• Skinner box • continuous vs. partial reinforcement
• schedules of reinforcement: fixed and variable interval, fixed and variable ratio
• latent learning • overjustification

~Understand the basic principles of observational learning:
• modeling • Bobo doll studies

~Understand the processes involved in memory:
• sensory memory • short term memory
• long term memory • flashbulb memory
• chunking • mnemonic devices
• encoding • storage • retrieval
• semantic encoding • acoustic encoding • visual encoding
• interference theory • retroactive vs. proactive interference
• iconic & echoic memory • implicit vs. explicit memory
• Long term potentiation • state dependent memory

~ Explain the various theories of forgetting
• decay • disuse • encoding failure
• positive & negative transfer
• tip-of-the-tongue phenomena

~Consider the concept of constructed memory and the debate on repressed and recovered memories:
• misinformation effect • anterograde & retrograde amnesia
• eyewitness testimony

~Names to Know:
Ivan Pavlov B.F. Skinner John Watson
Albert Bandura Herman Ebbinghaus George Sperling Elizabeth Loftus
Cognition and Intelligence

Main ideas and terms to know:

~Understand the methods and limitations of problem solving:
  • algorithm                     • heuristic                 • insight            • prototype
  • fixation                                  • mental set                  • functional fixedness
  • confirmation bias                 • representative heuristic       • availability heuristic
  • overconfidence                   • framing                                   • belief perseverance
  • belief bias                        • artificial intelligence & neural networks

~Understand the structure of language and the theories of language acquisition:
  • phoneme                • morpheme               • grammar
  • semantics               • syntax
  • stages of language acquisition
  • holophrastic speech • critical period • telegraphic speech
  • Whorf’s linguistic relativity • Chomsky vs. Skinner

~Consider the ways in which we define and measure intelligence:
  • Flynn effect   • IQ equation   • Stanford-Binet Test
  • mental age                        • g-factor               • savant syndrome
  • multiple intelligences • savant syndrome • emotional intelligence
  • achievement vs. aptitude tests • standardization
  • normal curve                     • reliability             • validity
  • WAIS and WISC                    • degrees of mental retardation
  • heritability of intelligence     • cultural bias/fairness

~Names to Know:
  Francis Galton   Alfred Binet   Lewis Terman
  David Wechsler   Howard Gardner  Robert Sternberg,
  Arthur Jensen.
Motivation and Emotion

Main ideas and terms to know:

~Understand the basic concepts and theories of motivation: pay particular attention to the interplay between psychological and physiological factors:
  • Instincts
  • Evolutionary theory
  • Drive-reduction theory
  • Homeostasis
  • Incentive motivation
  • Arousal theory (Yerkes-Dodson Law)

~Understand the psychological and physiological factors behind hunger motivation:
  • Physiological factors: stomach contractions, glucose, serotonin, hypothalamus (remember the difference between the lateral and the ventromedial)
  • Set point
  • Metabolic rate
  • Psychological factors: culture, externals vs. internals
  • Eating disorders: anorexia nervosa and bulimia nervosa

~Understand the psychological and physiological factors behind sexual motivation:
  • Sexual response cycle (Masters & Johnson): excitement, plateau, orgasm, resolution (refractory period)
  • Kinsey report
  • Hormonal influence
  • Gender differences in sexual responses
  • Sexual orientation (psychological and biological factors)
  • Sexual disorders

~Understand the factors that lead to achievement orientation:
  • Birth order effects
  • Intrinsic vs. extrinsic motivation
  • Theory X vs. Theory Y managers

~Understand the physiological and cultural factors related to the expression of emotion:
  • Culturally universal expressions of emotion
  • Characteristics of fear, anger, and happiness
  • Catharsis
  • Subjective well-being
  • Feel good, do good phenomenon
  • Relative deprivation

~Understand the three theories of emotion:
  • James-Lange
  • Cannon-Bard
  • Schachter-Singer (two factor)
  • Contemporary model
Developmental Psychology

Main ideas and terms to know:
~Understand the main issues involved with the physical development of a child:
  • teratogens
  • fetal alcohol syndrome (FAS)
  • maturation
  • the development of the brain
  • window of opportunity
  • critical period
  • plasticity

~Understand Piaget’s stages of cognitive development:
  • be able to recognize all four stages and know what a child can and cannot do at each stage:
    SENSORIMOTOR
    PRE-OPERATIONAL
    CONCRETE OPERATIONAL
    FORMAL OPERATIONAL
    • assimilation
    • accommodation
    • object permanence
    • egocentrism
    • conservation
    • animism
    • reversibility
    • cognitive maps
    • relational logic
    • seriation
    • abstract thinking
    • hypothetical-deductive reasoning

~Understand Kohlberg’s stages of moral development:
  Pre-conventional Morality:
  - punishment-and-obedience orientation
  - naive hedonism
  Conventional Morality:
  - “good boy/girl” orientation
  - social order maintaining morality
  Post-conventional Morality:
  - morality of contract, individual rights, democratically accepted law;
  - morality of individual principles of conscience

~Understand Erik Erikson’s Eight Stages of Social Development:
  • be able identify all eight stages and the crisis associated with each:
    Oral-sensory
    Muscular-anal
    Locomotor-genital
    Latency
    Puberty-adolescence
    Young adulthood
    Adulthood
    Old age
    • trust vs. mistrust
    • autonomy vs. shame/doubt
    • initiative vs. guilt
    • industry vs. inferiority
    • identity vs. role confusion
    • intimacy vs. isolation
    • generativity vs. stagnation
    • ego integrity vs. despair

~Understand other concepts that relate to social development:
  • Attachment theory
  • secure attachment vs. insecure attachment (Ainsworth’s Strange Situation Studies)
  • Kagan’s research on infant temperament
  • Harlow’s monkey studies
  • Gender identity and gender typing
  • Maccoby and Jacklin study
  • Bio-social theory
  • Social-learning theory
  • Gender-schema theory
  • three parenting styles: authoritarian, authoritative, permissive, rejecting-neglecting

~Developmental issues from adolescence through old age:
  • adolescence
  • puberty
  • crystallized intelligence vs. fluid intelligence
  • Kübler-Ross’s five stages of dying: denial, anger and resentment, bargaining, depression, acceptance.

Names to Know: Jean Piaget, Lawrence Kohlberg, Erik Erikson, Harry Harlow, Jerome Kagan, Elizabeth Kübler-Ross, Carol Gilligan.
Main ideas and terms to know:

~Be sure to have an understanding of all of the major personality theorists:

**Psychoanalytic** (Freud, Jung, Adler, Horney, Erikson):

~**Freud:** Three components of personality: id, ego, superego
  - pleasure principle  • reality principle  • ideal/conscience
  - wish fulfillment  • libido Defense mechanisms:
  - repression  • regression  • rationalization
  - denial  • reaction formation  • displacement
  • projection  • sublimation

**Psychosexual Stages of Development**

<table>
<thead>
<tr>
<th>Oral (0-2)</th>
<th>Anal (2-4)</th>
<th>Phallic (4-6)</th>
<th>Latency (6-pub.)</th>
<th>Genital</th>
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<tr>
<td>Oral Fixation</td>
<td>anal retentive</td>
<td>Oedipal Complex</td>
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<td>anal expulsive</td>
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<td>Penis Envy</td>
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<td>Castration complex</td>
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**Other Freudian terms:**
- free association  • identification  • Freudian slip
- dream analysis (manifest & latent content)

~**Carl Jung:** Analytic Psychology
  - personal unconscious  • collective unconsciousness
  - archetypes  • opposing forces

~**Alfred Adler:** Individual Psychology
  - striving for superiority  • inferiority complex
  - birth order effects

~**Karen Horney:**
  - insecurity  • basic anxiety  • basic hostility
  - coping mechanisms (moving towards people, moving against people, moving away from people)

~**Erik Erikson:** Eight Ages of Man

The Humanists: Carl Rogers, Abraham Maslow

~**Rogers:** person centered theory
  - self-concept  • unconditional positive regard

~**Maslow:** Hierarchy of Needs
  - Physiological, Safety, Belongingness, Esteem, Self Actualization* (*less than 1% reach full self actualization)
  - Peak experiences
The Behaviorists and Cognitive-Social Learning Theorists:

~B.F. Skinner, Albert Bandura
• Operant conditioning • observational learning • modeling
• reciprocal determinism • locus of control (internal vs. external)

The Trait Theorists:

~Gordon Allport, William Sheldon, Hans Eysenck
• Body types: endomorph, mesomorph, ectomorph (Sheldon)
• Big Five: Emotional stability, extroversion, openness, agreeableness, conscientiousness

~Understand the various methods for measuring and assessing personality:
• Projective tests: Rorschach, TAT
• Personality inventories: MMPI, CPI, Briggs-Myers

~Understand the relationship between stress and health
• stress • stressor • General Adaptation Syndrome (GAS)
• Type A and Type B personalities • biofeedback

Types of conflict:
approach-approach, approach-avoidance, avoidance-avoidance, double approach-avoidance.

Names to Know:
Sigmund Freud, Alfred Adler, Carl Jung, Karen Horney,
Erik Erikson, Carl Rogers, Abraham Maslow, Gordon Allport,
B.F. Skinner, Albert Bandura, Hans Eysenck, William Sheldon,
Hans Selye.
Abnormal Psychology

Main ideas and terms to know:

~Understand the debate surrounding diagnostic labeling:

- medical model
- Rosenhan study
- DSM IV
- M’Naughton Rule
- criteria for determining disordered behavior (atypical, disturbing, maladaptive, unjustifiable)

~Understand the characteristics of all of the major psychological disorders (know their symptoms & other diagnostic features):

Anxiety Disorders:
- Phobias
  - specific phobia
  - social phobia
- agoraphobia
- Obsessive-compulsive disorder (ocd)
- Post-traumatic stress disorder (ptsd): acute, chronic, with delayed onset
- Generalized anxiety disorder (“free-floating anxiety”)
- panic attacks

Schizophrenia:
- psychotic disorder
  - not multiple personality
  - delusions
- hallucinations
  - disorganized speech
  - ”word salad”
- disorganized behavior
  - catatonic behavior
  - positive vs. negative sym.
- delusions of grandeur
  - persecutorial delusions
- echolalia & echophraxia
- subtypes: paranoid, disorganized, catatonic, undifferentiated
- dopamine hypothesis
  - hypo-frontality hypothesis

Mood Disorders:
- Major depressive disorder
- manic disorder
- dysthymic & cyclothymic disorder
- bipolar disorder
  - ”flight of ideas”
- learned helplessness
- serotonin & norepinephrine
- cortisol
- sleep disturbances

Dissociative Disorders:
- dissociative amnesia
  - dissociative fugue
  - dissociative identity disorder
- Types of amnesia: localized, selective, generalized, continuous, systematized
- understand the controversy surrounding D.I.D. (formerly MPD)

Somatoform Disorders:
- conversion disorder
  - hypochondriasis
  - somatization disorder

Developmental Disorders:
- Autism
  - Savant syndrome
  - Conduct Disorder
  - AD/HD

Personality Disorders:
- Paranoid
  - Schizoid
  - Antisocial
- Borderline
  - Histrionic
  - Narcissistic
- Avoidant
  - Dependent
  - Obsessive-Compulsive
Treatment of Disorders

~Understand the major types of psychotherapies:

Psychoanalysis:
• Freud
• free association
• catharsis
• transference

Humanist: Person-centered therapy (or client centered)
• Rogers
• non-directive therapy
• unconditional positive regard
• warmth, empathy, genuineness, positive regard, active listening skills

Behavioral:
• Aversion therapy
• Systematic desensitization
• Token economy

Cognitive:
• Rational-Emotive Therapy (RET)
• Albert Ellis
• Aaron Beck, cognitive therapy for depression

~Know the various chemotherapies (drug therapy):
be able to associate the major drugs with the types of illnesses that they are used for; also
have an understanding of how the drugs work

Antidepressants: most work by enhancing effects of seratonin and norepinephrine
MAO inhibitors mop up norepinephrine and serotonin at the synapse

Tricyclics (TCA’s): blocks the reuptake of norepinephrine & serotonin at presynaptic
(sending) terminals

Selective Seratonin Reuptake Inhibitors (SSRI’s): blocks the reuptake of only seratonin –
Prozac

Lithium Carbonate: a salt used to treat bipolar disorder

Antipsychotic Drugs: most work as dopamine antagonists
• Thorazine - relieves positive symptoms, causes tardive dyskinesia
• Clozaril - relieves positive and negative symptoms

Anti-anxiety Drugs: Benzodiazapenes (Central nervous system depressants)
• Valium
• Librium

Other Biomedical Therapies:
• Ritalin (stimulant used to treat AD/HD)
• ECT (Electroconvulsive Therapy): used to treat severe depression
• Psychosurgery: Prefrontal Lobotomy
• Bilateral Cingulotomy (new procedure used for OCD)

Note: growth in use of drug therapies beginning in 1960s led to the trend known as
deinstitutionalization.

Names to Know: Ellis, Beck, Kanner, Rosenhan
Social Psychology

Main ideas and terms to know:

~The structure and function of groups
  • Norms
  • Roles
  • Social Dilemma/Social trap
  • Role conflict

~Factors of group influence
  • Conformity (Solomon Asch)
  • Informational pressure
  • Normative social pressure

~Factors that lead to conformity
  • Obedience
  • Milgram’s study
  • De-individuation
  • Social facilitation
  • Social loafing
  • Group polarization effect
  • Risky-shift phenomenon
  • Groupthink

~Attribution theory
  • Dispositional vs. situational attributions
  • Fundamental attribution error
  • Primacy effect

~Attitudes and Attitude Change
  • Cognitive-dissonance theory (Festinger)
  • Foot-in-the-door technique
  • Door-in-the-face technique
  • High ball technique

~Stereotypes, prejudice, racism, and Discrimination
  • Illusory correlation
  • In-group/out-group bias
  • Scapegoat theory
  • Just-world hypothesis
  • Types of aggression
  • Frustration-aggression hypothesis

~Social traps
  • Prisoner game
  • Zero-sum game
  • Halo effect
  • Attraction
  • Mere-exposure effect
  • Altruism
  • Bystander effect
  • Social exchange
  • Zimbardo’s Prison experiment

Names to Know: Milgram, Asch, Janus, Festinger, Kitty Genovese (Latane and Darley)