

Main

~Unit 0: Scientific Research and Statistical Methods

- In a perfect normal distribution, all central modes of tendency will be equivalent.
- Range is not a central mode of tendency.
- The IRB (Institutional Review Board) is in charge of ensuring that experiments follow the ethical considerations.
- Negatively skewed = tail to the left; smaller outlier and mean
- Positively skewed = tail to the right; higher outlier and mean
- When given distributions and trying to figure out means and standard deviations (comparing two graphs), make sure you LOOK at the numbers
- Directionality problem - cannot determine which variable causes change in the other
- Random sampling → generalization to public
- Random assignment → similar people per group due to minimizing confounding and cause and effect
- Descriptive research describes behaviors but doesn't establish specific cause/effect relationships
- For AAQs...
 - Specify the type of survey (correlational)

~Unit 1 Part 1: Nervous System and the Brain

- Cerebellum is affected by alcohol - little brain
- Electroencephalography is EEG
- STRUCTURE: MRI, CT/CAT, fMRI, PET
- ACTIVITY: EEG, fMRI, PET, CT/CAT
- Motor cortex is for voluntary movement
- Thalamus reroutes sensory information to the somatosensory cortex
- Twin and adoption studies require epigenetics
- Epigenetics requires the understanding of chemical flags in DNA are present to know which ones will be turned on or off during environmental changes or conditions
- Dendrites absorb neurotransmitters and axon terminal release them (sometimes absorbed through reuptake)
- Wernicke's area is for comprehension, Broca's area is for production, and temporal is hearing in general
- Central and peripheral are the systems and then the autonomic, parasympathetic, sympathetic, and somatic are engulfed or results IN them
- In split brain: Left hemisphere is responsible for speaking (can speak; BROCA'S AREA) and the right hemisphere cannot, it can only draw for the left hemisphere to then speak it.

- **Neuroplasticity changes the number of neural communications, neurons, dendrites, and rate of the neural firing.**
 - Reorganizing and strengthening connections specifically

~Unit 1 Part 2: Drugs and Sleep

- Preconscious is not at the moment, while subconscious is in the moment
- Opioid is a depressant; marijuana is a depressant and hallucinogen.
- Body is paralyzed during sleep to prevent you from acting out your dreams
- NREM1 goes into theta waves for NREM 2.
- NREM1 is considered being asleep and you're going to wet the bed in NREM 3.
- Artificial pain killers are bad because they force you to take more of the drug.
- Ecstasy is a stimulant AND hallucinogen.
- Caffeine and adderall are stimulants and opioids are depressants.
- System 1 is for UNCONSCIOUS knowledge and system 2 is for CONSCIOUS knowledge.
- Examples of each drug:
 - Depressants: Alcohol, marijuana, opioids, nicotine, advil (ANTAGONISTS)
 - Stimulants: Heroin, caffeine, cocaine, meth, and adderall (AGONISTS; increased steronin)
 - Hallucinogen: Ecstasy and marijuana (REROUTES)
 - Opioids: Opioids (PAIN KILLERS)
- From the test... night terrors are more common in young children

~Unit 1 Part 3: Sensation and Perception

- Auditory cortex is where sound messages are sent to in the brain
 - Don't need to worry much about
- Kinesthetic Sense - awareness of your body's movement and position
 - Influenced by proprioceptors, which are located in the joints, tendons, and muscles to send messages into the brain.
- Vestibular Sense - control of brain fluid movement to maintain balance
- Transduction Processes: Receptors → neural impulses → brain
 - Smell: Smell receptors → olfactory nerve → olfactory bulb → olfactory cortex → amygdala → hippocampus
 - Taste: Taste buds → temporal cortex
 - Hearing: Eardrums → cochlea → ear hairs
 - Sight: Cornea → Pupil/Iris → Lens → Retina → Cones/Rods → optic nerve

- Touch (PAIN): Gate theory
- Pain is felt for survival and drawing attention to the area and pain is suppressed for fight/flight
- Opponent theory affects the after image effect - opposite colors cannot be sent more than once at a time by receptors and you see the opposite
- Cerebellum is associated with movement
- Messages are blocked in the brain stem to paralyze you during REM sleep
- Smell is not rerouted to and from the thalamus (only sense not routed)
- Neuroplasticity - changing and reorganizing the brain based on environmental stimuli and experiences

Review in Class Notes:

Opponent Process Theory: Receptors are responsible for each color

- Cones and rods (white and black)
- Cones that see blue and yellow, green and red, they cannot send signals of both colors at the same time.
 - After image effect - if you look at one color for a really long time, you will see its OPPOSITE

Trichromatic Theory: Color specific receptors

- Color specific rods and cones because there are three different types
- Every other color that you see is a combination of these colors
- Theories of Colorblindness: Missing some receptors
 - If you have yellow and red, but not blue receptors, you're going to have trouble seeing red and green

Frequency Perceptions:

Place Theory - places in the cochlea that are responsible for hearing different frequencies

- Base of cochlea is responsible for high frequency and high pitch
- Spirals of cochlea is responsible for low frequency and low pitch

Frequency Theory - it's the amount of times that our neurons send signals that affect frequency

- Amount of signals sent determine the frequency
- You can only fire a 1000 times per second

Volley Theory - because neurons can fire so fast, we can have different neurons firing consecutively so you can achieve greater than 1000 between MANY neurons instead of one

Neurological Conditions:

Synesthesia: Senses intertwine

- One environmental stimuli will trigger more than one sense
- Gustation + olfaction at the same time
- Vision + hear/smell (when seeing a painting)

Prosopagnosia: Face blindness

- Jennifer Aniston and their daughter cannot be recognized
- They cannot recognize their faces - issue with their perception and they have no mechanisms who and what that face is
- They can remember based on their clothing options, voices, where they are in the room, etc
- Impairment in the brain - altering your perception

Phantom Limb Sensation: Sensations coming from an amputated limb

- Only happens in people who are missing limbs
- Sensations coming from a limb that is amputated and no longer there
- We don't know why these signals are sent by the brain but there are nerve signals that are being sent from the nerves near the amputated limbs

Gate Theory: Transmission of pain through openings and blockings

- Base of the spine can block signals (spoke about this during the REM sleep stage)
- Sometimes we want to block pain signals for fight or flight or to enter a state of shock
- Sometimes we allow to feel pain to protect ourselves
- Don't need to know the specifics of the size of the hairs

~Unit 2: Part 1: Intelligence

- Convergent and divergent thinking are both creative thinking where divergent thinking is thinking of many different ideas and convergent thinking comes up with the best idea out of all of them.
- Triarchic Theory: Practical, analytical, and creative thinking
- The **Flynn Effect** is the increase of IQ over the course of many generations due to advancements in technology. **Another reason would be increased exposure to education.**
- As someone grows older, their IQ decreases because their mental age IQ remains the same as their chronological age increases.
 - This was NOT discovered by Flynn.
- **Assimilation** is when a current situation fits with a schema while **accommodate** is when you change it to incorporate new information.
- Heuristics having NOTHING TO DO WITH SCHEMAS.
 - **Representative heuristics** is a mental shortcut that associates events with our prototypes or stereotypes with little regard for statistical information.
 - **Availability heuristic** is a mental shortcut that causes us to overestimate the likelihood of the occurrence of an event.
- Divergent thinking = multiple ideas

- 8 intelligences: Spatial, natural, logical, musical, kinesthetic, interpersonal, intrapersonal, linguistic
- Founders of IQ Theories:
 - *Gardener = 8 intelligences
 - *Sternberg = triarchic theory
 - Spearman = general intelligence
 - Cattell = fluid vs. crystallized
- Crystallized intelligence uses old knowledge to solve problems while fluid intelligence is being able to solve novel problems.
- Heuristics = estimation
- Things that make a test acceptable are standardization, reliability, and validity.
- Purpose of standardized testing: Finding learning gaps, serve as a comparison, and evaluate student achievement.
 - NOTHING TO DO WITH RELIABILITY OR VALIDITY.
- Purpose of IQ tests: Measure people's potential ability and intelligence for their age
- Standardized tests is to compare performance while IQ tests are to determine individual performance

~Unit 2: Part 2: Memory

- **Proactive Interference** = Old memories affect **new** memories (in the present)
- **Retrospective Interference** = New memories affect **old** memories (in the past)
- Retrograde Amnesia = Cannot recall old memories
- Anterograde Amnesia = Cannot form new memories
- Working memory is the process of interpreting and manipulating information through the central executive, phonological loops, and visuospatial sketchpad to help make its way to long term memory.
- Short term memory only stores a small amount of information and long term memory can store a larger amount of information.
- Context Effect is based on the SETTING in which you learned and retrieved the information.
- State-Dependent Effect is based on INTERNAL FEELINGS in which you learned and retrieved the information.
- Knowing the words is SEMANTIC while listening and then repeating the words is ECHOIC.
- IONIC is seeing and ECHOIC is listening.
 - ECHOIC lasts longer than IONIC.
- The working model is NOT LINEAR while the multi-store model is LINEAR.

~Unit 3: Part 1: Development

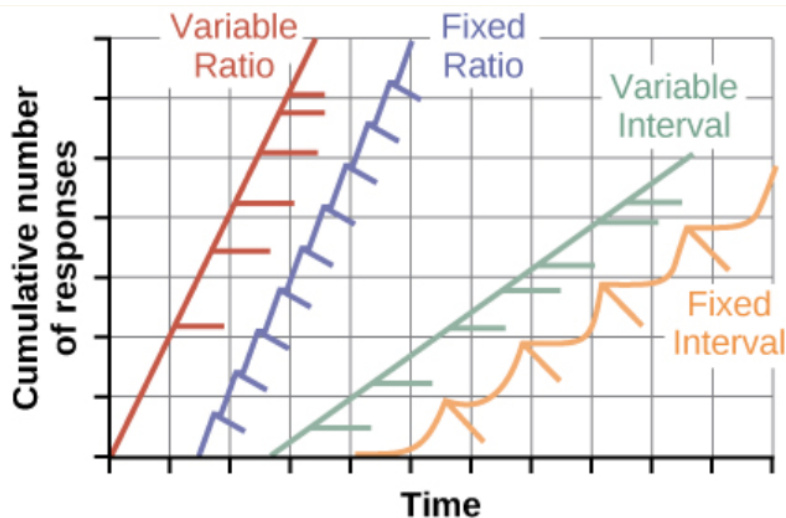
- Grammar is the set of rules that help you communicate and understand others.
 - SENTENCE STRUCTURE
- Semantics are the set of rules that you use to understand the meaning of words.
 - MEANING OF THE WORDS IN THE SENTENCE
- Crystallized intelligence generally INCREASES as you grow older; does not remain stable/the same
- Ecological Systems Theory examples:
 - Microsystem: friends + family + teachers
 - Mesosystem: interactions between microsystem
 - Exosystem: government policies + work schedules + mass media
 - Macrosystem: societal and cultural trends
 - Chronosystem: social media + pandemics
- Teratogens are alcohol, drugs, and medications that can cause cognitive disabilities and birth defects to the fetus/baby.
- The motor skills babies develop: grasping, crawling, swallowing (improved), and later walking
- The reflexes babies already have developed: babinski, moro/startle, and rooting
- Erik Erikson's stages of development were not supposed to be like a linear ladder (more diagonal if anything) and happens based on EGO CHANGES.
 - Honestly, just think about age association for the questions
- Generativity = job change for fulfillment
- Number of phonemes is determined by number of sounds
- Number of morphemes is determined by prefix, suffix, and base
 - Unreachable = un-reach-able
 - Greeters = greet-er-s

~Unit 3: Part 1: Learning

- Vicarious learning needs practice and repetition.
 - **Learning by observing the consequences**
 - **ANYTHING WITH CONSEQUENCES = VICARIOUS**
- The order of effectiveness in the scheduling are...
 - Variable ratio
 - Fixed ratio
 - Variable interval
 - Fixed interval
- Gambling/lottery is an example of a variable ratio

- Secondary reinforcers are neutral stimuli that people believe have an association with primary reinforcers (ex. money).
- Acquisition is when the neutral stimulus is paired with the unconditioned stimulus to elicit a conditioned response
- Variability will always be the more effective type of learning schedule.
- Intervals are only associated with time.
- Cognitive maps = latent learning
- Taste aversions are a universal survival mechanism
- The unconditioned stimulus elicits an unconditioned response. The unconditioned stimulus is merged with the neutral stimulus to create an unconditioned response and a conditioned stimulus through acquisition which will evoke a conditioned response.
- Researchers:
 - Kolher = insight learning with chimpanzees
 - Tolman = latent learning with rats in the maze
 - Thorndike = law of effect with cats in the box
 - Skinner = operant conditioning with pigeons in the box
 - Pavlov = classical conditioning with the dogs and bells
 - Bandura = observational learning with the Bobo dolls for aggression
 - Seligman = learned helplessness with dogs and the barriers
- Taking away money = negative punishment

You must remember this graph...



- Straight lines for variable, but bumpy lines for fixed

From the Jeopardy:

- Associative learning occurs when two or more things are paired, which can elicit fear.
- Secondary reinforcers need to be learned while primary are innate

- Superstitious behaviors: consequences reinforce unrelated behaviors
- Discrimination - CR is not elicited to a similar stimuli to the CS (UCS + NS)

~Unit 4: Part I: Social Psychology

- The solution to cognitive dissonance will not always be changing the attitude/thought, but it can also be changing the behavior (depending on the situation).
- Asch = answering questions experiment
- Milgram = obedience experiment
- Stanford Prison Experiment = showed obedience
- Obedience is changing behaviors based on a higher authority's demand while compliance is agreeing to a request from another party.
- Foot in the door and door in the face
- Foot in the door is continuous asks for commitment while lowballing is more of financial situations where you agreed to do something for much less than you thought it was going to be
- You've had some misconceptions about some things...
 - Deindividuation: In social groups, you lose self-consciousness and become more likely to engage in mob-like behaviors
 - Mere Exposure Effect: Having a preference for something after being exposed to it multiple times (ex. Babies liking to see people of their own race as opposed to people different of their race)
 - Prejudice vs. discrimination vs. stereotypes
 - Prejudice: A feeling/attitude that you have towards someone or something
 - Disliking females
 - Discrimination: This is the behavior is separating or excluding groups based on prejudice
 - Hiring male over females/preferring male over females
 - Stereotypes: Common generalizations and beliefs held about a particular group of people that can cause prejudice
 - Females are weak
 - Stereotypes → prejudice → discrimination
 - Headaches are apparently external attributes???
- **Topics covered:**
 - Conformity
 - Information, normative, bystander, social reciprocity, social norm, inhibition, and facilitation
 - Groupthink, group polarization, and deindividuation

- Aggression
 - Environmental effects - Bandura
 - Biological effects - hormones
 - Frustration
- Persuasion
 - Rhetorical devices (ethos, pathos, and logos), ELM, central and peripheral routes
 - Compliance: Foot in the door, door in the face, lowballing
- Attribution
 - Dispositional vs. situational, false attribution error, self-serving, self-fulfilling prophecy
 - Just world, halo
- Prejudice + Discrimination
 - Stereotypes, implicit bias, prejudice, discrimination

~Unit 4 Part II: Personalities

- Facial expressions are universally understood while gestures are culturally specific (due to display rules)
- Self-actualization needs good self-concept and unconditional positive regard
- Broad Theories:
 - Personality: Behaviors shaped by rewards and punishments from various experiences
 - Psychoanalysis: Unconscious mind can reveal how people with disorders can be helped
 - Traits: Subset of personalities and the strength of them is what makes personalities different; they are constant and stable
 - Humanistic: Self-concept and one's perception of themselves will determine their ability to self-actualize; studies the uniqueness of each person
- Personalities can be influenced by genetics AND environment.
- Personalities are the different patterns of behavior, feelings, and emotions that one has while traits are the subsets of personalities.
 - PERSONALITIES are DIFFERENT for each person
 - TRAITS are the SAME for each person, but their STRENGTH DIFFERS, so it's MEASUREABLE

TERMS YOU MUST REMEMBER:

- Factor Analysis: Placing behaviors into clusters
- TAT + Rorschach Inkblot: Used for psychoanalysis

- TAT: Individuals tell ambiguous stories to determine their unconscious motive
- Rorschach Inkblot: 10 images used to determine one's personality, unconscious mind, and emotions
- Reciprocal determinism: The person, behavior, and environment interact with each other to determine patterns of behavior based on rewards and punishments.
- Lange Theory: Physiological response comes before emotions
- Bard Theory: Physiological response and emotions happen simultaneously after the stimulus is presented
- Schachter 2 Theory: Physiological response and cognitive appraisal (and labeling the emotion) happen before feeling the emotion
- Cognitive Appraisal: Identifying the emotion you will feel through interpretation of a stimulus

Topics Covered:

- Personality: Different patterns of behavior and feelings
 - Psychoanalysis
 - Unconscious
 - Preconscious
 - Conscious
 - Freud Slips
 - Free Association
- Humanistic Theory: What makes people self-actualize and unique
 - Self-concept
 - Ideal-self
 - Self-image
 - Self-worth
 - Unconditional positive regard
 - Self-actualization
 - Defense Mechanisms:
 - Denial
 - Repression
 - Reaction Formation
 - Projection
 - Displacement
 - Regression
 - Sublimation
- Trait Theory: Makes up personalities
 - Big 5 Personalities

- Openness
 - Conscientious
 - Agreeableness
 - Extraversion
 - Neuroticism
 - Forer Effect
- Social Cognitive Theory: Environment influences
 - Expectancy Value Theory
 - Reciprocal Determinism
 - Self-efficacy
 - Perception of themselves is more important than reality
 - Differs per person
 - Internal vs. external locus of control
- Motivation: Desire to achieve something
 - Drive-Reduction
 - Self-Determination
 - Incentive
 - Instinct
 - Motivation Conflicts Theory
 - Avoidance-avoidance
 - Approach-approach
 - Avoidance-approach
 - Arousal
 - Yerkes-Dodson Theory
 - Sensation Seeking
 - Experience seeking
 - Thrill seeking
 - Disinhibition
 - Boredom
- Emotions: Feelings
 - Theories:
 - Langes: response before
 - Bard: happens at the same time
 - Schacter 2: response + cognitive appraisal before
 - Facial Feedback Hypothesis
 - Broaden and build
 - Universal emotions vs. display rules

~Unit 4 Part II: Stress

- Distress = shut down (breakdown)
- Eustress = motivation to do something (studying and practicing)
- Problem focused coping is for events that ARE within your own control
- Emotion focused coping is for events that ARE NOT within your own control
- Problem focused coping manages the stressor itself while emotion focused coping doesn't.
 - Ex. Family member is sick, breakups, etc.
- Tend and befriend theory is used for establishing social connections
- Martin Seligman → father of positive psychology
 - Felt like he needed to focus on this because past scientists were only focusing on negative problems
- Subjective Well-Being: LEVEL OF CONTENTNESS WITH LIFE
- Gratitude = pro-social behaviors, happier, less depression, better social relationships, positive outlook on life
- Signature Strengths = Use to help others, strengthen relationships with others, higher happiness, boosting self-esteem
- Example of Post-Traumatic Growth: Car accident causes you to drive more safely, lecture others on the importance of driving safely, and being more appreciative of living in the moment
- Amygdala = stress response (fight or flight)
- Prefrontal lobe = thinker
- Ways to increase well-being
 - Gratitude → journaling/savoring/writing letters
 - Savoring
 - Forgiveness
 - Post-traumatic Growth
 - Meaningful life
 - Accepting Emotions

Unit 5 Part 2: Clinical Psychology

- Agoraphobia: Fear of being in the marketplace, which may cause panic attacks
- Bipolar disorders persist for a long period of time solely for mania and depressive episodes; BORDERLINE PD persists for a long time where there are extreme fluctuations between self-image, mood, and relationships.
- Diathesis Stress Model: People have a predisposition to disorders that are triggered from environmental stressors.
- Schizophrenic symptoms:

- Avolition - lack of motivation
- Anhedonia - lack of pleasure
- Delusion of reference - things are being directed towards you
- Delusion of love - someone loves you even though you never met them
- Delusion of persecution - people are plotting against you
- Delusion of grandeur - you're superior to others
- Disassociative Identity Disorder = separate identities, causing memory loss and emotional detachment, which is usually used as a coping mechanism from trauma
- Disassociative Amnesia = forgetting personal information because of the immense trauma (memory gaps)
- Autism = difficulties in carrying out social interactions because of genetic predisposition (repeated and restricted communication)
- 5 Ethical Guidelines:
 - Beneficence and maleficence - benefit patient + do no harm
 - Justice - fairness and justice for you and other; allow people to have access to the therapy
 - Integrity - trustworthiness
 - Respect for people's rights and dignity - rights of privacy and responsibility
 - Fidelity and responsibility - professionalism
- Dopamine is what causes hallucinations, so that's what's being suppressed in antipsychotics.
- Compulsions = uncontrollable actions taken due to immense anxiety
- Tardive dyskinesia is a movement disorder
- Electroconvulsive therapy = biological perspective (electrical currents to impact brain activity)
- Rational Emotive Behavior Therapy (essentially cognitive restructuring) and Dialectal Behavior Therapy (coping mechanism)

Ways to Help Memorize

Unit 1 Part 1:

Nervous System - coordinates bodily functions

- Central Nervous System - brain and spinal cord
- Peripheral Nervous System - sensory signals connected to central
 - Motor - movements
 - Sensory - senses
- Reflex Arc - directly to spinal cord
- Somatic Nervous System - voluntary movements
- Autonomic Nervous System - non-voluntary movements
 - Sympathetic Nervous System - fight or flight
 - Parasympathetic Nervous System - calm down

Nature vs. Nurture

- Nature - genetics
- Nurture - environment
- Heritability - impact of genetics
- Epigenetics - changes by environment

Neuron - nerve cells

- Dendrites - absorbs messages
- Soma - cell body
- Axon - passageway
- Axon Terminals - releases/absorbs neurotransmitters
- Myelin Sheath - protects axon
- Glial Cells - makes up myelin sheath
- Neural Firing - neuron communication
- Action Potential - firing of neuron
- All-or-Nothing Principle - actional potential either happens or no
- Threshold - electric charge
- Reuptake - reabsorption of neurotransmitters
- Refractory Period - rest

Neurotransmitters vs. Hormones

- Neurotransmitters - fast and specific chemical messengers
 - Endorphins - happiness
 - Acetylcholine - muscle and memory
 - Substance P - pain
 - Norepinephrine - fight or flight
 - GABA - **relaxation**
 - Dopamine - pleasure
 - Serotonin - appetite, mood, and sleep

- Glutamate - **learning and cognition**
- Hormones
 - Adrenaline - fight or flight
 - Ghrelin - hunger
 - Melatonin - sleep
 - Leptin - fat
 - Oxytocin - love

The Brain

- Brainstem - brain and spinal cord
 - Medulla Oblongata - voluntary movements
 - The Pons - voluntary movements
- Limbic - inside of pink squiggly lines
 - Thalamus - sensory
 - Hypothalamus - regulates everything (sleep, hunger, appetite) - h for homeostasis
 - Pituitary Gland - hormones
 - Amygdala - fight or flight
 - Hippocampus - memory
- Cerebellum - little brain; **voluntary movements**
- Right Hemisphere - left side
- Left Hemisphere - right side
- Corpus Callosum - fibers between hemispheres
- Cerebral Cortex - outer part of brain; lobes
 - Gyri - upper
 - Sulci - lower
 - Frontal Lobes - decision making
 - Motor Cortex - motor functions
 - Somatosensory Cortex - sensory
 - Broca's Area - lip movement
 - Werniche's Area - understanding speech
 - Parietal Lobes - pain
 - Occipital Lobes - visual
 - Temporal Lobes - **hearing speech**

Agonists vs. Antagonists

- Agonists - promotes neurotransmitter reactivity
- Antagonists - prohibits of neurotransmitter reactivity

Unit 3 Part 2:

Researchers:

- Kohler - insight learning with chimpanzees
- Tolman - latent learning with rats in the mazes
- Thorndike - law of effect with cats in puzzle box
- Skinner - operant conditioning with pigeons in puzzle box
- Pavlov - classical conditioning with dogs and bells
- Bandura - observational learning with Bobo dolls for aggression among children
- Segelman - learned helplessness with dogs and barriers

Types of Learning Methods:

- Insight learning - realization
- Latent learning - learning without trying until warranted; cognitive maps
- Operant conditioning/law of effect - learning is controlled through consequences in terms of punishment and reinforcement
 - Schedules:
 - Continuous - reinforcement every time target response is reached
 - Partial - reinforcement after a certain amount of time/number
 - Variable Ratio - after an uncertain number of times
 - Fixed Ratio - after a certain number of times
 - Variable Interval - after an uncertain amount of time
 - Fixed Interval - after a certain amount of time
 - Reinforcements/Punishments:
 - Positive Reinforcement - reward (add something good) to encourage
 - Negative Reinforcement - take away something bad to encourage
 - Positive Punishment - punish (add something bad) to discourage
 - Negative Punishment - take away something good to discourage
 - Vicarious learning - learning through understanding the consequences of certain actions
 - Superstitious Behaviors - developed from consequences that reinforce unrelated behaviors
- Classical Conditioning - learning through forced training and association between the conditioned stimulus to the unconditioned stimulus, causing a conditioned response.
 - Unconditioned stimulus - evokes a natural response
 - Unconditioned response - the natural response to unconditioned stimulus
 - Neutral stimulus - associated with unconditioned stimulus through acquisition; not supposed to elicit a response
 - Conditioned stimulus - product of the unconditioned and neutral stimulus

- Conditioned response - trained response to the conditioned stimulus
- Observational learning - learning through model (watching and practicing)
- Learned Helplessness - discouragement in learning from previous failures

Miscellaneous:

- Association - pairing
- Acquisition - unconditioned stimulus + neutral stimulus = conditioned stimulus
- Generalization - inability to differentiate conditioned stimulus from similar stimulus, thus exhibiting the conditioned response
- Discrimination - differentiation between conditioned stimulus and other similar stimulus, thus not having a conditioned response
- Primary reinforcers - innate; not learned
- Secondary reinforcers - need to be learned; associated with primary

How to

AAQ:

- 1) Identify the research method
 - a) Correlational research - finds a relationship, but not causation
 - b) Experiment - finds causation, manipulates
 - c) Naturalistic observation - observes
 - d) Case study - in depth study about one individual (or a small group)
- 2) Identify the operational definition
 - a) Literally restate the measurement from the packet
- 3) Statistics
 - a) Interpretation of something (usually)
 - i) Mean = average
 - ii) Statistic Deviation = each sample deviates by about this much from the mean
 - b) Difference between the means
 - i) Just compare the differences of the statistical average between the two groups and say which one is averaging higher
- 4) Identify the ethical guideline
 - a) Do no harm**
 - b) Discontinued participation
 - c) Informed consent
 - d) Debrief
 - e) Confidentiality**
- 5) Explain whether or not the research findings are generalizable
 - a) When “no”
 - i) Not large enough sample size
 - ii) Age restrictions
 - iii) Lack of diversity in sample
 - b) When “yes”
 - i) Complete opposite of the above
- 6) Explain how the hypothesis is supported or refuted from the research findings
 - a) Identify a research finding
 - b) Explain how it supports or refutes the hypothesis

EBQ:

*Three studies are presented

- 1) Make a claim
 - a) Be specific
- 2) Evidence Paragraph #1

- a) State a piece of evidence that supports your claim - cite from the source
 - b) Explain how the evidence supports your claim
 - c) Use an AP Psychology concept to support your evidence
- 3) Evidence Paragraph #2
 - a) Do the same thing as the first one, but use a different psychological concept/theme to support your evidence