

# AP Psychology Study Guide

## History and Approaches (2-4%)

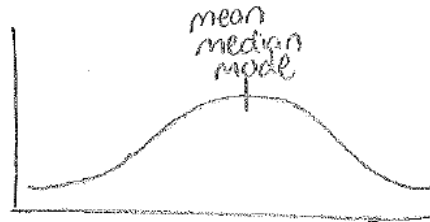
- **Psychology is derived from physiology (biology) and philosophy**
- **EARLY APPROACHES**
  - **Structuralism** – used **INTROSPECTION** (act of looking inward to examine mental experience) to determine the underlying **STRUCTURES** of the mind
  - **Functionalism** – need to analyze the **PURPOSE** of behavior
- **APPROACHES KEY WORDS**
  - **Evolutionary** – Genes
  - **Humanistic** – free will, choice, ideal, actualization
  - **Biological** – Brain, NTs
  - **Cognitive** – Perceptions, thoughts
  - **Behavioral** – learned, reinforced
  - **Psychoanalytic/dynamic** – unconscious, childhood
  - **Sociocultural** – society
  - **Biopsychosocial** – combo of above
- **PEOPLE:**
  - **Mary Calkins:** First Fem. Pres. of APA
  - **Charles Darwin:** Natural selection & evolution
  - **Dorothea Dix:** Reformed mental institutions in U.S.
  - **Stanley Hall:** 1<sup>st</sup> pres. of APA 1<sup>st</sup> journal
  - **William James:** Father of American Psychology – functionalist
  - **Wilhelm Wundt:** Father of Modern Psychology – structuralist
  - **Margaret Floy Washburn** – 1<sup>st</sup> fem. PhD
  - **Christine Ladd Franklin** – 1<sup>st</sup> fem.

## Research Methods (8-10%)

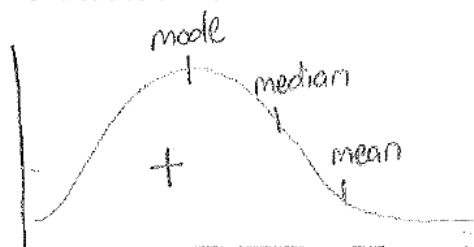
- **EXPERIMENT:** Adv: researcher controls variables to establish **cause and effect** Disadv: difficult to generalize
  - **Independent Variable:** manipulated by the researcher
    - **Experimental Group:** received the treatment (part of the IV)
    - **Control Group:** placebo, baseline (part of the IV)
    - **Placebo Effect:** show behaviors associated with the exp. group when having received placebo
    - **Double-Blind:** Exp. where neither the participant or the experimenter are aware of which condition people are assigned to
  - **Dependent Variable:** measured variable (is **DEPENDENT** on the independent variable)
- **Operational Definition:** clear, precise, typically quantifiable definition of your variables – allows **replication**
- **Confound:** error/ flaw in study

- **Random Assignment:** assigns participants to either control or experimental group at random – minimizes bias, increase chance of equal representation
- **Random Sample:** method for choosing participants – minimizes bias
- **Validity:** accurate results
- **Reliability:** same results every time
- **NATURALISTIC OBSERVATION:** Adv: real world validity (observe people in their own setting) Disadv: No cause and effect
- **CORRELATION:** Adv: identify relationship between two variables Disadv: No cause and effect  
(**CORRELATION DOES NOT EQUAL CAUSATION**)
  - **Positive Correlation** – Variables vary in the same direction
  - **Negative Correlation** – variables vary in opposite directions
  - **The stronger the # the stronger the relationship REGARDLESS of the pos/neg sign**
- **CASE STUDY:** Adv: Studies ONE person (usually) in great detail – lots of info Disadv: No cause and effect
- **DESCRIPTIVE STATS:** shape of the data
  - **Measures of Central Tendency:**
    - **Mean:** Average (use in normal distribution)
    - **Median:** Middle # (use in skewed distribution)
    - **Mode:** occurs most often

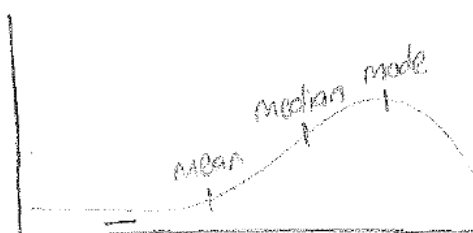
### Normal Distribution:



### Positive Skew:



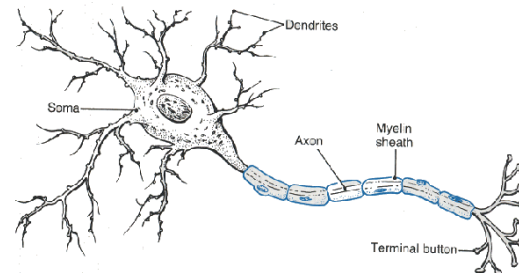
### Negative Skew:



- **INFERENTIAL STATISTICS:** establishes significance (meaningfulness) Significant results = **NOT** due to chance
- **ETHICAL GUIDELINES (APA)**
  - Confidentiality
  - Informed Consent
  - Debriefing
  - Deception must be warranted

## Biological Basis (8-10%)

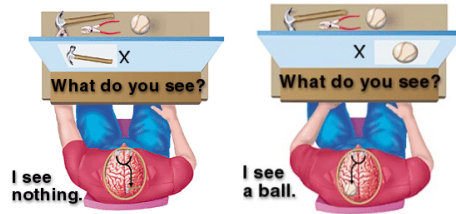
- **NEURON:** Basic cell of the NS
  - **Dendrites:** Receive incoming signal
  - **Soma:** Cell body (includes nucleus)
  - **Axon:** AP travels down this
  - **Myelin Sheath:** speeds up signal down axon
  - **Terminals:** release NTs – send signal onto next neuron
  - **Synapse:** gap b/w neurons
- **Action Potential:** movement of sodium and potassium ions across a membrane sends an electrical charge down the axon
  - **All or none law:** stimulus must trigger the AP past its threshold, but does not increase the intensity of the response (flush the toilet)
  - **Refractory period:** neuron must rest and reset before it can send another AP (toilet resets)



- **Sensory neurons – receive signals**
- **Afferent neurons – Accept signals**
- **Motor neurons – send signals**
- **Efferent neurons – signal Exits**

- **CENTRAL NS:** Brain and spinal cord
- **PERIPHERAL NS:** Rest of the NS
  - **Somatic NS:** Voluntary movement
  - **Autonomic NS:** Involuntary (heart, lungs, etc)
    - **Sympathetic NS:** Arouses the body for fight/flight (generally activates)
    - **Parasympathetic NS:** established homeostasis after a sympathetic response (generally inhibits)
- **NEUROTRANSMITTERS (NTS):** Chemicals released in synaptic gap, received by neurons
  - **GABA:** Major inhibitory NT
  - **Glutamate:** Major Excitatory NT
  - **Dopamine:** Reward & movement
  - **Serotonin:** Moods and emotion

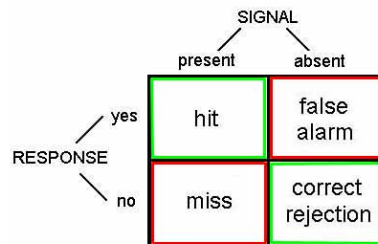
- **Acetylcholine (ACh):** Memory
- **Epinephrine & Norepinephrine:** sympathetic NS arousal
- **Endorphins:** pain control, happiness
- **Oxytocin:** love and bonding
- **Agonist:** drug that mimics a NT
- **Antagonist:** drug that blocks a NT
- **Reuptake:** Unused NTs are taken back up into the sending neuron. SSRIs (selective serotonin reuptake inhibitors) block reuptake – treatment for depression
- **AREAS OF THE BRAIN:**
  - **Hindbrain:** oldest part of the brain
    - **Cerebellum** – movement (what does it take to ring a bell)
    - **Medulla** – vital organs (HR, BP)
    - **Pons** – sleep/arousal (Ponzzzzzz)
  - **Midbrain**
    - **Reticular formation:** attention (if you can't pay attention, **You R F'd**)
  - **Forebrain:** higher thought processes
    - **Limbic System**
      - **Amygdala:** emotions, fear (Amy, da! You're so emotional!)
      - **Hippocampus:** memory (if you saw a hippo on campus you'd remember it!)
    - **Thalamus:** relay center
    - **Hypothalamus:** Reward/pleasure center, eating behaviors
    - **Broca's Area:** Inability to produce speech (Broca – Broken speech)
    - **Wernicke's Area:** Inability to comprehend speech (Wernicke's what?)
    - **Cerebral Cortex:** outer portion of the brain – higher order thought processes
      - **Occipital Lobe:** located in the back of the head - vision
      - **Frontal Lobe:** decision making, planning, judgment, movement, personality
      - **Parietal Lobe:** located on the top of the head - sensations
      - **Temporal Lobe:** located on the sides of the head (temples) – hearing and face recognition
      - **Somatosensory Cortex:** map of our sensory receptors – in parietal lobe
      - **Motor Cortex:** map of our motor receptors – located in frontal lobe
  - **Corpus Callosum:** bundle of nerves that connects the 2 hemispheres – sometimes severed in patients with severe seizures – leads to “split-brain patients”
    - **Lateralization:** the brain has some specialized features – language is processed in the L Hemisphere
    - **Split-brain experiments:** done by Sperry & Gazzanaga.
      - Images shown to the right hemisphere will be processed in the left (& vice versa), patient can verbally identify what they saw



- **BRAIN PLASTICITY:** Brain can “heal” itself
- **NATURE VS. NURTURE: ANSWER IS BOTH**
  - **Twin Studies:**
    - Identical twins – Monozygotic (MZ)
    - Fraternal twins – Dizygotic (DZ)
  - **Genetics:** MZ twins will have a higher percentage of also developing a disease
  - **Environment:** MZ twins raised in different environments show differences
- **ENDOCRINE SYSTEM:** sends hormones throughout the body
  - **Pituitary Gland:** Controlled by hypothalamus. release growth hormones
  - **Adrenal Glands:** related to sympathetic NS: releases adrenaline

## Sensation & Perception (6 – 8%)

- **ABSOLUTE THRESHOLD:** detection of signal 50% of time (is it there)
- **DIFFERENCE THRESHOLD (also called a just noticeable difference (JND) and follows WEBER'S LAW:** two stimuli must differ by a constant minimum proportion. (Can you tell a change?)
- **SIGNAL DETECTION THEORY**



- **Sensory Adaptation:** diminished sensitivity as a result of constant stimulation (can you feel your underwear?)
- **Perceptual Set:** tendency to see something as part of a group – speeds up signal processing
- **Inattentional Blindness:** failure to notice something b/c you're so focused on another task (gorilla video)
- **Cocktail party effect:** notice your name across the room when it's spoken, when you weren't previously paying attention
- **VISUAL SYSTEM:**
  - **Pathway of vision:** light → cornea → pupil/iris → lens → retina → rods/cones → bipolar cells → ganglion cells → optic nerve → optic chiasm → occipital lobe

- **Cornea** – protects the eye
- **Pupil/iris** – controls amount of light entering eye
- **Lens** – focuses light on retina
- **Fovea** – area of best vision (cones here)
- **Rods** – black/white, dim light
- **Cones** – color, bright light
- **Bipolar cells** – connect rods/cones and ganglion cells
- **Ganglion cells** – opponent-processing occurs here
- **Blind spot** – occurs where the optic nerve leaves the eye
- **Feature detectors** – specialized cells that see motion, shapes, lines, etc. (experiments by Hubel & Weisel)
- **THEORIES OF COLOR VISION:**
  - **Trichromatic** – three cones for receiving color (blue, red, green)
    - Explains color blindness - they are missing a cone type
  - **Opponent Process** – complementary colors are processed in ganglion cells – explains why we see an after image
- **Visual Capture:** Visual system overwhelms all others (nauseous in an IMAX theater – vision trumps vestibular)
- **Constancies:** recognize that objects do not physically change despite changes in sensory input (size, shape, brightness)
- **Phi Phenomenon:** adjacent lights blink on/off in succession – looks like movement (traffic signs with arrows)
- **Stroboscopic movement:** motion produced by a rapid succession of slightly varying images (animations)
- **MONOCULAR CUES (how we form a 3D image from a 2D image)**
  - **Interposition:** overlapping images appear closer
  - **Relative Size:** 2 objects that are usually similar in size, the smaller one is further away
  - **Relative Clarity:** hazy objects appear further away
  - **Texture Gradient:** coarser objects are closer
  - **Relative Height:** things higher in our field of vision look further away
  - **Linear Perspective:** parallel lines converge with distance (think railroad tracks)
- **BINOCULAR CUES:** (how both eyes make up a 3D image)
  - **Retinal Disparity:** Image is cast slightly different on each retinal, location of image helps us determine depth
  - **Convergence:** Eyes strain more (looking inward) as objects draw nearer
- **TOP-DOWN PROCESSING:** Whole → smaller parts
- **BOTTOM-UP PROCESSING:** Smaller Parts → Whole

- **AUDITORY SYSTEM:**

- Pathway of sound: sound → pinna → auditory canal → ear drum (tympanic membrane) → hammer, anvil, stirrup (HAS) → oval window → cochlea → auditory nerve → temporal lobes
- Outer Ear: pinna (ear), auditory canal
- Middle Ear: ear drum, HAS (bones vibrate to send signal)
- Inner Ear: cochlea – like COCHELLA (sounds 1<sup>st</sup> processed here)

- **THEORIES OF HEARING:** both occur in the cochlea

- Place theory – location where hair cells bends determines sound (high pitches)
- Frequency theory – rate at which action potentials are sent determines sound (low pitches)

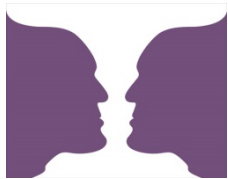
- **OTHER SENSES:**

- Touch: Mechanoreceptors → spinal cord → thalamus → somatosensory cortex
- Pain: Gate-control theory: we have a “gate” to control how much pain is experienced
- Kinesthetic: Sense of body position
- Vestibular: Sense of balance (semicircular canals in the inner ear effect this)
- Taste (gustation): 5 taste receptors: bitter, salty, sweet, sour, umami (savory)
- Smell (olfaction): Only sense that does NOT route through the thalamus 1st. Goes to temporal lobe and amygdala

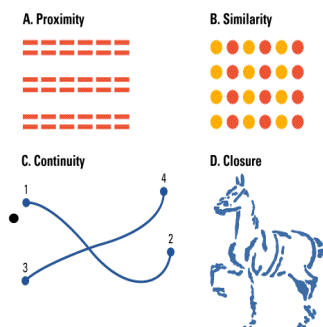
- **GESTALT PSYCHOLOGY:** Whole is greater than the sum of its parts

- **Gestalt Principles:**

- Figure/ground: organize information into figures objects (figures) that stand apart from surrounds (back ground)



- Closure: tendency to mentally fill in gaps
    - Proximity: tendency to group things together that appear near each other
    - Similarity: tendency to group things together based off of looks
    - Continuity: tendency to mentally form a continuous line



## States of Consciousness (2 – 4%)

- **STATES OF CONSCIOUSNESS:**

- Higher-Level: controlled processes – totally aware
- Lower-Level: automatic processing (daydreaming, phone numbers)
- Altered States: produced through drugs, fatigue, hypnosis
- Subconscious: Sleeping and dreaming
- No awareness: Knocked out
- **METACOGNITION:** Thinking about thinking

- **SLEEP:**

Beta Waves: awake

Alpha Waves: high amp., drowsy

Stage 1: light sleep

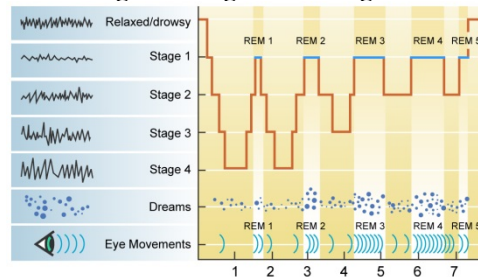
Stage 2: bursts of sleep spindles

Stage 3 (delta waves): Deep sleep

Stage 4: extremely deep sleep

Rapid Eye Movement (REM): dreaming

Entire cycle takes 90 minutes, REM occurs inb/w each cycle. REM lasts longer throughout the night



- **CIRCADIAN RHYTHM:** 24 hour biological clock

- Body temp and awareness change due to this
- Controlled by the Suprachiasmatic nucleus (SCN) in the brain
- Explains jet lag

- **SLEEP DISORDERS**

- **Insomnia:** Inability to fall asleep (due to stress/anxiety)
- **Sleep walking:** (due to fatigue, drugs, alcohol)
- **Night terrors:** extreme nightmares – NOT in REM sleep – typical in children
- **Narcolepsy:** fall asleep out of nowhere (due to deficiency in orexin)
- **Sleep Apnea:** stop breathing suddenly while asleep (due to obesity usually)

- **DREAM THEORIES:**

- **Freud's Unconscious Wish**

**Fulfillment:** Dreaming is gratification of unconscious desires and needs

▪ **Latent Content:** hidden meaning of dreams

▪ **Manifest Content:** obvious storyline of dream

- **Activation Synthesis:** Brain produces random bursts of energy – stimulating lodged memories. Dreams start random then develop meaning

- **HYPNOSIS**

- **It Can:** Reduce pain, help you relax
- **It CANNOT:** give you superhuman strength, make you regress, make you do things against your will

- **PSYCHOACTIVE DRUGS:**

- **Triggers dopamine release in the brain**
- **Depressants:** Alcohol, barbiturates, tranquilizers, opiates (narcotics)
  - Decrease sympathetic NS activation, highly addictive
- **Stimulants:** Amphetamines, Cocaine, MDMA (ecstasy), Caffeine, Nicotine
  - Increase sympathetic NS activation, highly addictive
- **Hallucinogens:** LSD, Marijuana
  - Causes hallucinations, not very addictive
- **Tolerance:** Needing more of a drug to achieve the same effects
- **Dependence:** Become addicted to the drug – must have it to avoid withdrawal symptoms
- **Withdrawal:** Psychological and physiological symptoms associated with sudden stoppage. Unpleasant – can kill you.

## Learning (7-9 %)

- **CLASSICAL CONDITIONING:**  
**PAVLOV!**

- **Unconditioned Stimulus (US):** brings about response w/o needing to be learned (food)
- **Unconditioned Response (UR):** response that naturally occurs w/o training (salivate)
- **Neutral Response (NS):** stimulus that normally doesn't evoke a response (bell)
- **Conditioned Stimulus (CS):** once neutral stimulus that now brings about a response (bell)
- **Conditioned Response (CR):** response that, after conditioning, follows a CS (salivate)
- **Contiguity:** Timing of the pairing, NS/CS must be presented immediately BEFORE the US
- **Acquisition:** process of learning the response pairing
- **Extinction:** previously conditioned response dies out over time
- **Spontaneous Recovery:** After a period of time the CR comes back out of nowhere
- **Generalization:** CR to like stimuli (similar sounding bell)
- **Discrimination:** CR to ONLY the CS



- **CONTINGENCY MODEL: Rescorla & Wagner** – classical conditioning involves cognitive processes
- **CONDITIONED TASTE AVERSION (ONE-TRIAL LEARNING): John Garcia** – Innate predispositions can allow classical conditioning to occur in one trial (food poisoning)
- **COUNTERCONDITIONING: Little Albert and John Watson (father of behaviorism)** – conditioned a fear in a baby (only to countercondition – remove it- later on)
  - **OPERANT CONDITIONING: SKINNER!**
- **LAW OF EFFECT (Thorndike):** Behaviors followed by pos. outcomes are strengthened, neg. outcomes weaken a behavior (cat in the puzzle box)
- **PRINCIPLES OF OPERANT COND:**
  - **Pos. Reinforcement:** Add something nice to increase a behavior (gold star for turning in HW)
  - **Neg. Reinforcement:** Take away something bad/annoying to increase a behavior (put on seatbelt to take away annoying car signal)
  - **Pos. Punishment:** Add something bad to decrease a behavior (spanking)
  - **Neg. Punishment:** Take away something good to decrease a behavior (take away car keys)
  - **Primary Reinforcers:** innately satisfying (food and water)
  - **Secondary Reinforcers:** everything else (stickers, high-fives)
    - **Token Reinforcer:** type of secondary- can be exchanged for other stuff (game tokens or money)
  - **Generalization:** respond to similar stimulus for reward
  - **Discrimination:** stimulus signals when behavior will or will not be reinforced (light on means response are accepted)
  - **Extinction / Spontaneous Recovery:** same as classical conditioning
  - **Premack Principle:** high probability activities reinforce low probability activities (get extra min at recess if you everyone turns in their HW)
  - **Overjustification Effect:** reinforcing behaviors that are intrinsically motivating causes you to stop doing them (give a child 5\$ for reading when they already like to read – they stop reading)
  - **Shaping:** use successive approximations to train behavior (reward desired behaviors to teach a response – rat basketball)
  - **Chaining:** tie together several behaviors

- **Continuous Reinforcement schedule:** Receive reward for every response
- **Fixed Ratio schedule:** Reward every X number of response (every 10 envelopes stuffed get \$\$)
- **Fixed Interval schedule:** Reward every X amount of time passed (every 2 weeks get a paycheck)
- **Variable Ratio schedule:** Rewarded after a random number of responses (slot machine)
- **Variable Interval schedule:** Rewarded after a random amount of time has passed (fishing)
- **Variable schedules are most resistant to extinction** (how long will keep playing a slot machine before you think its broken?)
  - **SOCIAL (OBSERVATIONAL) LEARNING: BANDURA!**
- **Modeling Behaviors:** Children model (imitate) behaviors. Study used BoBo dolls to demonstrate the following
- **Prosocial** – helping behaviors
- **Antisocial** – mean behaviors
  - **MISC LEARNING TYPES**
- **Latent learning (Tolman!)** – learning is hidden until useful (rats in maze get reinforced half way through, performance improved)
  - **Cognitive maps** – mental representation of an area, allows navigation if blocked
- **Insight learning (Kohler!)** – some learning is through simple intuition (chimps with crates to get bananas)
- **Learned Helplessness (Seligman!)** – no matter what you do you never get a positive outcome so you just give up (word scrambles)

Cognition  
(8 – 10%)

#### **ENCODING: Getting info into memory**

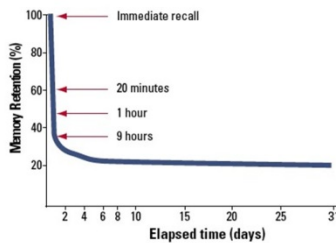
- **Automatic encoding** – requires no effort (what did you have for breakfast?)
- **Effortful encoding** – requires attention (school work)
- Shallow, intermediate, deep processing: the more emphasis on MEANING the deeper the processing, and the better remembered
- **Imagery** – attaching images to information makes it easier to remember (shoe w/ spaghetti laces)
- **Self-referent encoding** – we better remember what we're interested in (you'd remember someone's phone number who you found extremely attractive)
- **Dual encoding** – combining different types of encoding aids in memory
- **Chunking** – break info into smaller units to aid in memory (like a phone #)

- **Mnemonics** – shortcuts to help us remember info easier
  - Acronyms – using letter to remember something (PEMDAS)
  - Method of loci – using locations to remember a list of items in order
- **Context dependent memory** – where you learn the info you best remember the info (scuba divers testing)
- **State dependent memory** – the physical state you were in when learning is the way you should be when testing (study high, test high)
- **STORAGE: Retaining info over time**
- **Information Processing Model** – Sensory memory, short term memory, long term memory model
- **Sensory Memory** – stores all incoming stimuli that you receive (first you have to pay attention)
  - **Iconic Memory** – visual memory, lasts 0.3 seconds
  - **Echoic Memory** – auditory memory, lasts 2-3 seconds
- **Short Term Memory** – info passes from sensory memory to STM – lasts 30 secs, and can remember  $7 \pm 2$  items
  - **Rehearsal** (repeating the info) resets the clock
- **Working Memory Model** splits STM into 2 – visual spatial memory (from iconic mem) and phonological loop (from echoic mem). A “central executive” puts it together before passing it to LTM
- **Long term memory** – lasts a life time
  - **Explicit (Declarative):** Conscious recollection
    - **Episodic:** events
    - **Semantic:** facts
  - **Implicit (Nondeclarative):** unconscious recollection
    - **Classical conditioning**
    - **Priming:** info that is seen earlier “primes” you to remember something later on (octopus, assassin, climate, bogeyman)
    - **Procedural:** skills
- **Memory organization**
  - **Hierarchies:** memory is stored according to a hierarchy
  - **Semantic networks:** linked memories are stored together
  - **Schemas:** preexisting mental concept of how something should look (like a restaurant)
- **Memory storage**
  - **Acetylcholine neurons in the hippocampus** for most memories
  - **Cerebellum** for procedural memories

- **Long-term potentiation:** neural basis of memory – connections are strengthened over time with repeated stimulation (more firing of neurons)

### RETRIEVAL: Taking info out of storage

- **Serial Position Effect:** tendency to remember the beginning and the end of the list best
- **Recall:** remember what you've been told w/o cues (essays)
- **Recognition:** remember what you've been told w/ cues (MC)
- **Flashbulb memories:** particularly vivid memories for highly important events (9/11 attacks)
- **Repressed memories:** unconsciously buried memories – are unreliable
- **Encoding failure:** forget info b/c you never encoded it (paid attention to it) in the first place (which is the real penny)
- **Encoding specificity principle:** the more closely retrieval cues match the way we learned the info, the better we remember the info (like state dependent memory)
- **Forgetting curve:** recall decreases rapidly at first, then reaches a plateau after which little more is forgotten (**EBBINGHAUS**)



- **Proactive interference:** old info blocks new
- **Retroactive interference:** new info blocks old
- **Misinformation effect:** distortion of memory by suggestion or misinformation (**Loftus** – lost in the mall, Disney land)
- **Anterograde amnesia:** amnesia moves forward (forget new info – 50 first dates)
- **Retrograde amnesia:** amnesia moves backwards (forget old info)
- **ALZHEIMER'S DISEASE:** caused by destruction of acetylcholine in hippocampus

### LANGUAGE

- **Phonemes:** smallest unit of sound (ch sound in chat)
- **Morpheme:** smallest unit that carries meaning (syllable)
- **Grammar:** rules in a language that enable us to communicate
- **Semantics:** set of rules by which we derive meaning (adding –ed makes something past tense)
- **Syntax:** rules for combining words into sentences (white house vs casa blanca)

- **Babbling stage:** infants babble 1<sup>st</sup> stage of speech
- **One-word stage:** duh
- **Two-word stage:** duh duh
- **Theories of language development:**
  - **Imitation:** Kids repeat what they hear – but they don't do it perfectly
    - **Overregularization:** grammar mistake where children over use certain morphemes (I go-ed to the park)
  - **Operant conditioning:** reinforced for language use
  - **Inborn universal grammar:** theory comes from **NOAM CHOMSKY** – says that language is innate and we are predisposed to learn it
  - **Critical period:** period of time where something must be learned or else it cannot ever happen (language must be learned young – Genie the Wild Child)
  - **Linguistic determinism:** language influences the way we think (Hopi people do not have words for the past, thus cannot easily think about the past) developed by **WHORF**

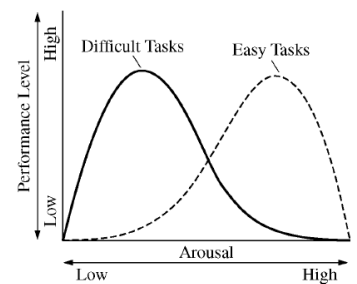
### THINKING

- **Concepts:** mental categories used to group objects, events, characteristics
- **Prototypes:** all instances of a concept are compared to an ideal example (what you first think of)
- **Algorithms:** step by step strategies that guarantee a solution (formula)
- **Heuristics:** short cut strategy (rule of thumb)
  - **Representative Heuristic:** make inferences based on your experience (like a stereotype) – assume someone must be a librarian b/c they're quiet
  - **Availability heuristic:** relying on availability to judge the frequency of something (over estimating death due to plane crashes due to recent events)
- **Functional Fixedness:** keep using one strategy – cannot think outside of the box
- **Belief bias:** tendency of one's preexisting beliefs to distort logical reasoning by making invalid conclusions
- **Belief perseverance:** tendency to cling to our beliefs in the face of contrary evidence
- **Inductive reasoning:** data driven decisions, general → specific
- **Deductive reasoning:** driven by logic, specific → general
- **Divergent thinking:** ability to think about many different things at once

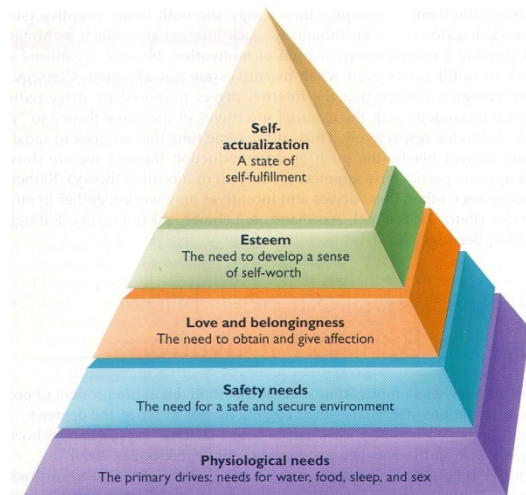
## Motivation & Emotion (6-8%)

### THEORIES OF MOTIVATION

- **INSTINCT:** complex behaviors have fixed patterns and are not learned (explains animal motivation)
- **DRIVE REDUCTION:** physiological need creates aroused tension (drive) that motivates you to satisfy the need (driven by **homeostasis:** equilibrium)
  - **Primary drive:** unlearned drive based on survival (hunger, thirst)
  - **Secondary drive:** learned drive (wealth or success)
- **OPTIMUM AROUSAL:** humans aim to seek optimum levels of arousal – easier tasks requires more arousal, harder tasks need less



- **HIERARCHY OF NEEDS:** theory derived by **MASLOW** – needs lower in the pyramid have priority over needs higher in the pyramid



- **Intrinsic motivation:** inner motivation – you do it b/c you like it
- **Extrinsic motivation:** motivation to obtain a reward (trophy)

## HUNGER

- **Signals of hunger:**
  - Stomach contractions tell us we're hungry
  - **Glucose** (sugar) level is maintained by the **pancreas (endocrine system)**.
  - **Insulin** decreases glucose. Too little glucose makes us hungry.
  - **Orexin** is released by the **hypothalamus** – telling us to eat.
  - Other chemicals include **ghrelin, obestatin, and PPY**
  - **Lateral hypothalamus:** when stimulated makes you hungry, when lesioned you will never eat again. (I'm LATE for lunch. I'm hungry. The **LATERal hypothalamus** makes you hungry.)
  - **Ventromedial hypothalamus:** when stimulated you feel full, when destroyed you eat eat eat eat (fat woman and cake)
  - **Leptin:** leptin signals the brain to reduce appetite
- **Obesity:**
  - Increased risk of **heart attack, hypertension, atherosclerosis, diabetes**
  - Can be genetic – adopted children resemble their biological parents
  - **Set point:** there is a control system that dictates how much fat you should carry – every person is different
- **Eating Disorders:**
  - **Anorexia:** weight loss of at least 15% ideal weight, distorted body image
    - **Causes:** overly critical parents, perfectionist tendencies, societal ideals
  - **Bulimia:** usually normal body weight, go through a binge-purge eating pattern (eat massive amounts, then throw up)
    - **Causes:** same as anorexia

## SEXUALITY

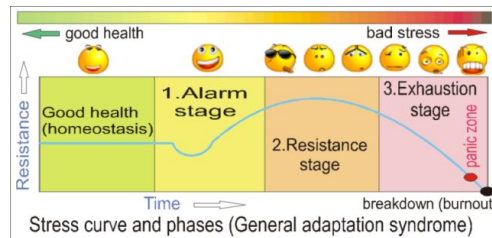
- **Biology of sex:**
  - **Hypothalamus:** stimulation increases sexual behavior, destruction leads to sexual inhibition
  - **Pituitary gland:** monitors, initiates, and restricts hormones
    - **Males – testosterone**
    - **Females – estrogen**
  - **Sexual Response Pattern:** Excitement phase, plateau, orgasm, refractory period (resolution phase) (cannot “fire” again until you reset, guys only)
  - **Alfred Kinsey:** 1<sup>st</sup> researcher to conduct studies in sex, suggested that people were very promiscuous. Studies lacked a representative sample, created scale of homosexuality
  - **Homosexuality:** biological roots: differences in the brain, identical twins more likely to both be gay, later sons more likely to be (hormones from mom)

## THEORIES OF EMOTIONS

- **JAMES-LANGE:** stimulus → physiological arousal → emotion
- **CANNON-BARD:** stimulus → physiological arousal & emotion simultaneously
- **SCHACTER TWO FACTOR:** adds in cognitive labeling (bridge experiment) stimulus → arousal → interpret external cues → label emotion
- Some stimuli are routed directly to the **amygdala** bypassing the frontal cortex (gut reaction to a cockroach)
- **Behavioral factors:** there are **SIX** universal emotions (happiness, anger, sadness, surprise, disgust, fear) seen across ALL cultures
- **Non-verbal cues:** gestures, duchenne smile (you can tell a real smile from a fake one)
- **Facial feedback hypothesis:** being forced to smile will make you happier (facial expressions influence emotion)

## STRESS AND HEALTH

- **GENERAL ADAPTATION SYNDROME (GAS):** three phases of a stress response (**SELYE** came up w/ this)
  - **Alarm:** body/you freak out in response to stress
  - **Resistance:** body/you are dealing with stress
  - **Exhaustion:** body/you cannot take any more, give up



- **Type A Personality:** rigid, stressful person, perfectionist. At risk for heart disease
  - **Type B Personality:** laid back, nonstressed.
- ### INDUSTRIAL/ORGANIZATIONAL PSYCH
- **Industrial / Organizational Psych:** psychological of the workplace – focuses on employee recruitment, placement, training, satisfaction, productivity
  - **Ergonomics / Human Factors:** intersection of engineering and psych – focuses on safety and efficiency of human-machine interactions
  - **Hawthorne effect:** productivity increases when workers are made to feel important
  - **Theory X management:** manager controls employees, enforces rules. Good for lower level jobs
  - **Theory Y management:** manager gives employees responsibility, looks for input. Good for high level jobs

- **Employee Commitment:**
  - Affective: emotional attachment (best type)
  - Continuance: stay due to costs of leaving
  - Normative: stay due to obligation (they paid for your school)
- **Meaning of Work:**
  - Job – no training, just do it for \$\$.
  - Career – work for advancement. Some happiness
  - Calling – work because you love it. Lotsa happiness

## Development (7-9%)

- **Prenatal Development:**
  - **Zygote:** 0 – 14 days, cells are dividing
  - **Embryo:** until about 9 weeks, vital organs being formed
  - **Fetus:** 9 wks to birth, overall development
  - **Teratogens:** external agents that can cause abnormal prenatal development (alcohol, drugs, etc)
    - **Fetal alcohol syndrome (FAS):** large amount of alcohol leads to FAS, causes deformities, mental retardation, death
- **Physical Development:**
  - **Maturation:** natural course of development, occurs no matter what (walking)
  - **Reflexes:** innate responses we're born with
    - Rooting, sucking, swallowing, grasping, stepping
  - **Habituation:** after continual exposure you pay less attention – used to test babies
  - **Eyes have the most limited development, takes till 1 year**
    - **Visual cliff:** babies have to learn depth perception, so they will cross a “cliff”
  - **Other senses are fairly developed**
  - **Brain development continues for a few years**
- **JEAN PIAGET'S COGNITIVE DEV.**
- **Schemas** – concepts or frameworks that organize info
- **Assimilation:** incorporate new info into existing schema (aSSimilation – same stuff)
- **Accommodation:** adjust existing schemas to incorporate new information (ACcommodation - All Change)
- **Sensorimotor Stage:** Birth to 2 years: **focused on exploring the world around them**
  - **Lack Object Permanence:** Objects when removed from field of view are thought to disappear (peek-a-boo)
  - **Dev. Sense of Self:** by 2 yrs can recognize themselves in the mirror

- **Pre-operational Stage: 2 – 7 years:** use pretend play, developing language, using intuitive reasoning
  - **Lack Conservation:** recognize that substances remain the same despite changes in shape, length, or position (girls with juice in glasses)
  - **Lack Reversibility:** cannot do reverse operations (count out both 4+2 and 2+4)
  - **Are egocentric:** inability to distinguish one's own perspective from another's – think everyone sees what they see
- **Concrete Operational Stage: 7-11 yrs:** use operational thinking, classification, and can think logical in concrete context
- **Formal Operational Stage: 11-15 yrs:** use abstract and idealist thoughts, hypothetical-deductive reasoning
- **Problems with Piaget's theory:** stages to discrete, dev. differs b/w kids
- **VYGOTSKY'S THEORY:** cognitive development is a social process too, need to interact w/ others
  - **Zone of Proximal Development:** gap b/w what a child can do on their own and w/ support. Need scaffolding (teachers)
- **SOCIOEMOTIONAL DEVELOPMENT**
- **Temperament:** patterns of emotional reactions and babies (precursor to personality)
- **Imprinting:** baby geese believe the first thing they see after hatching is their mom – happens during a **critical period** (from LORENZ)
- **HARRY HARLOW:** discovered that contact comfort is more important than feeding (monkeys fed on wire or cloth mothers). Monkeys raised in isolation couldn't socialize
- **MARY AINSWORTH:** developed the **strange situation paradigm** (children left alone in a room w/ a stranger, then reunited w/ mom – determines your attachment style)
  - **Secure attachment (60% of infants):** upset when mom leaves, easily calmed on return. Tend to be more stable adults
  - **Avoidant attachment (20% infants):** actively avoids mom, doesn't care when she leaves
  - **Ambivalent attachment (10% infants):** actively avoids mom, freaks out when she leaves
  - **Disorganized attachment (5%):** confused, fearful, dazed – result of abuse
- **BAUMRIND:** parenting styles
  - **Authoritarian:** rules & obedience, “my way or the highway” – kids lack initiative in college
  - **Permissive:** kids do whatever – no rules – kids lack initiative in college
  - **Authoritative:** give and take w/ kids – kids become socially competent and reliable
- **KOHLBERG'S MORAL DEV**
  - **Preconventional morality:** Children: they follow rules to avoid punishment
  - **Conventional morality:** adolescents: follow rules b/c rules exist to keep order
  - **Postconventional morality:** adults: they do what they believe is right (even if it goes against society)
- **Carol Gilligan:** said moral reasoning and moral behaviors are two different things (what you say isn't always what you do)
- **ERIKSON'S SOCIOEMOTIONAL DEV.** : 8 stages, each stage represents a crisis that must be resolved, results in competence or weakness
  - **Trust vs Mistrust (birth – 18 months):** if needs are dependably met infants dev basic trust
  - **Autonomy vs shame&doubt (1 -3 yrs):** toddlers learn to exercise their will and think for themselves
  - **Initiative vs guilt (3-6 yrs):** learn to initiate tasks and carry out plans
  - **Industry vs inferiority (6 yrs to puberty):** learn the pleasure of applying themselves to tasks
  - **Identity vs role confusion: (adolescence thru 20s):** refine a sense of self by testing roles and forming an identity
  - **Intimacy vs isolation: (20s—40s):** form close relationships and gain capacity for love
  - **Generativity vs stagnation: (40s-60s):** discover sense of contributing to the world, thru family & work
  - **Integrity vs despair: (60s and up):** reflect on your life, feel satisfaction or failure
- **PUBERTY!** (rapid skeletal and sexual maturation)
  - **Primary sex characteristics:** necessary structures for reproduction (ovaries, testicles, vagina, penis)
  - **Secondary sex characteristics:** nonreproductive characteristics that dev during puberty (breasts, hips, deepening of voice, body hair)
  - **Frontal lobe continuous dev (not fully developed till 25)**
- **GENDER DEVELOPMENT:** sex = chromosomes, gender = what you identify yourself as
  - **Gender roles:** expected behaviors (norms) for men/women
  - **Social learning theory:** we learn gender roles and identity from those around us
- **AGING:**
  - **Cellular clock theory:** cells have a maximum # of divisions before they can't divide anymore
  - **Free-radical theory:** unstable oxygen molecules w/in cells damage DNA
  - **Over time skills decrease** (reaction time, memory)

- **CROSS-SECTIONAL STUDY:** studies ppl of different ages at the same point in time
  - **Adv:** inexpensive & quick
  - **Disadv:** can be differences due to generational gap
- **LONGITUDINAL STUDY:** studies same ppl over time
  - **Adv:** eliminates groups differences, lots of detail
  - **Disadv:** expensive, time consuming, high drop out rates
- **Stages of Grief** (crap btw)
  - **Denial:** “this can't be happening”
  - **Anger:** “why me?”
  - **Bargaining:** “just let me live to see my kids graduate”
  - **Depression:** “why bother”
  - **Acceptance:** “its going to okay”
- **Problem-focused coping:** solving or doing something to alter the course of stress (planning, acceptance)
- **Emotion-focused coping:** reducing the emotional distress (denial, disengagement)

## Personality (5-7%)

- **PSYCHODYNAMIC EXPLANATION**
- **SIGMUND FREUD** said personality was largely unconscious. Came up w/ the following:
  - **Conscious:** immediate awareness of current environment
  - **Preconscious:** available to awareness (phone #s)
  - **Unconscious:** unavailable to awareness
  - **id:** our hidden true animalistic wants and desires – operates on the pleasure principle, all about rewards and avoiding pain (*devil on your shoulder – entirely unconscious*)
  - **superego:** our moral conscious (*angel on your shoulder, all 3 consciousness*)
  - **ego:** reality principle, has to deal w/ society, stuck mediating b/w the id and superego (*its you! – conscious and preconscious*)
- **When ego cannot mediate b/w the id and superego, we use defense mechanisms**
  - **Repression:** push memories back into the unconscious mind (sexual abuse is too traumatic to deal w/ so you repress it)
  - **Projection:** attribute personal shortcomings & faults on to others (man who wants to have an affair accuses his wife of having one)
  - **Denial:** refuse to acknowledge reality (refuse to believe you have cancer)
  - **Displacement:** shift feelings from an unacceptable object to a more acceptable one (can't tell at teacher, go home and yell at the dog)



- **Reaction formation:** transform unacceptable motive into his opposite (woman who fears sexual urges becomes a religious zealot)
- **Regression:** transform into an earlier development period in the face of stress (during exam week you start to suck your thumb)
- **Rationalization:** replace a less acceptable reasoning with a more acceptable one (don't get into your college – justify it was a sucky college anyway)

- **Sublimation:** replace unacceptable impulse w/ a socially acceptable one (man w/ strong sexual urges paints nudes. Dexter)

### FREUD'S PSYCHOSEXUAL STAGES

- **Oral stage (0-18 months):** pleasure focuses on the mouth (id)
- **Anal stage (18 – 36 months):** pleasure involves eliminative functions (ego forms)
- **Phallic stage (3 – 6 yrs):** pleasure focuses on genitals (superego forms)
  - **Oedipal complex:** young boys learn to identify w/ their father out of fear of retribution (castration anxiety)
  - **Electra complex:** young girls learn to identify w/ their mother b/c they cannot with their father (penis envy)
- **Latency stage (6 yrs to puberty):** psychic time out – personality is set
- **Genital State (adulthood):** sexual reawakening – oedipal and electra “feelings” are repressed, turn sexual wants onto an appropriate person
- **FIXATION:** can become “stuck” in an earlier stage – influences personality (oral stage smokes/drinks, anal is “anal retentive”, phallic is promiscuous)

### What's wrong w/ Freud theory? –

unverifiable, descriptive not predictive

What's good about it? – 1<sup>st</sup> theory about personality, sparked psychoanalysis

### How do we test this approach?

- **Psychoanalysis:** analyze a person's unconscious motives thru the use of:
  - **Free Association:** say aloud everything that comes to mind w/o hesitation
  - **Transference:** looks for feelings to transferred to psychoanalyst
  - **Dream interpretation:** analyze the manifest (seen message) and latent (hidden messages) content
  - **Projective Tests:** ambiguous stimuli shown to look at your unconscious motives (THESE SUCK B/C THEY ARE VERY SUBJECTIVE)
    - **Thematic apperception test (TAT) :** tell a story about a picture (when someone has a tattoo (tatt) you ask what it means
    - **Rorschach inkblot:** show an inkblot

### NEO-FREUDIANS

- **CARL JUNG:** believed in the *collective unconscious* (shared inherited reservoir of memory – explains common myths across civilizations & time)
- **KAREN HORNEY:** said personality develops in context of social relationships, NOT sexual urges (security not sex is motivation, men get womb envy)

### TRAIT PERSPECTIVE

- **Traits** are enduring personality characteristics, people can be described by these – have strong or weak tendencies. They are stable, genetic, and predict other attributes.
- Use **factor analysis** to find these: statistical procedure used to identify similar components
- **TRAIT THEORIES:**
- **Big Five:** (by Costa & McCrae) (acronym OCEAN) You vary on each of these
  - **Openness :** imaginative, independent, like variety
  - **Conscientiousness:** organized, careful, disciplined
  - **Extraversion:** sociable, fun-loving, affectionate (opposite it **introversion:** shy, timid, reserved)
  - **Agreeableness:** soft hearted, trusting, helpful
  - **Neuroticism (emotional stability):** calm, secure

What's wrong with trait theory? – ignores the role of the situation in behavior

What's good about it? – identifying traits gives us perspectives about careers, relationships, health

### How do we test this approach?

- **MMPI** – helpful for mental health and job placement
- **Myer's Briggs** – gave you 4 letter combo
- What's wrong w/ these tests?
- They're long, social desirability can be an influence, and they're too broad

### HUMANISTIC PERSPECTIVE

- Emphasized personal growth and free will. You don't like yourself? So change!
- **CARL ROGERS:** talked about our *self-concept* (idea of who we are). Your self-concept is the center of your personality
  - **Actual (social) self:** what others see
  - **Ideal (true) self:** who you WANT to be
  - A *positive* self-concept makes us perceive the world positively (optimist)
  - A *negative* self-concept makes us feel dissatisfied and unhappy

What wrong with humanistic theory? –

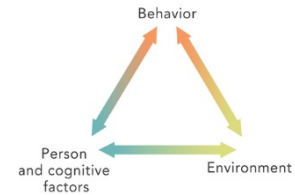
too optimistic about human nature, abstract concepts are difficult to test

What's good about it? – emphasizes conscious experiences and change

- **Individualistic Cultures:** give priorities to own goals over group goals. Define your identity in terms of you (American society)
- **Collectivistic Cultures:** give priority to the goals of the group, your identity is part of that group (China)

### SOCIAL-COGNITIVE PERSPECTIVE

- Behavior is a complex interaction of inner process and environmental influence – which influences personality
- Emphasizes conscious awareness, beliefs, expectations, and goals
- **BANDURA!** Talked about **RECIPROCAL DETERMINISM:** interaction of behavior, cognitions, and environment make up you.



• {I'm outgoing (behavior), I choose to teach b/c it lets me be outgoing (environment), and I have thought this through which is why I teach despite making less money (cognitive)}

- **Self-efficacy:** belief that one can succeed, so you ensure you do
- **Internal locus of control:** you control your own fate
- **External locus of control:** chance / outside forces control your fate
- What's wrong with social-cognitive? – Too specific, cannot generalize
- What's good about it? – Highlights situations, and cognitive explanations of personality
- How do we test it? – Observations & interviews (time consuming)

## Testing & Individual Differences (5-7%)

### Individual Theories about Intelligence

- **GALTON:** 1<sup>st</sup> to suggest intelligence was inherited. Intelligence based on muscle strength, size of head, reaction time, etc.
- **CATTELL:** 2 clusters of mental abilities
  - **Crystallized intelligence:** reasoning and verbal skills - what you learn in school – the cold hard (like crystals!) facts
  - **Fluid intelligence:** spatial abilities, rote memory, things that come natural to you – can't learn in school. Also decrease over time
- **SPEARMAN'S G FACTOR:** said a general intelligence (g) underlies all mental abilities (typical IQ of today)
- **GARDNER:** multiple intelligences (8): linguistic, logical-mathematical, musical, spatial, bodily-kinesthetic, intrapersonal (self), interpersonal (social), naturalist



- **STERNBERG: TRIARCHIC THEORY**

- **Analytical:** mental components to solve problems, what IQ tests assess (book smarts)
- **Practical:** ability to size up new situations and adapt to real-life demands (street smarts)
- **Creative:** intellectual and motivational processes that lead to novel solutions, idea, products

- **BINET:** developed 1<sup>st</sup> intelligence test, combined with **TERMAN** – developed the **STANFORD-BINET IQ TEST**

$$IQ = \frac{\text{mental age}}{\text{chronological age}} \times 100$$

- Chronological age = actual age
- Mental age = tested age compared to other of that age
- 100 is average

- **WECHSLER:** developed the WAIS and WISC – most commonly used today

- **FLYNN effect:** IQ has steadily risen over the past 80 years – probably due to education standards and better IQ tests

- **Extremes of Intelligence:** high IQ = above 135; mentally retarded = below 70

- **Causes of mild retardation:**

- PKU – liver fails to produce an enzyme needed to breakdown chemicals – leads to brain damage
- Down syndrome – extra copy of 21<sup>st</sup> chromosome
- Fragile X – higher chance in boys due to ONE X chromosome

- **Influence on IQ:**

- **Genetics:** MZ twins have similar IQ, adopted kids more similar to biological parents
- **Environment:** early neglect leads to lower IQ, good schooling to higher IQ

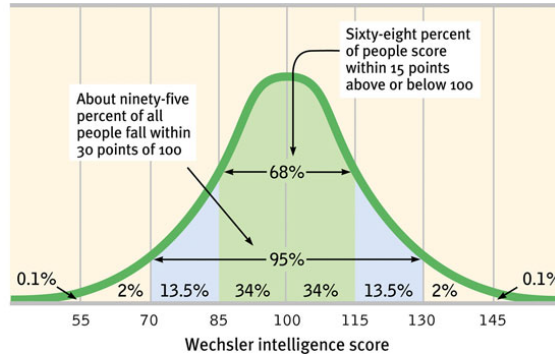
- **Types of Tests:**

- **Aptitude:** predicts your abilities to learn a new skill (ASVAB)
- **Achievement:** tests what you know(SAT)

- **TEST CREATION:**

- **Standardization:** administer a test to a representative sample of future test takers to establish a basis for meaningful comparison (test it out 1<sup>st</sup>)
- Should be **reliable:** same results over time
  - Split-half reliability: compare two halves of the test
  - Test-retest reliability: use the same test on 2 different occasions
- Should be **valid:** test is accurate – measures what it is intended to
  - Content validity: test measures what you want it to (an IQ test actually measures IQ)
  - Predictive validity: test is able to accurately predict a trait (high math scores predicts good engineer)

- Standardized tests establish a normal distribution
- Standard deviations are used to compare scores.
- **Standard deviation** measures how much the scores vary from the mean. The percentages stay the same in every curve



## Abnormal Behavior (7 – 9%)

- **Defining abnormal behavior:**
  - Must be deviant, distressful, and dysfunctional
- **Historical causes:** biology, psychological issues, supernatural issues (demons)
- **Medical model:** emphasizes treatment of disorders, as they have a biological origin. Came through the reformation of institutions in U.S. (**DORTHEA DIX**)
- **Biopsychosocial model:** currently used model – stress biological, psychological, and social causes
- **Diagnosing abnormal behavior:**
  - **DSM:** manual listing all currently accepted psychological disorders. Classifies them based on criteria – provides no explanation of causes or treatments

### ANXIETY DISORDERS

#### Most common disorders in the U.S.

- **Generalized Anxiety Disorder (GAD):** person is generally anxious, all the time, for NO REASON
- **Panic Disorder:** person is prone to frequent panic attacks (feeling like you're having a heart attack). Can come w/ **agoraphobia:** anxiety about being in places you cannot escape (fear of public spaces / people)
- **Phobias:** irrational fear that disrupts your life
- **Obsessive-compulsive Disorder (OCD):** person if overwhelmed with both:
  - **Obsessions:** persistent unwanted thoughts (did I leave the stove on?)
  - **Compulsions:** senseless rituals (hand washing)
- **Post-traumatic stress disorder (PTSD):** characterized by flashbacks, problems w/ concentration, and anxiety following a traumatic event (war, natural disasters)

## CAUSES OF ANXIETY DISORDERS:

- **Psychodynamic:** repressed thoughts & feelings manifest in anxiety and rituals
- **Behaviorist:** fear conditioning leads to anxiety, which is then reinforced. Phobias might be learned through *observational learning*
- **Biological:** natural selection favored those with certain phobias (heights). *Twins* often share disorders. Often see **less GABA** in the brain

### SOMATOFORM DISORDERS

- Psychological disorders w/ no apparent physical cause
  - **Conversion disorder:** loss of feeling or usage of a limb or body part (sight) – absolutely no physiological cause though
  - **Hypochondriasis:** person interprets normal symptoms as a major disease – must disrupt their life

### DISSOCIATIVE DISORDERS

- **Dissociative Identity Disorder:** formerly multiple personalities – person fractures into several distinct personalities who normally have no awareness of each other. **NOT SCHIZOPHRENIA!**
  - Usually caused by traumatic childhood abuse
  - Legitimacy is doubted by some, more common in those w/ good health insurance
  - Treatment involves integration of the personalities
- **Dissociative Fugue:** following a traumatic event a person leaves, taking on a whole new life & personality w/ no memory of the previous one

### MOOD DISORDERS

- **Major depressive disorder:** extreme sadness and despair, apathy towards life, w/ no known cause
- **Dysthymia:** milder form of depression, lasts for *years* (Eeyore!)
- **Bipolar disorder:** bouts of severe depression & manic episodes
  - **Mania:** heightened mood, characterized by risky behaviors, fast talking, flights of ideas
- **Seasonal Affective Disorder (SAD):** form of depression that occurs typically winter – found mostly in Northern areas (Alaska, Ireland) **UNIQUE TREATMENT = LIGHT THERAPY**

### CAUSES OF MOOD DISORDERS

- **Biology:** lower levels of serotonin & norepinephrine linked to depression, higher levels of norepinephrine linked to mania. Runs in families suggesting **GENES**. **Twin studies** also support this.
- **Cognitive:** negative thought patterns leads to depression

**SCHIZOPHRENIA**  
**NOT MULTIPLE PERSONALITIES!**  
**THEY HAVE ONE PERSONALITY!**

• **SYMPTOMS**

- **Positive Symptoms** (*not good – means something added*)
  - **Hallucinations:** sensory experiences w/o sensory stimulation (seeing and/or hearing things)
  - **Delusions:** fixed, false beliefs (people are out to get them, grandiose thoughts (I am God))
  - **Disorganized thinking**
  - **Disorganized speech**
- **Negative Symptoms** (*something taken away*)
  - **Flat affect:** lack ability to show emotions
  - **Impaired decision making, inability to pay attention**
- **Catatonia:** become frozen over periods of time (*exhibit waxy flexibility:* can move them into new positions)

• **CAUSES OF SCHIZOPHRENIA**

- **Brain abnormalities:** enlarged ventricles (atrophy), smaller frontal cortex
- **Genetics:** runs in families, MZ twins at higher risk
- **Dopamine hypothesis:** too much dopamine in the brain
- **Diathesis – Stress:** individual has a genetic predisposition, disease must be “turned-on” by environmental stimuli (like stress) – explains why it is most commonly developed during college years

**PERSONALITY DISORDERS**

- **Marked by disruptive, inflexible, enduring behavior patterns – makes this very difficult to treat!**
  - **Antisocial:** NOT “avoidant of socialization” – more like “anti-society” – disregard for others, manipulative, breaks laws
  - **Borderline:** instable interpersonal relationships & self-image, “I hate you, don’t leave me”
  - **Histrionic:** excessive emotionality & attention seeking (slut disorder)
  - **Narcissistic:** need for admiration & lack of empathy (who cares about everyone else – look at me!)

**Treatment of  
Psychological Disorders  
(5-7%)**

• **PSYCHODYNAMIC APPROACH:** SEE PERSONALITY SECTION

• **HUMANISTIC APPROACH:**

- **Client-centered therapy:** (developed by CARL ROGERS) techniques include active listening, accepting environment, focuses on *patient growth* (you figure out what needs to change and do it)

• **COGNITIVE APPROACH:**

- **Rational-emotive therapy:** (developed by ELLIS) techniques include analyzing self-defeating behaviors to change *thought patterns* – and then change behaviors associated w/ said patterns
  - **Best for anxiety disorders**
  - **Very confrontational**
- **Cognitive therapy:** (developed by BECK) illogical thoughts → psychological problems, challenges those thoughts
  - **Best for depression**
  - **Self-directed – you figure out your errors**

• **BEHAVIORAL APPROACH (typically used for anxiety disorders / phobias)**

- **Classical Conditioning:**
  - **Counterconditioning** Little Albert & Watson
    - **Aversive conditioning:** associate an unpleasant experience (e.g. nausea) w/ an unwanted behavior (e.g. drinking alcohol)
  - **Exposure therapy:** slowly expose people to whatever it is that makes them anxious
  - **Systematic desensitization:** associate a pleasant relaxed state w/ gradually increasing anxiety triggering stimuli (create a desensitization hierarchy – ex. List of things about flying that makes you nervous – step through each one till you can do it)
  - **Intensive exposure therapy (Flooding):** force someone to experience the fear (afraid of drowning, throw you in a pool)

- **Operant Conditioning:** use behavior modification (reward good behaviors w/ token reinforcers ). Used in schools, w/ autistic children, etc.

• **OTHER THERAPIES:**

- **Family therapy:** treats the family as a system, individual behaviors are influenced by family dynamics
- **Group therapy:** therapy through a group – lets patients see “they’re not alone”

• **BIOLOGICAL APPROACH: CALLED BIOMEDICAL THERAPIES**

- **Drug therapies (psychopharmacology):**
  - **Anti-psychotics: decrease dopamine:** treats schizophrenia
  - **Side effects: TARDIVE DYSKINESIA:** hand tremors (similar to Parkinson’s- due to lack of dopamine), worsening of negative symptoms, extreme sedation
  - **Drug names:** thorazine, clozapine
  - **Anti-depressants: increase serotonin** through **REUPTAKE inhibition**
  - **Side effects:** drowsiness, anxiety, can increase suicide risk in teens
  - **Drug names:** SSRIs (selective serotonin reuptake inhibitors) like *Prozac, Zoloft, Paxil*. SNRIs (selective norepinephrine reuptake inhibitors) *Cymbalta, Effexor*
  - **Mood stabilizers:** used in the treatment of BIPOLAR disorder : **LITHIUM**
  - **Anti-anxiety drugs:** depress the central nervous system (dangerous in combo w/ alcohol) *Xanax, Ativan*
- **Electroconvulsive therapy (ECT):** send electricity into the brain to induce minor seizures. Used (*rarely*) to treat depression (*when nothing else works*). Thought to “reboot” the brain
- **Psychosurgery (frontal lobotomy):** frontal lobe is surgically destroyed. Used to treat depression or violent individuals – almost never used anymore

**Social  
(8-10%)**

**SOCIAL THINKING**

- **Attribution theory:** we explain others behaviors by crediting the situation or the person’s disposition (they only passed b/c they cheated)
- **Fundamental attribution error (very similar to Actor-observer bias):** tendency for observers to underestimate the importance of the situation and overestimate the impact of personal disposition (that guy cut me off b/c he’s a jerk – not that his wife could be in labor)

**ATTITUDES AND ACTIONS**

- **Central route to persuasion:** change people’s attitudes through logical arguments and explanations. Leads to long term behavior change
- **Peripheral route to persuasion:** change people’s attitudes through incidental cues (like a speaker’s attractiveness). Leads to temporary behavior changes
- **Foot in the door phenomenon:** complying w/ a small request then leads to going along w/ a larger request (can I have \$5? Yes. Now can I have \$25?)

- **Door in the face phenomenon:** a large request is turned down, when then leads you to be more likely to comply w/ a small request (can I have \$100? Heck no! How about \$20? Okay)

- **STANFORD PRISON EXPERIMENT (ZIMBARDO):** classic “experiment” where individuals were assigned to be guards / prisoners. w/in days they took on their **roles** and went too far. Highly unethical

- **Cognitive dissonance (FESTINGER):** two opposing thoughts conflict w/ each other, causing discomfort (dissonance), which makes us find ways to justify the situation (cult that was going to be abducted by aliens, smokers)

#### SOCIAL INFLUENCE

- **Conformity:** classic experiment done by ASCH – showed lines of different lengths, confederates gave wrong answers to see if others would go along w/ it
  - **Normative social influence:** we conform to gain approval or to not stand out from the group (be part of the *norm*)
  - **Informational social influence:** we conform to others b/c we think their opinions must be right
- **Obedience:** classic experiment done by MILGRAM: participants were to “teach” another individual using shocks. 60% of participants would administer lethal shocks to another person simply b/c they were told to

#### GROUP INFLUENCE

- **Social facilitation:** perform better on simple or well learned tasks in the presence of others
- **Social loafing:** tendency for ppl in a group to exert less effort when pooling their effort together (tug of war)
- **Deindividuation:** loss of self-awareness and self-restraint occurring in group situations that foster arousal and anonymity (mob mentality)
- **Group polarization:** the more time spent w/ a group the more similar (polarized) their thoughts / opinions will become
- **Groupthink:** desire for harmony w/in a group leads to everyone going along w/ the same thinking, ignoring other possibilities or bad ideas
- **Risky shift:** groups make riskier decisions together rather than alone

#### PREJUDICE

- **Ingroup:** “US” – ppl w/ whom we share a common identity
- **Outgroup:** “them” – ppl perceived as different or not part of the group
- **Ingroup bias:** tendency to favor our own group

- **Scapegoat theory:** prejudice offers an outlet for anger by providing someone else to blame
- **Ethnocentrism:** tendency to see your own group as more important than others
- **Just-world phenomenon:** tendency for ppl to believe that the world is just and therefore ppl get what they deserve (homeless ppl)

#### AGGRESSION

- **Genetic influence:** runs in families, can breed for in animals
- **Lower serotonin, higher testosterone**
- **Environmental influence:** social learning theory (BANDURA) – observing violence in others makes us more violent for a time
  - **Also:** pollution, crowding, heat, humidity
- **Frustration-aggression hypothesis:** frustration creates anger, which leads to aggression







#### ATTRACTION

- **Mere exposure effect:** repeated exposure to novel stimuli increases liking of them (the more time you spend around something the more you like it)
- **Physical attractiveness:** pretty ppl are thought to be more credible, less likely to do bad things
- **Similarity:** we prefer ppl similar to us

#### ALTRUISM

- **Altruism:** unselfish regard for the welfare of others
- **Bystander effect:** the more ppl around the less likely we are to help someone in need
- **Social exchange theory:** social behavior (helping) is an exchange process – aim is to maximize benefits and minimize cost
- **Reciprocity norm:** we give so we can get
- **Social trap:** conflicting parties pursue their own best interests, which can result in destructive results (prisoner’s dilemma – game theory)

#### CONFLICT

Prisoners' dilemma		prisoner B			
		confess		remain silent	
prisoner A					
	confess	 5 years 5 years	 0 year 20 years		
	remain silent	 20 years 0 year	 1 year 1 year		

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- **Approach approach conflict:** win – win situation; conflict is which win you have to choose (you can eat out at ONE of your two favorite restaurants – you can only choose one though)
- **Approach avoidance conflict:** win – lose situation; outcome has positive and negative aspects (marriage)
- **Avoidance avoidance conflict :** lose – lose; both outcomes are bad but you have to choose one (clean your room or do your homework)
- **Multiple approach avoidance conflict:** two (or more) win-lose situations; conflict is which to choose (College A is good for your major but no scholarship, College B is bad for your major but has a scholarship)

#### SOCIAL SELF

- **Self-concept bias:** what we consider important in ourselves is what we consider important in others
- **False-consensus effect:** we overestimate the degree to which everyone else thinks / acts the way we do
- **Self-fulfilling prophecy:** a belief that leads to its own fulfillment (I expect you all to pass, you know this, you study – fulfilling my prophecy)
- **Self-serving bias:** readiness to perceive ourselves as favorably
- **Spotlight effect (self-objectification) :** tendency of an individual to overestimate the extent to which others are paying attention to them

### MULTIPLE CHOICE STRATEGIES

- Bubble as you go – you don’t want to run out of time!
- Answer EVERY QUESTION – you don’t lose points for guessing
  - If you run out of time pick either B, C, or D and bubble straight down. DO NOT ZIG ZAG
- If you don’t recognize an answer choice – it probably IS NOT THE ANSWER

### ESSAY WRITING STRATEGIES

#### **ANSWER THE STUPID QUESTION!**

- Don’t write in bullet points!
  - No Fluff – no transitions – no topic / thesis statements
- Be specific and apply the answer to the prompt

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