

# Cram Packet a la Thompson aka THE BEAST (2019/20)

## History and Approaches (10-14%)

- 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

- Psychoanalytic/dynamic** – unconscious, childhood
- Behavioral** – learned, reinforced
- Humanistic** – free will, choice, ideal, actualization
- Cognitive** – Perceptions, thoughts
- Evolutionary** – Genes
- Biological** – Brain, NTs
- 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.

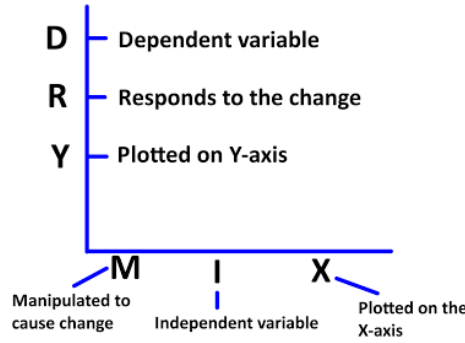
### RANDOM TERMS

- Basic research** – purpose is to increase knowledge (rats)
- Applied research** – purpose is to help people
- Psychologist** – research or counseling – MS or PhD
- Psychiatrist** – prescribe medications and diagnose – M.D.

### Research Design

### EXPERIMENT :

- Adv: researcher controls variables to establish **cause and effect** Disadv: difficult to generalize
- Independent Variable:** purposefully altered by researcher to look for effect
  - Experimental Group:** received the treatment (part of the IV); can have multiple exp. groups
  - Control Group:** placebo, baseline (part of the IV); can only have 1
  - Placebo Effect:** show behaviors associated with the exp. group when having received placebo
- Dependent Variable:** measured variable (is DEPENDENT on the independent variable)



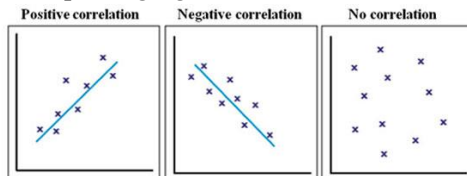
- Double-Blind:** Exp. where neither the participant or the experimenter are aware of which condition people are assigned to (drug studies)
- Single-Blind:** only participant blind – used if experimenter can't be blind (gender, age, etc)

- 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 among groups
- Random Sample:** method for choosing participants for your study – minimizes bias, everyone has a chance to take part
  - Assignment and sampling can be done via names in a hat, computer generation

Often confused

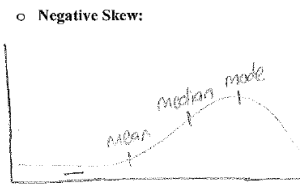
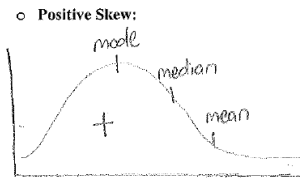
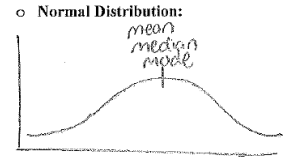
- Representative Sample:** Sample mimics the general pop. (ethnic, gender, age)
- CORRELATION:** Adv: identify relationship between two variables Disadv: No cause and effect (**CORRELATION DOES NOT EQUAL CAUSATION**)
  - Positive Correlation** – variables increase & decrease together
  - Negative Correlation** – as one variable increases the other decreases
  - The stronger the # the stronger the relationship REGARDLESS of the pos/neg sign.** Cannot be < or > than 1.



- 3<sup>rd</sup> variable problem (lurking variable)** – diff. variable is responsible for relationship (breast implants & suicide)
- Illusory correlation** – belief of correlation that doesn't exist (old man predicts rain from arthritis)

- NATURALISTIC OBSERVATION:** Adv: real world validity (observe people in their own setting) Disadv: No cause and effect
- 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



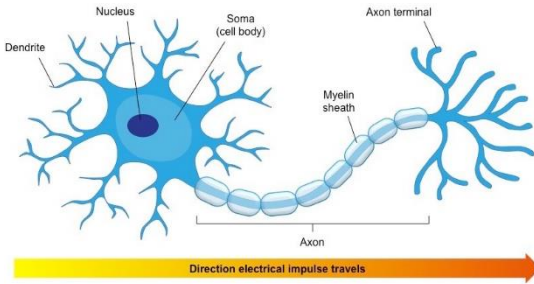
- INFERENCE STATISTICS:** establishes significance (meaningfulness)
- STATISTICAL SIGNIFANCE** = results not due to chance, exp. manipulation caused the difference in means
- ETHICAL GUIDELINES (APA)**
  - Confidentiality: names kept secret
  - Informed Consent: must agree to be part of study
  - Debriefing: must be told the true purpose of the study (done after for deception)
  - Deception must be warranted
  - No harm – mental/physical

## Biological Basis (8-10%)

\*NT = neurotransmitter, AP = action potential, NS = nervous system

- NEURON:** Basic cell of the NS
  - Dendrites:** Receive incoming signal
  - Soma:** Cell body (includes nucleus)
  - Axon:** AP travels down this
  - Myelin Sheath:** speeds up AP down axon, protects axon, MS destroys this
  - Terminals:** release NTs – send signal onto next neuron
  - Vesicles:** sacs inside terminal contain NTs (rhymes w/?)
  - Synapse:** gap b/w neurons

- **Action Potential:** movement of Na and K ions across membrane sends an electrical charge down the axon (more Na outside – like a salty banana)
  - **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)



- |  |
|--|
| • <b>Sensory neurons – receive signals</b> |
| • <b>Afferent neurons – Accept signals</b> |
| • <b>Motor neurons – send signals</b>      |
| • <b>Efferent neurons – signal Exits</b>   |

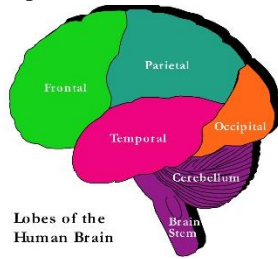
- **Interneurons** – cells in spinal cord responsible for reflex loop
- **CENTRAL NS:** Brain and spinal cord
- **PERIPHERAL NS:** Rest of the NS
  - **Somatic NS:** Voluntary movement
  - **Autonomic NS:** Involuntary (heart, lungs, etc)

Must include bio response (HR increase / decrease) for FRQ

- **Sympathetic NS:** Arouses the body fight/flight (generally activates – sympathetic to you getting eaten by tiger helps you run away)
- **Parasympathetic NS:** established homeostasis after a sympathetic response (generally inhibits)

- **NEUROTRANSMITTERS (NT):** Chemicals released in synaptic gap, received by neurons
  - **GABA:** Major inhibitory NT
  - **Glutamate:** Major Excitatory NT (get excited when seeing your mates!)
  - **Dopamine:** Reward & movement
  - **Serotonin:** Moods and emotion
  - **Acetylcholine (ACh):** Memory
  - **Epinephrine & Norepinephrine:** sympathetic NS arousal
  - **Endorphins:** pain control
  - **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

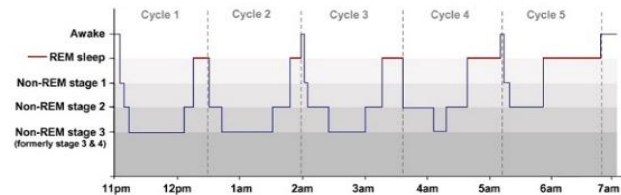
- **AREAS OF THE BRAIN:**
  - **Hindbrain:** oldest part of the brain
    - **Cerebellum** – movement/balance (walking a tightrope balancing a bell)
    - **Medulla** – vital organs (HR, BP)
    - **Pons** – sleep/arousal (Ponzzzzzz)
  - **Midbrain**
    - **Reticular formation:** alertness
  - **Forebrain:** 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!)
      - **Hypothalamus:** Reward/pleasure center, eating behaviors – link to endocrine system
    - **Thalamus:** relay center for all but smell (you MUST (thalaMUST) use your thalamus, unless its MUSTY – smell)
    - **Cerebral Cortex:** outer portion of the brain – higher order thought processes
      - **Occipital Lobe:** vision – mom's eyes!
      - **Frontal Lobe:** decision making, planning, judgment, movement, personality
      - **Parietal Lobe:** sensations
      - **Temporal Lobe:** 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



- **Left hemisphere only** – damage results in *aphasia* (damaged speech)
    - **Broca's Area:** Inability to produce speech (Broca – Broken speech)
    - **Wernicke's Area:** can't comprehend speech (Wernicke's what?)
- 
- **Corpus Callosum:** bundle of nerves that connects the 2 hemispheres – sometimes severed in patients with severe seizures – leads to “split-brain patients”
    - **Split-brain experiments:** done by Sperry & Gazzaniga.
      - Image shown to R eye processed in L hemi – patient can say what they saw;

image shown to L eye processed in R hemi, can't say what was seen

- **BRAIN PLASTICITY:** Brain can “heal” itself (brain is malleable)
- **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
- **BRAIN IMAGING:**
  - **EEG:** brain activity – not specific
  - **XRAY:** not useful, doesn't show tissues
  - **CT / MRI:** shows structures (tumors)
  - **PET:** glucose shows brain activity (when in doubt pick this one)
  - **fMRI:** glucose shows activity: real time
  - **lesion** – destruction of brain tissue
- **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



- **SLEEP:**
  - **Beta Waves:** awake (you betta be awake for the exam)
  - **Alpha Waves:** high amp., drowsy
  - **NREM (non REM) stages-**
    - **Stage 1:** light sleep
    - **Stage 2:** bursts of sleep spindles
    - **Stage 3 Delta waves:** Deep sleep
  - **Rapid Eye Movement (REM):** dreaming, cognitive processing
  - **Entire cycle takes 90 minutes, REM occurs in/b/w each cycle. REM lasts longer throughout the night**
- **CIRCADIAN RHYTHM:** 24 hour biological clock
  - Body temp & sleep
  - 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/talking:** (due to fatigue, drugs, alcohol) – NOT during REM
- **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:**

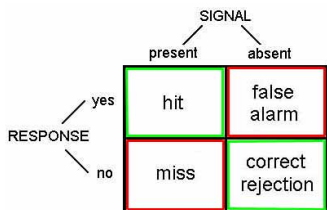
- **Freud's Unconscious Wish Fulfillment:** Dreaming is gratification of unconscious desires and needs
  - **Latent Content:** hidden meaning
  - **Manifest Content:** obvious storyline
- **Activation Synthesis:** Brain produces random bursts of energy – stimulating lodged memories in limbic sys. Dreams start random then develop meaning

• **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, less 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.

**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?)
  - **Sensory Habituation:** diminished sensitivity due to regular exposure (do you notice the train?)
- **Perceptual Set (mental set):** tendency to see something as part of a group – speeds up signal processing



Pathway of light follows this direction →

- **Inattention Blindness:** failure to notice something added b/c you're so focused on another task (gorilla video)
- **Change Blindness:** failure to notice a change in the scene (door study)
- **Cocktail party effect:** notice your name across the room when its spoken, when you weren't previously paying attention

**VISUAL SYSTEM:**

- **Cornea** – protects the eye
- **Pupil/iris** – controls amount of light entering eye
- **Lens** – focuses light on retina
- **Retina** – contains rods and cones
- **Fovea** – area of best vision (cones here)
- **Rods** – black/white, dim light
- **Cones** – color, bright light (red, green, blue)
- **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. located in occipital lobe (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)

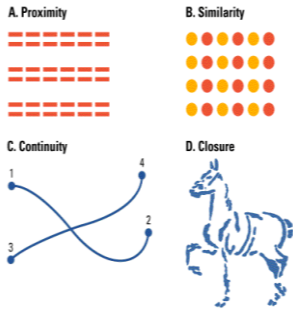
KEY WORD

- **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 retina, location of image helps us determine depth
  - **Convergence:** Eyes strain more (looking inward) as objects draw nearer
- **TOP-DOWN PROCESSING:** Whole → smaller parts (painting w/ faces)
- **BOTTOM-UP PROCESSING:** Smaller Parts → Whole (dog of bunch of dots)
- **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 (nociception):** Gate-control theory: we have a “gate” to control how much pain is experienced
  - **Kinesthetic (proprioception):** Sense of body position (neurons in ligaments & body tell you this)
  - **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:** mentally fill in gaps
- **Proximity:** group things together that appear near each other
- **Similarity:** group things together based off of looks
- **Continuity:** tendency to mentally form a continuous line



**Learning (7-9 %)**

**CLASSICAL CONDITIONING: PAVLOV!**

- **Unconditioned Stimulus (UCS):** causes response w/o needing to be learned (food)
- **Unconditioned Response (UCR):** response that naturally occurs w/o training (salivate)
- **Neutral Response (NS):** stimulus that normally doesn't evoke a response (bell)
- **Conditioned Stimulus (CS):** once NS that now brings about a response (bell)
- **Conditioned Response (CR):** response after conditioning, follows a CS (salivate)
- **Contiguity:** Timing of the pairing, NS/CS must be presented .5-1 sec 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)

**John Watson (father of behaviorism) and Little Albert** – conditioned a fear in a baby – eventually leads to behavioral treatments for fear (counterconditioning)

**All operant conditioning**

**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
  - **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)
  - **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 (13 – 17%)**

**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
    - Peg-word – using a rhyme w/ imagery to remember lists 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)

All associated w/ classical conditioning

## 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
  - **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

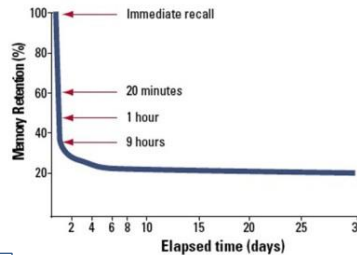
• **Serial Position Effect:** tendency to remember the beginning (primacy effect) and the end (recency effect) of the list best

• **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** blocks **new**

### • Retroactive interference

**NEW** blocks **old**

- **Misinformation effect:** distortion of memory by suggestion or misinformation (**Loftus** – lost in the mall, Disney land)
- **Framing** – the way a question is framed impacts how info is recalled / perceived
- **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 (-ed *means* past tense)
- **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:** 1<sup>st</sup> stage of speech
- **One-word stage:** duh
- **Two-word stage:** duh duh (telegraphic speech)
- **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: NOAM CHOMSKY** – says that language is innate; 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 have no words for past, do not think about the past) developed by **WHORF**

## THINKING

- **Metacognition:** thinking about (reflecting upon) the way you think
- **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 on contrary evidence
- **Confirmation bias:** look for evidence to support what we already believe
- **Inductive reasoning:** data driven decisions, specific to general
- **Deductive reasoning:** driven by logic, general to specific
- **Divergent thinking:** ability to think about many different things at once (Creative)
- **Convergent thinking:** limits creativity – one answer

## INDIVIDUAL THEORIES ABOUT INTELLIGENCE

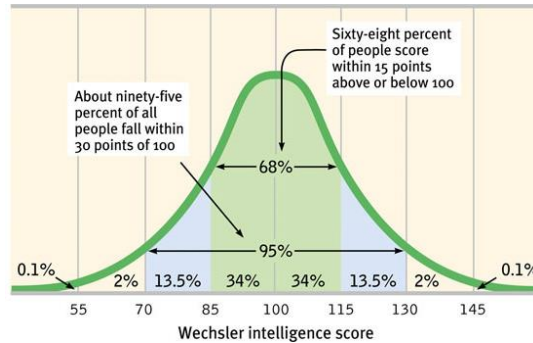
- **GALTON:** 1<sup>st</sup> to suggest intelligence was inherited. Intelligence based on muscle strength, size of head, reaction time, etc.
- **CATTELL:** 2 clusters of mental abilities
  - **Crystallized intelligence:** reasoning and verbal skills - what you learn in school – the cold hard (like crystals!) facts, increase w/ time
  - **Fluid intelligence:** spatial abilities, rote memory, things that come natural to you – can’t learn in school. 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; intellectually disadvantage = below 70
- **Causes of mild intellectual disadvantage:**
  - 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



## 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 disability, 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, babinski
    - **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 (blush test)
  - **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
  - **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

- **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

- **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)
- Also said mean use "justice" for postcon. women use "caring for others"

- **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:**

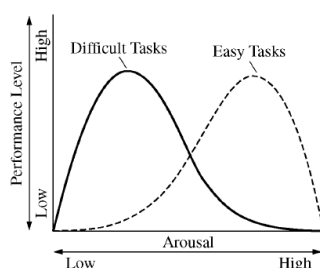
- **Cellular clock theory:** cells have a maximum # of divisions before they can't divide anymore
- **Free-radical theory:** unstable oxygen molecules w/in cells damage DNA
- **Over time skills decrease** (reaction time, memory)
- **CROSS-SECTIONAL STUDY:** studies ppl of different ages at the same point 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

## Motivation, Emotion, and Personality

(11-15%)

### 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)
- **INCENTIVE THEORY:** driven by external rewards
- **OPTIMUM AROUSAL:** humans 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.
  - **Hormones signal eat:** orexin, Ghrelin
  - **Hormones signal stop:** PYY, leptin
  - **Lateral hypothalamus:** stimulated makes you hungry; 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 (fat woman and cake)

- **Obesity:**

- Increased risk of **heart attack, hypertension, atherosclerosis, diabetes**
- Can be genetic – adopted children resemble their biological parents
- **Set point:** control system 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
  - **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:** created Kinsey scale of homosexuality (ranges on a spectrum) Studies lacked a representative sample
- **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

#### Emotion Theories

**James-Lange**  
A before E    A before E

**Action before Emotion**  
(physiological action/response) → emotion



#### Cognition Theories

**Lazarus**

"Lazarus Labels first"  
labelling cognition → physiological response + emotion

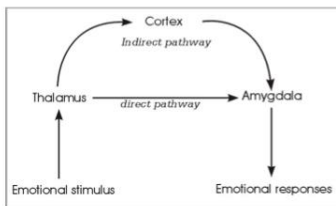
**Schachter-Singer**

sensation + solve → Emotion  
(physiological response) + (interpretation of cognition) → emotion

Cog. Labels the key

#### Biological Theory (Le Doux)

- 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 (**Eckman's theory**)
- **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 (cartoon study with pen in mouth)

### INDUSTRIAL/ORGANIZATIONAL PSYCH

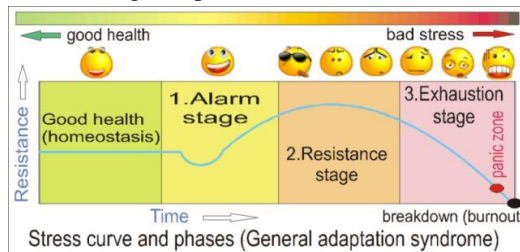
- **Industrial / Organizational Psych:** psych of the work – employee recruitment, training, satisfaction, productivity
- **Ergonomics / Human Factors:** intersection of engineering and psych – focuses on

safety and efficiency of human-machine interactions

- **Hawthorne effect:** productivity increases when workers are made to feel important (teacher teaches when principal comes in)
- **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

### STRESS AND HEALTH

- **Problem-focused coping:** solving or doing something to alter the course of stress (planning, acceptance)
- **Emotion-focused coping:** reducing the emotional distress (denial, disengagement)
- **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

### Theories of Conflict (Lewin)

- **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)

Not valid today

### PERSONALITY THEORIES

#### PSYCHODYNAMIC EXPLANATION

**SIGMUND FREUD** said personality was largely unconscious.

- **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:** high levels = imaginative, independent, like variety
  - **Conscientiousness:** high levels = organized, careful, disciplined
  - **Extraversion:** high levels = sociable, fun-loving, affectionate (opposite is **introversion:** shy, timid, reserved)
  - **Agreeableness:** high levels = soft hearted, trusting, helpful
  - **Neuroticism (emotional stability):** low neuroticism (high 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?**

- Personality Inventories like:
  - **MMPI** – helpful for mental health and job placement

**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

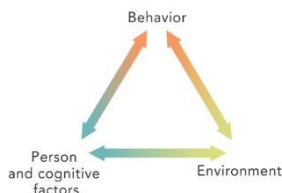
**What wrong with humanistic theory?** - too optimistic about human nature, abstract concepts are difficult to test

**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*.



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)

## Clinical Psychology (12 – 16%)

- **Defining abnormal behavior:**
  - Requires “clinically significant” disturbance in cognition, emotional regulation or behavior AND
  - Significant distress or disability social situations, occupations or other important activities
- **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

### 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

- Psych disorders w/ no physical cause
  - **Conversion disorder:** loss of feeling or usage of a limb or body part (sight) – absolutely no physiological cause though
  - **Illness Anxiety Disorder:** 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 childhood abuse
- Legitimacy is doubted by some, more common in those w/ good health insurance
- Treatment involves integration of the personalities
- **Dissociative Amnesia + Fugue:** following a traumatic event a person leaves, taking on a whole new life & personality w/ no memory of the previous one

## 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) – most commonly developed during college years

## DEPRESSIVE DISORDERS

- **Major depressive disorder:** extreme sadness and despair, apathy towards life, w/ no known cause
- **Disruptive mood regulation disorder:** Frequent temper tantrums inconsistent with developmental level
- **Seasonal Affective Disorder (SAD):** form of depression that occurs typically winter – found mostly in Northern areas (Alaska, Ireland) **UNIQUE TREATMENT = LIGHT THERAPY**

## BIPOLAR DISORDERS

- **Bipolar disorder:** bouts of severe depression & manic episodes
  - **Mania:** heightened mood, characterized by risky behaviors, fast talking, flights of ideas

### CAUSES OF DEPRESSIVE AND BIPOLAR 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

## 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
- **Narcissistic:** need for admiration & lack of empathy (who cares about everyone else – look at me!)

## OTHER DISORDERS

- **Obsessive-compulsive Disorders (OCD):** person is overwhelmed with both:
  - **Obsessions:** persistent unwanted thoughts (did I leave the stove on?)
  - **Compulsions:** senseless rituals (hand washing)
- **Post-traumatic stress disorders (PTSD):** characterized by flashbacks, problems w/ concentration, and anxiety following a traumatic event (war, natural disasters)
- **Autism Spectrum Disorder:** usually diagnosed in childhood, characterized by an impairment in social relationships, communication, and activities

## TREATMENT OF PSYCHOLOGICAL DISORDERS

- **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:** thiorazine, clozapine
    - **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*
    - **Anti-depressants: increase serotonin** through **REUPTAKE inhibition**

AP exam favorite

- **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*

- **Electroconvulsive therapy (ECT):** send electricity 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%)

- **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** 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)
- **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 stronger 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
- **Passionate Love:** Early stage of romance – intense pos. obsession w/ another (due to arousal)
- **Companionate Love:** Later stage – deep attachment to someone who your life is intertwined w/ - best with *equality* and *self-disclosure* (revealing intimate details about self)

### 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 (Kitty Genovese)
- **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

### CONFLICT

- **Social trap:** conflicting parties pursue their own best interests, which can result in destructive results (prisoner’s dilemma – game theory) (choose 5 or 15 demo)
- **Superordinate goals:** two or more groups work together to achieve a common goal, creates cohesiveness

### SOCIAL SELF

- **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)

Must have all 3 for FRQ – belief  
→ behavior change → belief

- **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

## AP Exam Formatting:

100 Multiple Choice Questions – 70 minutes

10 minute break

TWO FRQs – 50 Minutes

- One FRQ specific to research methods
- One FRQ conceptually based

## FRQ TIPS:

Remember to CHUG SODAS:

**Concise** – answer the prompt as concisely as possible

**Handwriting** – write legibly and in black and/or blue pen. If you have *trash* handwriting then write on every other line

**Underline** – underline the vocab term you're talking about (or write it in a different color)

**Get rid of intro and concluding paragraphs** (just answer the question!)

**Spacing** – leave a space between each term that you are writing about

**Order and organize** – write in order and organize each term into its own paragraph

**Define** – DEFINE EVERY TERM. PERIOD.

**Apply** – apply the concept to the scenario given – make sure to refer to the prompt, don't give random examples with no context

**Synonyms** – don't parrot the prompt – try to use synonyms when possible