CONFUSING PAIRS OF TOPICS IN AP PSYCHOLOGY-FINAL REVIEW!

Don’t mix us up!
We forget different information because of these.

**Proactive interference** = Previously learned material causes us to forget NEW info (native Spanish speaker learning French often lapses into Spanish)

**Retroactive interference** = Recently learned info causes us to forget old info (teacher forgetting old student’s names at the start of a school year)
Both of these are other substances in the neural synapse.

**Agonists** ACT LIKE/MIMIC a neurotransmitter (nearly identical molecular shape) and fit directly into the NT’s receptor site.

**Antagonists** BLOCK a neurotransmitter by sitting directly on top of a NT’s receptor site.
Both occur early in an experiment. Random Sampling occurs as you choose who will participate in your experiment; Random Assignment occurs when you are assigning participants to groups.

Random Sampling enables each person in your sample an equal chance of being in your experiment.

Random Assignment allows each person in your sample an equal chance of being in the experiment or control groups.

You HAVE to mention BOTH of these if you are writing an essay about an experiment.
**Applied vs. Basic Research**

- **Applied research** has a clear purpose: such as to explain why people resist going to the doctor.

- **Basic research** is for curiosity’s sake—conducting research to expand knowledge for science’s sake. Example—studying the grasshopper’s movements to see how it spends its time.
SELF-SERVING BIAS vs. SELF FULFILLING PROPHECY

- **Self-serving bias**: we take credit for all of the good/positive things that happen to us, overestimate the role of others when things that we work on FAIL. (We won because of ME, we lost because of YOU!)

- **Self Fulfilling Prophecy**: we expect something to happen and thus work to make it happen without intending to. (A teacher expects your younger sibling to be a jerk because he doesn’t like you...treats the younger sibling poorly—and the sibling acts like a jerk!)
STRUCTURALISM VS. FUNCTIONALISM

- Old, original schools of thought of Psych-dating back to late 19th century
- **Structuralism** - Psych should focus on structure (parts of the brain) and elements of immediate conscious experience. (What’s in there?)
- **Functionalism** - Psych should focus on HOW and WHY the mind functions. (How does it work?)
Foot in the Door vs. Door in the Face

- Both sales techniques, or used in negotiations.
- **Foot in the Door** starts small then goes big. Ask to sign petition early, get a commitment, ask for money later.
- **Door in the Face** starts big (Give me 10K!) and likely gets rejected, but follows with a smaller request (Can I have $10?) that is more likely accepted due to guilt.
Collectivist vs. Individualistic Cultures

Linked to Personality.

Collectivist (Think Japan) cultures emphasize the family and company - most important to get along with the group. Don’t stand out!

Individualistic (Think USA) cultures emphasize individuality and personal success - most important to show what YOU’VE done (money you’ve made, degrees you’ve earned, etc.) Be unique!
Descriptive vs. Inferential Statistics

- Descriptive statistics DESCRIBE sets of data. How are they alike? (Central Tendency - mean, median, mode) How are they different (Variance - Range, Stand. Dev.)

- Inferential Statistics allow you to infer conclusions from a sample to an entire population. Is there a causal relationship? Think test of statistical significance - p < .05! (You haven’t have to do these types of stats in this course!)
Syntax vs. Semantics

- Related to Language
- Syntax is Grammar. Where do you put the comma, period, etc. The rules of grammar that enable us to make sense of language. Do the nouns go before or after the adjectives?
- Semantics is the meaning of words and how they enable us to communicate. A semantic error could be using a word wrong.
**Anterograde Amnesia vs. Retrograde Amnesia**

- **Anterograde amnesia**: can’t remember new stuff after a head injury. Clive Wearing had encephalitis, destroying his hippocampus so that he can’t form NEW memories. 50 1\(^{st}\) Dates.

- **Retrograde amnesia**: can’t remember old memories from before a head injury. After the accident, you can’t remember your name.
SYSTEMATIC DESENSITIZATION vs. AVERSIVE CONDITIONING

**SD**: Behavior therapy designed to reduce anxiety responses by exposure to limited intensity, keeping calm, then increasing intensity.

**Aversive Conditioning**: pair bad with bad-pair negative stimulus (drug that makes you vomit) with unwanted behavior (wanting to drink alcohol) to reduce the behavior.
Bottom Up vs. Top Down Processing

- Usually linked to Sensation and Perception.
- Bottom up = individual elements to a whole. No past experience can be applied - smelling an ethnic food you’ve never seen before then explaining what it smells like.
- Top Down - whole to its parts. You’ve been told that the new food will smell like, and that expectation leads it to smell like...a flower.
Sensation vs. Perception

Linked to prior slide (Top Down vs Bottom up)

**Sensation** is usually bottom up - sensory information we bring in.

**Perception** is usually Top Down. How the brain interprets something you’ve seen, uses expectations or experience to identify what something is.
**Absolute Threshold vs. Difference Threshold**

- **Absolute Threshold** is the minimum intensity of a stimulus required to detect it 50% of the time. *Can you hear that person whispering to you from the other side of the room?*

- **Difference Threshold** (sometimes called Just Noticeable Difference or JND) is whether you can tell that 2 stimuli are different. *Can you tell the 2 different voices apart when they are whispering to you?*
AFFERENT vs. EFFERENT NEURONS

- **SAME** (Sensory Afferent, Motor Efferent)
- **Sensory neurons often called Afferent** in Bio books, and on the AP Psych test. Bring information from the extremities to the nervous system and brain.
- **Motor neurons often called Efferent** in Bio books, and on the AP Psych test. Take information from the brain/nervous system to the extremities.
**Construct validity vs. Content validity**

- **Construct validity**: does a test measure all of some constructed topic? (Aggression, Self-esteem, extraversion, IQ)

- **Content Validity**: does a test or question measure what it is supposed to measure? Was the social psych test all about social psych? (Hint-yes it was)
INDEPENDENT VARIABLE vs. DEPENDENT VARIABLE

- **Independent variable** (what is studied), what you manipulate. Experimental group receives the independent variable.

- **Dependent variable** (what is measured). You measure what the IV does to the DV.

- Effect of sleep deprivation on test performance. What is studied-IV= Sleep; what is measured = test performance.
Left Brain vs. Right Brain (Hemispheres!)

- **Left Brain**: language, logic and planning. Thinks in words.
- **Right Brain**: Creative, spatial. Thinks in pictures.
**Corpus Callosum vs. Cerebral Cortex**

- **Corpus Callosum** is the bridge between the left and right hemispheres. Allows two sides to work together on tasks. Split Brain Joe had his cut.

- **Cerebral Cortex** is outer covering of the brain where both of our higher level processing occurs. Made up mostly of gray matter. Motor cortex, visual cortex, etc. all found in cerebral cortex.
**Sympathetic vs. Parasympathetic Nervous Systems**

- **Sympathetic** (fight or flight)- empowers you to fight or run when you’re in danger. More oxygen to blood, more light in eye, etc.

- **Parasympathetic** (rest or digest)- calms you down when an emergency is over. Returns body to homeostasis.
NEUROTRANSMITTERS VS. HORMONES

- **Neurotransmitters** work within the FAST messenger system—the nervous system. Chemical and electrical message sent with each NT. Dopamine, Serotonin, etc.

- **Hormones** part of the SLOW messenger system—the endocrine system within the bloodstream. Cortisol, testosterone, etc.
**LATERAL VS. VENTROMEDIAL HYPOTHALAMUS**

- Hunger controls in the brain
- Stimulation of the *Lateral* causes hunger. Stimulate the “LAT” makes you fat.
- Stimulation of the *Ventromedial* curbs/stops hunger. Stimulate the “Vin” makes you thin.
Broca’s vs. Werenicke’s Area

- Brain parts in left hemisphere involved in language.
- **Broca’s area** MAKES words. Enables you to control muscle movements involved in speech.
- **Werenicke’s** COMPREHENDS words. Enables you to understand what someone is saying to you.
ASSIMILATION VS. ACCOMMODATION

- Piaget concepts related to cognitive development
- **Assimilation** fits new info into existing schemas (all 4 legged animals are doggies)
- **Accommodation** (changing schema) - 4 legged animals that meow are cats, 4 legged animals that bark are dogs.
Concrete Operations vs. Formal Operations

- Piaget stages of cognitive development.
- Concrete thinking (approx. ages 7-12) uses logical thinking. Numbers, weights, math.
- Formal thinking is “What if?” What happens next? Philosophical thinking. Not everyone develops to this final level, according to Piaget.
**Rods vs. Cones**

- Both are photoreceptors in the retina in the back of the eye.
- **Rods** see in the dark, see movement, see black and white. Gives night vision.
- **Cones** provide acuity (Fine detail), color.
Classical vs. Operant Conditioning

- **Classical Conditioning** causes automatic behavior to be learned due to a connection to a prior stimulus. Think Pavlov’s dogs salivating. Only biological processes (blink, nausea, anxiety) can be learned by CC.

- **Operant Conditioning** causes voluntary behavior to be learned due to consequences (reinforcement or punishment) Think Skinner’s pigeons.
**Primacy effect vs. Recency effect**

- Both are a part of the Serial Position Effect in memory
- **Primacy** effect shows that we tend to remember the beginning of a list well.
- **Recency** effect shows that we tend to remember the end of a list well.
**Implicit Memory vs. Explicit Memory**

- **Implicit memories** are usually physical. Stored in cerebellum, linked to basal ganglia (detailed motor movement). Skills, motor movement. How to tie shoes, skip, ride bike, swim.

- **Explicit memories** are declarative—we can say them. Facts that you can recall and bring to memory. Stored throughout the brain and processed through the hippocampus.
Recall Memory vs. Recognition Memory

- **Recall memory** has no retrieval cues. Essay test is a test of recall memory. Write about the brain. More difficult to retrieve due to lack of cues.

- **Recognition memory** has retrieval cues. M/Choice test has cues because the right answer is a cue.
ALGORITHMS VS. HEURISTICS

- Both are Problem solving strategies
- **Algorithms** are step-by-step, guaranteed to succeed strategies. Directions to build a child’s toy. A proof.
- **Heuristics** are shortcuts. Rule of thumb strategies. I before E except after C. Heuristics are common to human thinking and will cause errors.
Representativeness Heuristic vs. Availability Heuristic

- Both are heuristics that cause errors in judgment.
- **RH** are like stereotypes. Something cognitive or visual seems like an impression you’ve already formed. This person really seems like most old ladies I’ve known.
- **AH** occurs because of strong, vivid memories. We are afraid of flying because of a visual memory of 9/11 planes. Something sticks out in memory and is therefore more available.
**Phonemes vs. Morphemes**

- **Phonemes** are basic sound units. Think phonemes on the phone. Different sounds we can make to make words and language.

- **Morphemes** are smallest units of meaning. Morphemes provide meaning (think M and M). Adding s to a word makes it plural.
Fluid Intelligence vs. Crystallized intelligence

- **Fluid intelligence** is processing speed. How quickly you can come up with an answer. Creative thinking. Diminishes with age.

- **Crystallized intelligence** is facts, details that you can recall. Accumulated knowledge, trivia. Holds with age.
Validity vs. Reliability

- **Validity** is whether a test measures what it is supposed to measure. Construct, Content.

- **Reliability** is consistency. Will you receive similar scores when taking a test multiple times. Split half, evens vs. odd questions.
ACHIEVEMENT TEST VS. APTITUDE TEST

- An achievement test measures what you’ve learned in a class. This AP Psych test is an achievement test.

- An aptitude test is predictive and measures how well you will be able to do on a task or measure in the future. ACT predicts future college grades. Driving Test.
INTRINSIC VS. EXTRINSIC MOTIVATION

- **Intrinsic Motivation** means doing it for yourself, because you want to; the task is challenging and interesting. Intrinsic means the motivation is INTERNAL.

- **Extrinsic motivation** is EXTERNAL. You do a task/play the sport for the money, a prize, a scholarship.
INTERNAL LOCUS VS. EXTERNAL LOCUS OF CONTROL

- Created by Rotter, linked to Personality Unit

- **Internal Locus** means you believe that you control your environment. Things happen because you make them happen.

- **External Locus** means the environment controls you. God, Chance, Luck, Karma-these are the causes of the things that happen to you.
Librium vs. Lithium

- **Librium** treats ANXIETY disorders.
- **Lithium** treats BiPolar.
**Type A vs. Type B**

- Both are personality types (think TRAIT)
- **Type A** (Facing High Stress) Loud, driven, success oriented, competitive personality that faces a higher chance of acquiring coronary heart disease.
- **Type B** Personality (Facing Low stress) More relaxed, laid back.