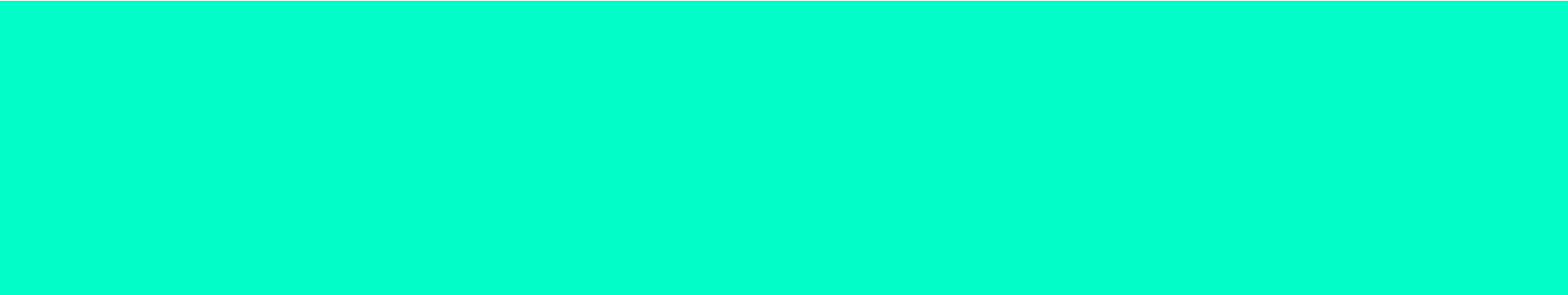


LEARNING & LANGUAGE DEVELOPMENT



CLASSICAL CONDITIONING

An involuntary response when a stimulus that normally causes a particular response is paired with a new, neutral stimulus. After enough pairings, the new stimulus will cause the response to occur.

Unconditioned Stimulus → naturally occurring stimulus that leads to an involuntary response (ex. Food)

Unconditioned Response → involuntary response to a naturally occurring or unconditioned stimulus (ex. Salivation)

Neutral stimulus → stimulus that has no effect on desired response (ex. Bell)

Conditioned Stimulus → stimulus that becomes able to produce a learned reflex response by being paired with the original conditioned stimulus (ex. Bell)

Conditioned Response → learned reflex response to a conditioned stimulus (ex. Salivation)

Stimulus generalization→ responding to a stimulus that is only similar to the original conditioned stimulus with the conditioned response

Stimulus Discrimination→ the tendency to stop making a response to a similar stimulus because the similar stimulus is never paired with the unconditioned stimulus

Extinction→ the disappearance of a learned response following the removal of the unconditioned stimulus

CLASSICAL CONDITIONING SPECIALIZED TO EMOTIONS

Not just animals, humans too

Conditioned Emotional Response → emotional response that occurs to learned stimuli (fear of dogs, way you feel when you see someone attractive)

Vicarious conditioning → classical conditioning of a reflex response by watching the reaction of another person (children crying in line)

CLASSICAL CONDITIONING IN EVERYDAY LIVES?

Conditioned Taste Aversion

Biological Preparedness → associating smell and taste with one's actions

No way to teach entire behavior using classical conditioning

OPERANT CONDITIONING

Classical Conditioning → reflexive, involuntary behavior

Operant Conditioning → voluntary behavior

Law of Effect → If an action is followed by pleasurable consequence, the act is more likely to be repeated (Reinforcement)

If an act is followed by an unpleasant consequence, it will tend to not be repeated (Punishment)

REINFORCEMENT

An event or object that increases the likelihood of that response occurring again

Positive Reinforcement → Providing a reward or pleasurable stimulus following a response

Negative Reinforcement → The reinforcement of a response that removes or allows escape from something unpleasant

PUNISHMENT

An event or object, that when following a response, makes the response less likely to happen again

Positive Punishment (by application)→ The punishment of a response by the addition or experiencing of an unpleasant stimulus

Negative Punishment (by removal)→ The punishment of a response by the removal of a pleasurable stimulus

You put on your seatbelt to stop the annoying "dinging" noise in your car



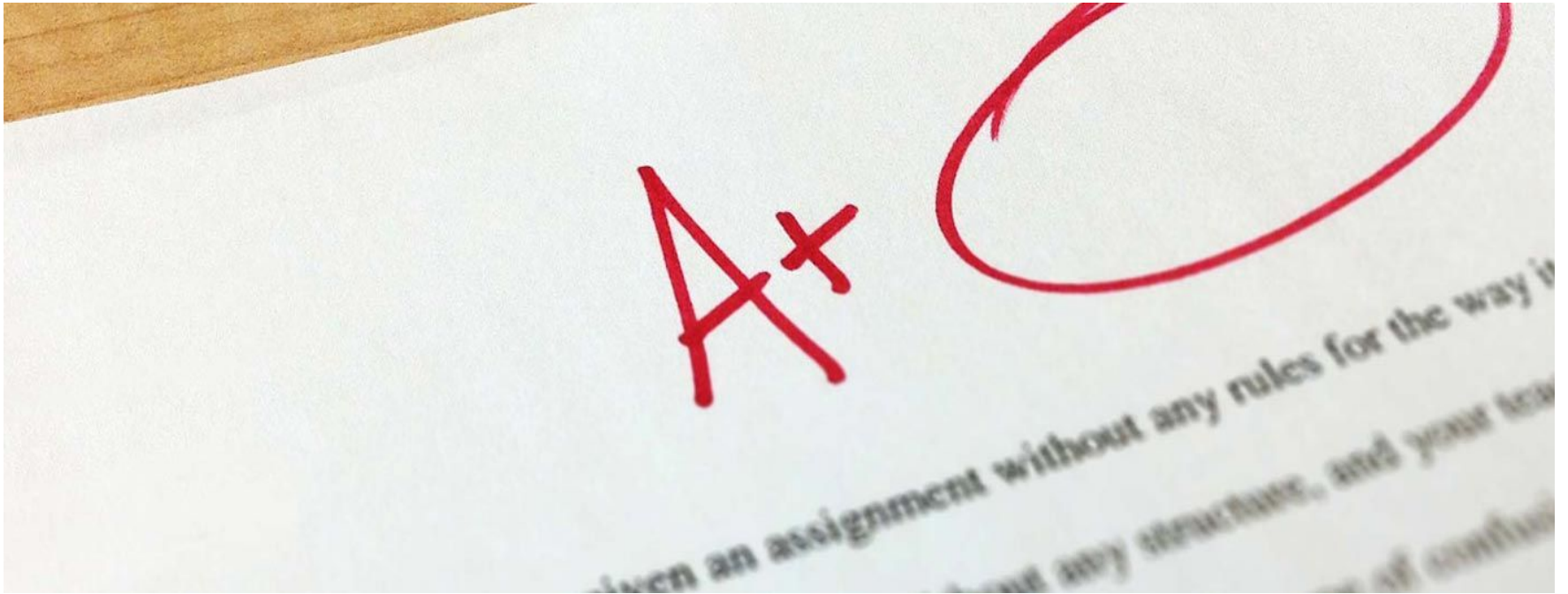


Receiving a ticket for speeding in your car.

Teenager
loses their
cellphone
for talking
back to
mom.



An "A" on your well written paper



SPECIALIZATIONS OF OPERANT CONDITIONING

Shaping → small steps toward some ultimate goal are reinforced until the goal itself is reached

Extinction → removal of all forms of reinforcement

Generalization → responses are generalized to stimuli that are similar to the original stimulus

Discriminative Stimulus → stimulus that provides a cue for making a certain response in order to obtain reinforcement

SCHEDULES OF REINFORCEMENT

Partial Reinforcement Effect → A response that is reinforced after some, but not all, correct responses

- More resistant to extinction

Continuous Reinforcement → a reinforcer for each and every correct response

Fixed Interval Schedule of Reinforcement → the interval of time that must pass before reinforcement becomes possible is always the same

Variable Interval Schedule of Reinforcement → the interval of time that must pass before reinforcement becomes possible is different for each trial

Fixed Ratio Schedule of Reinforcement → the number of responses required for reinforcement is always the same

Variable Ratio Schedule of Reinforcement → number of responses required for reinforcement is different for each trial

OPERANT CONDITIONING IN EVERYDAY LIFE

Behavior Modification → use of operant conditioning to bring about desired changes in behavior

Biofeedback → determining biological conditions (blood pressure, relaxation) and then trying to relieve or control symptoms

Neurofeedback → use of brain-scanning devices to provide feedback about brain activity in an effort to modify behavior

Observational Learning

<https://www.youtube.com/watch?v=dmBqwWIJg8U>

What are some examples of this?

WHY DOES OBSERVATIONAL LEARNING WORK?

- Attention; Must pay attention to the model
- Memory; Must be able to retain the memory of what was done
- Imitation; Must be capable of reproducing or repeating the acts
- Motivation; Must have the desire or motivation to perform the action

COGNITIVE LEARNING THEORY

Latent Learning → learning that remains hidden until its application becomes useful

Insight Learning → Understanding relationships of a problem thus allowing the solution to the problem to come quickly

Learned Helplessness → tendency to fail to act to escape from a situation because of a history of repeated failures in the past

LANGUAGE

Way to communicate with others using meaningful statements

Grammar → system of rules governing the structure and use of a language

- May learn language by imitation, reinforcement, and shaping but grammar is much more difficult to get “wired in” (Think about your own experience)

Syntax → rules for combining words and phrases to form grammatically correct sentences

Morphemes → smallest unit of meaning within a language
(playtime → play, time)

Phonemes → basic units of sound in a language (the a sound in car, day)

Pragmatics → How to communicate with people (take turns, using gestures)

HOW ARE LANGUAGE AND THOUGHT RELATED?

Cognitive Universalism → concepts are universal and influence the development of language

Activity: How do you think ELL students would best learn? Why? (All native language classroom? Mixed classroom? All secondary language classroom?)

HOW IS LANGUAGE ACQUIRED?

2 months old → produce vowel sounds (cooing)

6 months old → creating consonant sounds (babbling)

1 year old → start producing words

18 months old → group words together

6 years old → children are fluent in a language (limited vocabulary)

*Easier for students to learn multiple languages at a young age

CULTURAL LANGUAGE

Make a list of 8-10 words that cultural specific words and phrases (ethnicity, race, gender, age)

Write the list on the board

What are some things we notice?

Broca's Aphasia → damage to Broca's area (left frontal lobe) causing the affected person to be unable to speak fluently, to mispronounce words and speak haltingly

<https://www.youtube.com/watch?v=JWC-cV0mEmY>

Wernicke's Aphasia → damage to Wernicke's area (left temporal lobe), causing the affected person to be unable to understand or produce meaningful language

<https://www.youtube.com/watch?v=3oef68YabD0>