Lecture Notes

* Pavlov is the father of classical conditioning
  + Reflexive responses associate with cues
* Watson
  + Responsible for research for prediction and control of behaviour
    - De-obfuscate the brain
* Skinner
  + Father of instrumental conditioning
    - Concentrates on voluntary responses
      * Why and how do we make choices?
* 1. Non-associate learning: info about one external stimulus
  + Habituation: Decrease in behavioral responding to a repeated stimulus
    - i.e. Clothing
  + Sensitization: Increase in behavioral responding to a repeated stimulus
    - i.e. Horror movies
* 2. Associative learning: how two or more pieces of info are related
  + Classical conditioning: Learn that two stimuli go together
    - i.e. Smell of baking cookies gets you salivated
  + Operant conditioning: Learn that a behaviour leads to a particular outcome
    - i.e. Using a vending machine
* The more neurons are fired, the stronger the connection gets
  + This is known as long-term memory
* The Vietnam war created heroin addicts
  + About 20% of the soldiers were addicts
    - All addicts were held back in Vietnam and conditioned
      * 5% relapse rate when sent back to America
* What causes enigmatic opiate overdose?
  + Individuals take the exact same dose of heroin and end up overdosing; all of a sudden. Why?
    - Possibly due to biological resistance
* Lemons
  + Thinking about lemons causes the human body to salivate
    - It prepares to digest the acidic food
* Homeostasis
  + The human body’s attempt to regulate temperature, glucose, water, etc.
    - Maintaining homeostasis is essential for survival
      * i.e. Eating lemons results in a spike of saliva to digest the acidic food
  + The human body can learn association
    - Pavlov demonstrated this by training a dog to act a certain way at the sound of a bell
      * i.e. Ringing a bell 🡪 Food
* How does learning contribute to the physiology of drugs effects?
* Addicts have less active hotspots in their frontal lobe, leading to less response and hindered decision
  + Their pleasure senses are heightened at the sight of drugs
* Environment plays a huge role in conditioning
  + When people are in rehab and they’re in a new location, they react much better to recovery
    - And when placed back, they start to relapse

Tutorial Notes

* A conditioned is formed under a specific set of conditions
  + These conditions are space and time
    - In order to program a contingency, the action must be performed in the exact same “room” and within a certain period
      * i.e. You can’t ring a bell in one room and give a dog a food in another house
      * i.e. You can’t ring a bell and give a dog food after 3 hours of ringing that bell
* Definitions
  + Acquisition: The process of acquiring a contingency
  + Contingency: Learning a new rule such as food being served at the sound of a bell
  + Implosive Therapy: Having a patient confront their fears head on
    - i.e. If Jill is afraid of dogs, then a psychiatrist must immediately expose her of a German Shepard
  + Systematic Desensitization:
    - i.e. If Jill is afraid of dogs, then a good therapist might start off small with small dogs like tea-cup yorkie and work up to border collie and end off with German Shepard
* In the long run, systematic desensitization is a much better fit because it has the lowest rates of spontaneous recovery
  + On the other hand, implosive therapy is a short term solution
* Benefits
  + Systematic desensitization: Big investment and longer gains
  + Implosive therapy: Small investment and shorter gains