# Memory and Cognition

## April 10, 2013

* Eyewitness Testimony
  + They can be confident they’re accurate but confidence =/= accuracy
  + There’s not a good way to tell a false memory from a real memory
  + Misinformation Effect
    - Loftus & Palmer (1974)
      * Refers to implanting or changing memories.
      * “About how fast were the cars going when they hit/smashed each other?
        + By varying the verb intensity between hit or smashed the subjects varied their answer. When asked during a follow-up if they saw broken glass, smashed said yes, hit said no.
    - Loftus, Miller, and Burns (1978) – “Red Datsun” Study
      * During video, see either a stop or yield sign. Then they are given either consistent or misleading information. “Did another car pass the red Datsun while it was stopped at the stop sign?”
      * Results – Consistent → 70%, Misleading → 43%
    - When are we susceptible to misinformation?
      * Time → If immediately after we are given false information you will not accept it. Over time as memory fades you’ll be more influenced.
      * Subtlety → If given subtlety you’ll likely be influenced more.
      * Age → Children are more susceptible to false information. Research day care false memories.
      * Presence of Other Witnesses → If other witnesses claim the same account as you do you’ll believe it. E.g. Washington DC Snipers
  + Explanation for Misinformation Effect
    - Memory Trace Replacement Theory
      * Original memory is altered, integrated events.
    - Coexistence Theory (Blocking Theory)
      * Two memories exist, the modified and original memory. The false memory is more recent and more powerful. This is very similar in nature to retroactive interference.
    - Response Bias Theory
      * Misleading post event information biases the subjects’ tendency to respond in a particular way.
    - Memory Trace Replacement Theory v. Coexistence Theory (Blocking Theory)
      * Look at notes.
    - Demand Characteristics
      * Features of the experiment that leads the subject to respond in a particular manner. They believe the subjects were playing along.
  + Misleading Information in a Court Room
    - Jennifer Thompson – Man broke into her apartment and raped her. Robert Calhoun was convicted, 1995 exonerated. Bobby Poole was actually the one convicted. She claimed she never met Bobby Poole in her life. Once she formed a memory, it stuck with her. This supports memory trace replacement theory.
  + Factors Affecting The Accuracy of Eyewitnesses
    - Weapon Focus – If you’re being attacked it draws away from the face. You’re less likely to notice the face due to increase emotional arousal.
      * Yerkes-Dodson Law – A moderate amount of arousal is best for performance.
      * Time Estimation – You are inaccurate at judging time.