# Memory & Cognition

## Exam 4 Review

* **Eyewitness Testimony**
  + They can be confident in the accuracy of their statements but confidence ≠ accuracy.
  + There is not a good way to tell a false memory from a real memory.
  + **Misinformation Effect**
    - **Loftus & Palmer (1974) - Implanting or changing memories**
      * By varying verb intensity subjects vary their answer.
    - **Loftus, Miller, & Burns (1978) – “Red Datsun” Study**
      * During the video the subjects are shown either a stop or yield sign. When asked questions they’re either given consistent or misleading information. Results: Consistent → 70%, Misleading → 43%
    - **When are we susceptible to misinformation?**
      * **Time** → If you provide false information immediately after the event, you will not accept it. Over time as memory fades you will become more influenced.
      * **Subtlety** → If false information is given subtlety you’ll likely be influenced more.
      * **Age** → Children are more susceptible to false information.
      * **Presence of Other Witnesses** → If other witnesses claim the same account as you do, you’re more likely to believe it.
    - **Explanation For Misinformation Effect**
      * **Memory Trace Replacement Theory**
        + Original memory is altered, integrating events. Supported by misleading information in a courtroom.
      * **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 @ notes
      * **Demand Characteristics**
        + Features of the experiment that leads the subject to respond in a particular way. They believe the subjects are playing along.
    - **Hypnosis**
      * Does not lead to more accurate memories. It makes them more confident, but also more likely to be wrong.
    - **Brain Fingerprinting**
      * Limitations – At the crime scene but not committer, would still know the information.
    - **Factors Affecting The Accuracy of Eyewitnesses**
      * **Weapon Focus** – If you’re being attacked it draws away from the face. You are then less likely to notice the face due to increased emotional arousal.
        + **Yerkes-Dodson Law** – A moderate amount of arousal is best for performance.
        + **Time Estimation** – You are inaccurate at judging time.
      * Face Recognition
        + Cross-race identification problem
        + Face Inversion Effect

Even if a familiar face is shown upside down, the probability of you correctly identifying it drops.

* + - * + Verbal Overshadowing

Act of describing a face can interfere with memory for the face.

* + - * Cognitive Interview (Fisher & Geiselman)
        + Mentally Reconstruct The Environment & Emotional Context

Take advantage of context dependent memory, encoding specificity.

* + - * + Report Everything, Including Partial or Incomplete Information

Helps reinstate original context

* + - * + Recount Events In a Variety Of Orders

Helps highlight gaps in memory, less likely to fill in with schema consistent information.

* + - * + Recount Events From a Variety Of Different Perspectives

Least Benefit

* + - * Asking open ended questions are better than direct questions.
      * Retrieval Inhibition – If only asked about part of the crime scene, you remember it better at the risk of other information.
* **Repression and the Recovered Memory Debate**
  + **Can memories be repressed?**
    - Repression, if it exists, is intentional forgetting of a highly traumatic, highly painful memory.
  + **Real or Implanted Memories**
    - Could they be false memories, accidentally, or intentionally implanted through misleading information?
  + **If real, how accurate are they?**
    - It’s unlikely that your memory went from 0% to 100% performance.
    - High arousal leads to poor accuracy, that’s the reason there’s repression.
  + **Can we distinguish between true and false recovered memories?**
    - True memories that were always present.
    - True memories that had been recovered during experiment (not abuse).
    - False memories created during experiment
    - Described in more details, but no emotional difference between true and false memories. There’s no good way to obtain good evidence either way.
  + **False Confessions**
    - **Voluntary Confessions** – No external pressure from the police. Come forward and confess the crime, to protect family friend or to get fame and recognition.
    - **Coerced Compliance** – They realize they aren’t guilty to receive award or escape punishment.
    - **Coerced Internalized** – An innocent person starts to believe they did an innocent crime. Vulnerability & Presentation of False Evidence.
* **Autobiographical Memories**
  + Memories of your life and personal experience.
  + Memories for adults start at around the age of 4. We’re unable to remember the first few years of our lives unless it’s traumatic or important.
  + **Infantile Amnesia**
    - **Psychodynamic View**
      * Froyd suggested that we do not remember these early childhood events due to repression. We fall in love with our moms when you’re a boy and resent your mother later.
    - Cognitive; Schema
      * Information is encoded and organized by infants in a different manner than adults. It’s not the way we retrieve information. It comes down to encoding specificity, your studying conditions should match your testing conditions. There’s no overlap in the means that we store information as adults and as children so we can’t retrieve the information.
    - Cognitive; Linguistic Development
      * We use language to help form new memories. Verbal rehearsal, etc. Pre-verbal children can’t use that strategy since they do not have language. If we can’t retrieve it based on them not having language, and it’s true that you develop language later in life, your first memory in life will be later. To test this you need cognitive skills that are normal but language delayed.
      * Groups
        + Hearing Individuals
        + Deaf Individuals Born to Deaf Parents – They learn language at the same rate as hearing children do, but just a different language.
        + Deaf Individuals Born to Hearing Parents – These children are usually language delayed because their parents have to learn ASL.
      * Conclusion
        + There was no difference between the groups. This suggest that language development does not impact memory development.