Ch. 6 Memory Errors

Errors of Omission

- Errors of omission- a mistake that consists of not doing something you should have done
    - Forgotten memories
    - Implies memory was encoded, stored, and then lost
        - Organic causes- trauma, illness, disease
        - Developmental causes- trauma, illness, disease
            - i.e. infantile amnesia
        - Time- memory fades over time, becomes less distinct
        - Repressed memories
            - Unconsciously blocked due to high level of stress or trauma
            - Controversy
                - Some studies conclude that it can occur while others dispute it
                - Some psychologists believe it can be uncovered with therapy while others believe process leads to false memories

Errors of Commission

- Errors of commission- a mistake that consists of doing something you should not have done
    - False memories- confabulation- implies distortion or malleability of memories
    - Recall of events that did not occur or misattribution of the source of a memory
- Types of memory errors-
    - Misinformation effect - the change in memory due to the presentation of information that is relevant to the target memory, the power of suggestion
    - Imagination inflation – simply imagining an event can cause a person to remember exaggerated details of a memory, or to remember an entire memory that never occurred
    - Consistency bias– distorting influence of present knowledge and beliefs on memory of the past; tendency to reconstruct the past to fit the present
    - Source confusion- incorrectly attributing specific information about the source of a memory

Source Monitoring

- Source monitoring- ability to identify where knowledge comes from; can be difficult to tell if a memory is something we observed, heard about, thought about, imagined, or even dreamt about
- Source monitoring error - caused by limited encoding of source information or disruption in the judgment process used in source-monitoring
    - External source monitoring
        - Discriminating between two externally retrieved sources
        - i.e. remembering which of two friends said something
    - Internal source monitoring
        - Discriminating between tow internally derived sources
        - i.e. remembering whether you said something or thought about saying something; did I turn off the stove or just think about it?
    - Reality monitoring
        - Discriminating between internal and external sources
        - i.e. remembering whether you witnessed something in person or saw it on TV

False Memory

- Original research done by Deese in 1959 (but it was ignored for a while)
    - Subjects- college students
        - Given lists of 12 related words to remember
        - Words in each list were highly associated with one word not in the list
            - List= bed, chair, couch, lamp, tv
            - False work= table
        - Asked for immediate recall
    - Findings
        - Falsely recalled critical lure, target word 44% of the time
        - Rate varies depending on the lsit
- Rodigier and McDermott replicated Deese's research in 1995
    - Used Deese's methodology, increased list length, used recognition instead of recall
    - Asked subjects to distinguish between remembering and knowing
        - Remembering- subjects asked to judge if they can mentally relive the experience of the item being presented
        - Knowing- subjects asked if they are confident that it occurred without having a memory for the event

DRM Paradigm

- Roediger and McDermott (1995) findings

    - Recognition of the lure 84% of the time – even more likely than words actually presented on the list
    - Subjects reported critical lures as 'remembered' - 72% of the time
    - Evidence of subjects 'remembering' events that never happened
- Widely studied and discussed ever since - procedure is known as the Deese-Roediger-McDermott (DRM) paradigm
- Explanations
    - Associative model of memory
        - Associated words are networked in memory
        - Activation of associated words spreads to critical lure- spreading activation
        - False recognition due to residual activation
    - Sourcing monitoring error- thinking about the lure during the list reading and incorrectly attributing that memory to the list

Misleading Questions

- Loftus & Palmer (1974)
    - Subjects
        - Observed a film of an automobile collision
        - They were asked leading questions- "about how fast were the cars going when they (verb'ed) each other"
        - One week later asked if there was broken glass (there was none)
    - Findings—
        - Estimates of speed were influenced by the language of the question, i.e. the verb used
        - Speed estimates influenced likelihood of reporting broken glass
        - Suggests memory was impaired and distorted by the language used to ask the question

Post-Event Misinformation

- Loftus Miller Burns (1978)
    - Subjects
        - Shown slides of an auto pedestrian accident
            - Half subjects are shown a yield sign
            - Other half shown a stop sign
        - Subjects then read a description about the event- either consistent or inconsistent with the yield or stop sign
        - Subjects tested on what they say
    - After 20 minutes
        - Control group given neutral information in description - 60% accurate