It was one of those perfect English autumnal days which occur more frequently in memory than in life.

P.D. James

Student Activity: Reading Sentences

Before reading the chapter, turn to page 217 and follow the instructions for the activity shown at the bottom of the page. Be sure to make a note of your results.

CogLab Activity: False Memory

Complete the False Memory lab activity BEFORE we start the 'Memory Construction' portion of this chapter. Submit data only...no writeup necessary

Core Issue #1: Introduction to Autobiographical Memory (AM)

- What distinction does Goldstein seem to draw between autobiographical and episodic memories?

- Some examples of AM:
  - I remember eating breakfast this morning. It was about 7:30, I was alone in my kitchen, I had cereal, toast and coffee, and I became frustrated when trying to read the newspaper...it had gotten wet because the delivery boy dropped it in a puddle by my front door.
  - I know that I went to Lincoln Elementary School in Lake City, IA.
  - I know that I drive an old blue Ford pickup.
  - I remember driving the pickup to Hy Vee today during my lunch hour, where I bought milk, coffee and eggs, and I talked to the cashier, Donna, about my son who used to work in the store.
LTM in general, and autobiographical memory in particular, has been researched far less than STM. Any thoughts about why?

What does Goldstein mean by the 'Multidimensional Nature of AM'?
- How do the Cabeza et al (2004) data fit into this?

Emotional enhancement of memory: the amygdala
- Here's some interesting recent data on emotion and memory from Lauren. And here's another...she must be an overachiever! ;-)

- What do the Talarico & Rubin (2003) data tell us about flashbulb memories?
Here are some more recent data on the time course of 'flashbulb' memories from 9/11.

The bottom line: emotional content seems to improve memory for the fact that an event occurred, and for some of the basic factual content of the event. It also increases our belief in the accuracy of our memory. But it does not improve memory for the autobiographical details of the event or for which emotions we experienced at the time.

Core Issue #2: Memory Construction

- First, the 'videotape' view of memory.

- Lots of contrary evidence:
  - Bartlett (1932)...what did he do and what did he find?
  - Source monitoring & misattributions (Marcia Johnson, 2006)
  - Source monitoring & familiarity (Jacoby, 1989)
  - Source monitoring & stereotypes
  - Pragmatic inference (see 'Reading Sentences' activity)
  - Scripts and schemas (discuss the 'False Memory' CogLab data)

- So...the Constructionist view of memory.
  - First, a digression....Helmholtz and unconscious inference (Unbewußte Schlusse). Perception always works w/ incomplete, ambiguous information. As a result, our perception of an object must rely on applying intelligence, experience and inference to the information that is available. Thus, we construct our perceptual world by applying intelligence, experience and inference to raw sensory info.

For example:
and:

A B C

12 13 14

and, finally, can you read this?

- In short, our perceptions are actually constructed by us, using the current (ambiguous) sensory input plus context, expectations, experience, values, etc.

- The basic constructivist idea:
  - When you have an experience (e.g., a birthday) your memory retains selective parts of the experience...sense impressions, emotions you were feeling at the time, information about context, etc...and these bits of information in memory will be of varying strength or clarity. The contents of memory are thus an incomplete, highly personal record of the actual event and will contain gaps and uncertainties. (The "incomplete puzzle" metaphor) These gaps are likely to increase with time.
  - When you try to recall the original event ("Let's see, what did I do on my last birthday?"), you will retrieve whatever bits and pieces are in memory and then use a variety of techniques (inference, subsequent information, expectations, logic, schemas, etc) to fill in the gaps, put the pieces together in a logical way and thus construct a "memory"
  - Memory for an event can therefore be expected to change over time, as some of the old information fades and as new experiences modify the way in which we put the pieces together.
  - Thus, we construct our memories by applying context, intelligence, subsequent information, logic, schemas, etc to fragmented and incomplete information.

Core Issue #3: Memory & Suggestion
Let's start this section with a first-hand account (thanks Stacie)

**Loftus & Palmer (1974): Reconstruction of an Automobile Accident** (Kirsten, Lauren, Elo)

People are really inaccurate when they judge speed. Why do you suppose they picked this to study?

For Experiment I, what was its main purpose?

procedure?

principle findings?

For Experiment II, what was its main purpose?

procedure?

principle findings?

What general conclusion about memory do the authors draw from their data?

**Loftus (1992): When a Lie Becomes Memory’s Truth** (Michaela, Tom, Stacie)

Summarize the basic research paradigm that she describes.

Is the size of the misinformation effect large enough to be concerned about it in real situations? Point to some data to support your answer.

Be ready to cite some examples of:

- items people modified in their memory.
- item that people created and added to their memory.

be ready to give a brief answer to each of Loftus’ 4 research questions, along with one research finding that supports each.

**Loftus & Pickrell (1995): Lost in a Mall** (Jarael, Erik, Keifer)

Describe the Lost in a Mall procedure. How does it differ from Loftus’ earlier work? What new question does it allow her to ask?

Of all the specific results she presents, which seem to be the most important?

What does this research study add to our understanding of how human memory operates?

**Loftus, Polonsky & Fullilove (1994): Memories of Childhood Sexual Abuse** (Kelsey, Jessica,
In a single sentence, describe the central question this paper wishes to address. (p 68)

What is typically meant by the term "repression"? (p 68)

Loftus devotes quite a lot of space to discussion of the frequency of abuse and repression. Why do you suppose this deserves such an extended discussion? (pp 68-70)

Some therapists have actively encouraged their clients to recall incidents of childhood abuse...even when the client initially claims that no such abuse occurred. According to Loftus, what is the logic behind this? Is it tied in any way to point C above? (p 69)

Results from the Briere & Conte studies seem very straightforward. What potential problems with interpreting the work does Loftus see? Where does the Herman & Schatzow study fit into all of this? (pp 70-71)

Describe the methods Loftus used to collect her data. How do you believe they stack up against the previous research? (pp 74-75)

Lots of numbers are presented in the Results section. After wading through all of them, identify a few findings that seem to be most critical for understanding the issue of abuse and repression. (pp 77-79)

Summarize the authors' conclusions...what do they believe their data mean? (pp 79-81)

Ferguson et al (1997): Misinformation in the Classroom

Some Factors Which Influence the Misinformation Effect:

A. Quality of the original encoding...how well could you see and how much attention did you pay in the first place? The more sketchy the original encoding of the event, the easier it will be to construct an incorrect memory.

B. Suggestive/misleading post-event information. Any misleading information that a person receives after an event may have the effect of altering the memory of the event. For example, during a police investigation an officer might (erroneously) suggest that the perpetrator had blonde hair, and an witness might then incorporate that "fact" into his/her memory of the event. As more time goes by, there is more and more opportunity for something like this to happen.

C. Source amnesia...forgetting where you heard something. A classic example is when you start telling a joke to a friend only to realize she or he originally told it to you. In this situation, you have misattributed the source of the joke to someone other than the original source. This can lead to two or more events becoming mixed together in memory.

D. Source credibility...misleading information from a highly credible source is more likely to produce false memories than if the information comes from a lower credibility source.

E. Decision criteria...how sure do you have to be before a vague feeling that "Maybe that happened" turns into "I remember that happening"? Outside factors (social pressures, expectations, etc) can sometimes influence us to misremember, and then over time we become more and more sure that our false/altered memories are correct.
Here is another way to alter memories. Thanks Kelsey.

**Eyewitness Testimony Case Study**

Respond to the questions at the end of the article and submit your answers to the ANGEL dropbox.