Schemas and Memory Abstraction

- Constructive approach (Bransford & Franks, 1971)
  - Constructive model of memory
  - Integrate information from individual sentences to construct larger ideas
- Once fused, can not untangle propositions
- Emphasizes active nature of our cognitive processes

Schemas and Memory Abstraction

- Pragmatic approach (Murphy & Shapiro, 1994)
  - Strategic control of attention
    - Can choose to remember verbatim or gist
  - Verbatim memory is especially accurate for insults or criticisms

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**TABLE 7.2**

PERCENTAGE OF “OLD” JUDGMENTS MADE TO TEST ITEMS IN MURPHY AND SHAPIRO’S (1994) STUDY.

<table>
<thead>
<tr>
<th></th>
<th>Blind</th>
<th>Semantic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irrelevant sentences</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>Hits (original sentences)</td>
<td>71%</td>
<td>86%</td>
</tr>
<tr>
<td>False alarms (paraphrases)</td>
<td>54%</td>
<td>43%</td>
</tr>
<tr>
<td>Hits minus false alarms</td>
<td>17%</td>
<td>43%</td>
</tr>
</tbody>
</table>

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Murphy & Shapiro (1994)
Schemas and Inferences in Memory

• People add their own general knowledge to encountered material
  – Remember that this information was presented in the original material
• Bartlett (1932)

Bartlett’s (1932) “The War of the Ghosts”

Read the following, then attempt to reproduce the story by setting it down from memory.

One night two young men from Egalena went down to the river to hunt seals, and while they were there it became foggy and cold. Then they heard voices, and they thought: “Maybe this is a war party.” Then armed to the teeth, and hid behind a big, low canoe came up, and they heard the noise of paddles, and saw one canoe coming up to them. There were five men in the canoe, and they said:
  “What do you think? We wish to take you along. We are going up the river to make war on the people.”
  One of the young men said: “I have no answer.”
  “Answer us to the canoe,” they said.
  “I will not go along; I might be killed. My relatives do not know where I have gone. But you,” he said turning to the other, “may go with them.”
  So one of the young men went, but the other returned home.
  And the men went up the river on a canoe on the other side of Kilalina. The people came down to the canoe, and then began to fight, and many were killed. But presently the young man heard one of the war party say: “Quick, let us go home; that Indian has been hit.” Now he thought: “Oh, they are ghosts.” He did not feel sick, but they said they had heard that.
  So the canoes went back to Egalena, and the young man went ashore to his house, and made a fire. And he told everybody and said: “Yes, I accompanied the ghosts, and we went to fight. Many of our fellows were killed, and many of those who attacked us were killed. They said they were not sick, and did not fall out of the canoe.”
  He told it all, and then he became quite sick. When the sun rose he fell down. Something black came out of his mouth. His face became contorted. The people jumped up and cried.
  He was dead.

Second, small, attempted about 4 months later.

There were two men in a boat, sailing towards an island. When they approached the island, some natives came running towards them, and informed them that there was fighting going on on the island, and invited them to join. One said to the other: “You had better go. I cannot very well become I have relatives expecting me, and they will not know what has become of me. But you have no one to expect you.” So one accompanied the natives, but the other returned.

Here there is a part I can’t remember. What I don’t know is how the man got to the fight. However, anyhow the man was in the midst of the fighting, and was wounded. The natives endeavored to persuade the man to return, but he assured them that he had not been wounded.

I have an idea that his fighting was the imitation of the natives.

The wounded man ultimately fell unconscious. He was taken from the fighting by the natives.

Then, I think it is, the natives describe what happened, and they seem to have imagined seeing a ghost coming out of his mouth. Really it was a kind of materialization of his breath. But the phantom was not in the story, but that is the idea I have. Ultimately the man died a day or two after the next day.
Reconstructive Memory

- Memory for meaningful material is reconstructive
- Two lines of evidence
  - Omissions
  - Normalization
- Bartlett the first to propose the schema construct

Memory for Prose

- Reproductive memory
  - Accurate recall certain aspects of original prose
- Constructive memory
  - Inferences drawn during comprehension become part of memory for the passage
- Reconstructive memory
  - Incorporate additional knowledge from memory after the fact

False Recognition and Recall

- Information can be falsely recognized or recalled when it matches our scripts
  - Includes our scripts for what typically occurs during a crime
Eyewitness Memory
Holst & Pezdek (1992)

• Asked Ss to list all the events typically associated with a robbery
• Tape-recorded transcript of mock trial
  – 4 robbery events stated
  – 4 robbery events unstated
• Tested memory (1 week delay)
  – Recalled 31% stated events; 15% unstated events
• Misleading information
  – Recalled 25% unstated events

Misinformation Effect

![Misinformation Effect Diagram]

Misinformation Effect (Estimates)

![Misinformation Effect Graph]
Repressed Memory Controversy

- Media flooded with reports of recovered memories of childhood abuse
- Those accused generally deny accusations
- Have torn apart previously happy families

Arguments for Repressed Memories

- Common for patients to bury traumatic incidents in their unconscious
- Childhood sexual abuse is a widespread problem
- Attribute upsurge in reports of abuse to increased sensitivity to the possibility of repressed memories

Arguments against Repressed Memories

- Suggestible patients convinced of abuse by therapists
  - Therapists working under assumption that all psychological problems result from sexual abuse
- Discredited cases of recovered memories
- Recanted repressed memories
- Psychological research
Psychological research

- Loftus – “Lost in the Mall”
- Roediger & graduate student – Imagery
- Roediger, Jacoby & McDermott (1996) - Repetition

For more information about the current state of the false memory debate, you can visit the following websites
- Remembering Dangerously
- The British False Memory Society
- Dispatch from the (un)civil memory wars