

Memory systems (cont.)

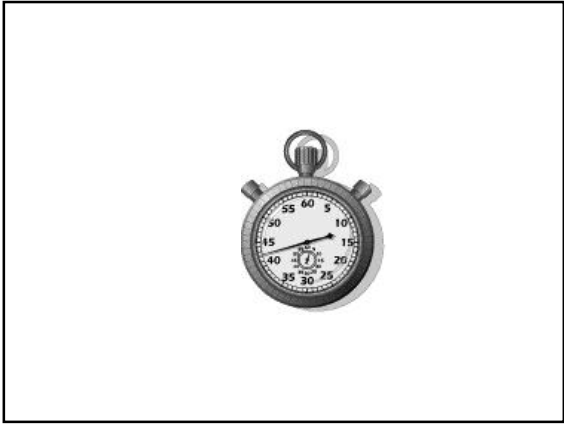
- Interactions among memory systems
- Episodic and semantic memory
- Phenomena in implicit memory
- How many memory systems are there?

Separate systems?

- We have talked about the systems as separate?
- Are the systems obviously separate?
- There are some interactions among systems.
 - Suggests that the distinctions may not be as clear-cut as they seem at first.

An example

door	open	shutter
glass	curtain	
pane	frame	
shade	view	
ledge	breeze	
sill	sash	
house	screen	



Recall as many words from the list as you can

What did you recall?

- How many of you recalled:
 - Door?
 - Glass?
 - Pane?
 - House?
 - Screen?
 - Shutter?
 - Window?

Here's the list again?

door	open	shutter
glass	curtain	
pane	frame	
shade	view	
ledge	breeze	
sill	sash	
house	screen	

Primacy effect?

Here's the list again?

door	open	shutter
glass	curtain	
pane	frame	
shade	view	
ledge	breeze	
sill	sash	
house	screen	

Primacy effect?

Where is window?
Many people recall it.

Semantic and episodic memory

- The list consists of frequent associates of the target word.
 - Presumably this leads to activation of the target concept
 - A property of semantic memory
- The word is identified as being present on list
 - An episodic memory
- Semantic memory is affecting episodic memory
- Are these “False Memories?”

The recovered memory debate

- Many reports of recovered memories
 - Traumatic events recalled after many years where they could not be recalled
 - Some people were convicted of crimes on the basis of recovered memories
 - Argument is that memories were “repressed”
 - Are the memories real?
- How could we tell?
 - It is generally impossible to verify old memories
- What sort of evidence would help resolve this?

Implanting memories

- Researchers have asked whether memories can be implanted?
 - If a false memory can be implanted, that would make us more skeptical about reports of recovered memories
 - Does not prove that recovered memories are false
 - Would provide a counterexplanation to observed recovered memories.
- Roediger and McDermott: Deese paradigm
 - These memories are not traumatic, though

More traumatic false memories

- Loftus and colleagues
 - Convinced people they were lost in a mall when they were 5 years old
 - Stories were based on details provided by family
 - Event never really occurred
 - Many participants have strong memories of the event
- Implications for recovered memories
 - Confidence in a memory does not mean that the memory is real

So, what about recovered memories?

- There are some cases where remembered traumatic events were corroborated
 - Not clear that the events were forgotten in the intirim
- It is easy to implant false memories
 - Some therapists have been sued successfully
- Reports of recovered memories should be treated with caution
 - Should not be used as a basis for conviction without some other corroborating evidence.

Semantic and implicit memory

- Is implicit memory a separate system?
- Seems to be defined by tasks:
 - Stem completion & Fragment completion
 - Priming in perceptual identification
- Contrasts with semantic and episodic memory
 - These types of memory are defined by kind of information and organization

Transfer Appropriate Processing

- Perhaps implicit memory is not a separate system
- Encoding specificity
 - As similarity of study to test increases, retrieval improves
 - Implicit tasks may be more like study than explicit tasks
 - Explicit tasks may be conceptual
 - Implicit tasks may be perceptual
 - Encoding may be perceptual in many cases.

So where does this leave us?

- Memory systems
 - Semantic vs. Episodic
 - Procedural vs. Declarative
 - Implicit vs. Explicit
- Pretty good evidence that procedural is separate from declarative
- Distinction between semantic and episodic is not as firm
- Implicit/Explicit distinction may reflect differences in processing
