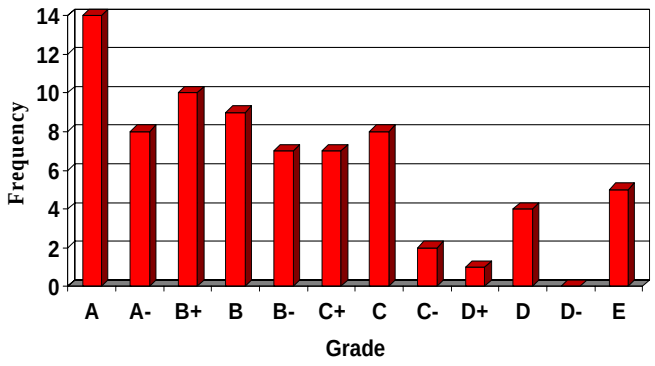
Exam 1

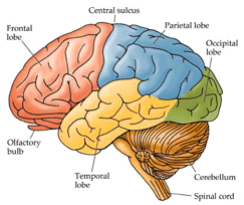
- Max possible: 144
- Highest grade in class: 140
- Mean: 81%, Modal grade A
  - *A 100-93*
  - *A- 92-90*
  - *B+ 89-87*
  - *B 86-83*
  - *B- 82-80*
  - *C+ 79-77*
  - *C 76-73*
  - *C- 72-70*
  - *D+ 69-67*
  - *D 66-63*
  - *D- 62-60*
  - *E below 60*

Exam 1 Distribution

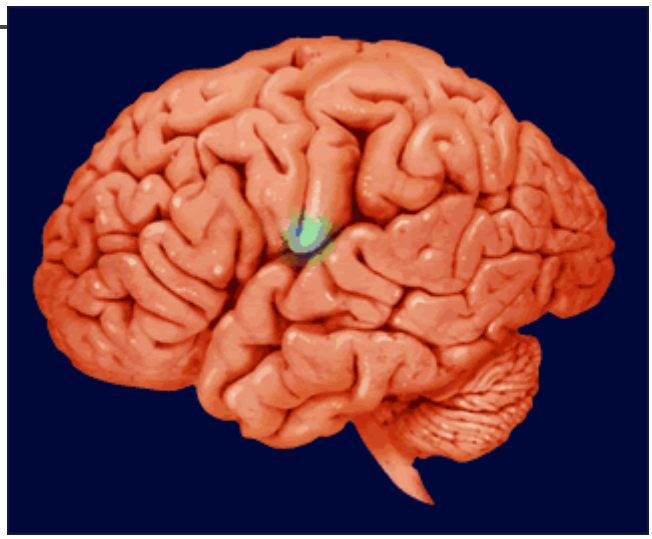


Varieties of Memory

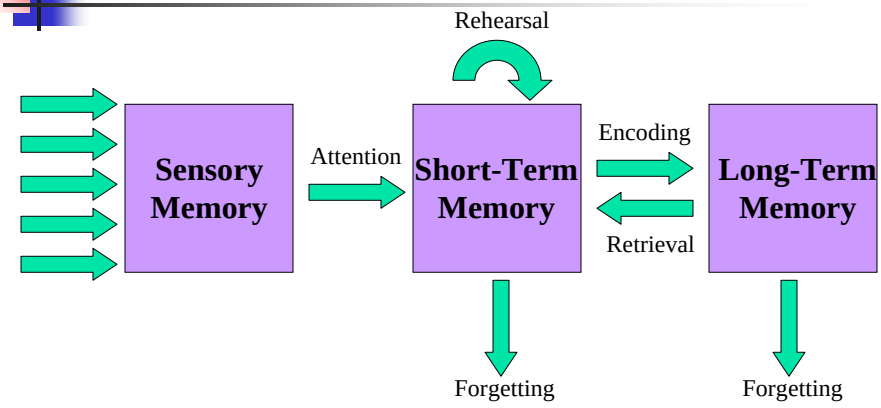
- Sensory, short, & long-term memory
- Episodic vs. semantic memory
- Procedural vs. declarative memory
- Explicit vs. implicit memory



Distributed Memory



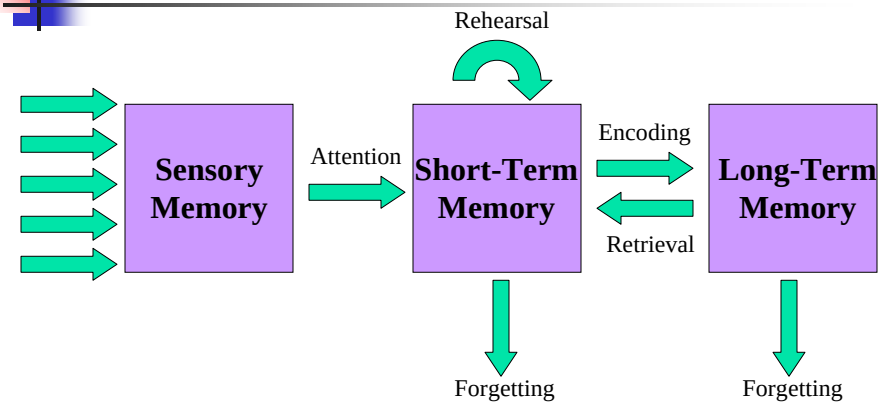
The Multi-Store Model



The Sensory Register

- External input buffer
- Separate stores for different senses
- Literal record of sensory information
- Entry cannot be avoided
- Information decays rapidly
- New information overwrites old

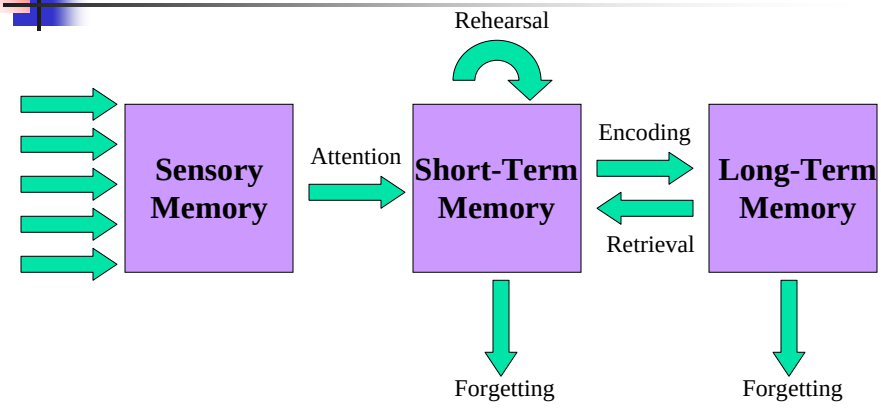
The Multi-Store Model



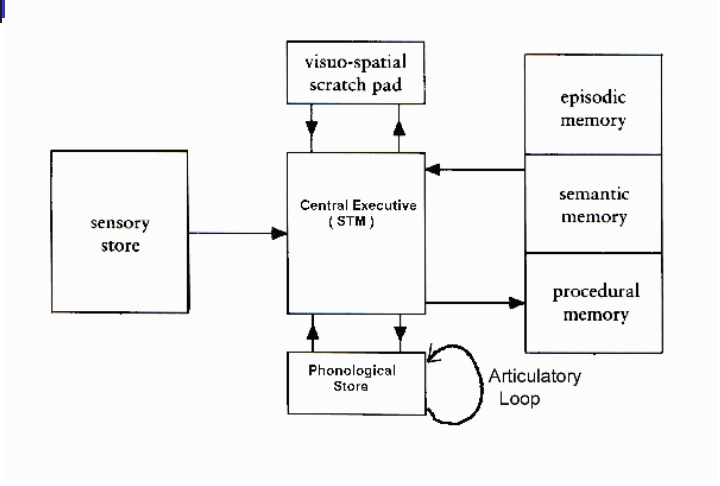
Short-Term Store

- "Working " or "short-term" memory
- Inputs from SR and LTS
- Consciousness
- Information can be maintained indefinitely, provided it is given constant attention
- Information decays in 15-20 seconds
- Limited capacity (7 + or - 2)

The Multi-Store Model

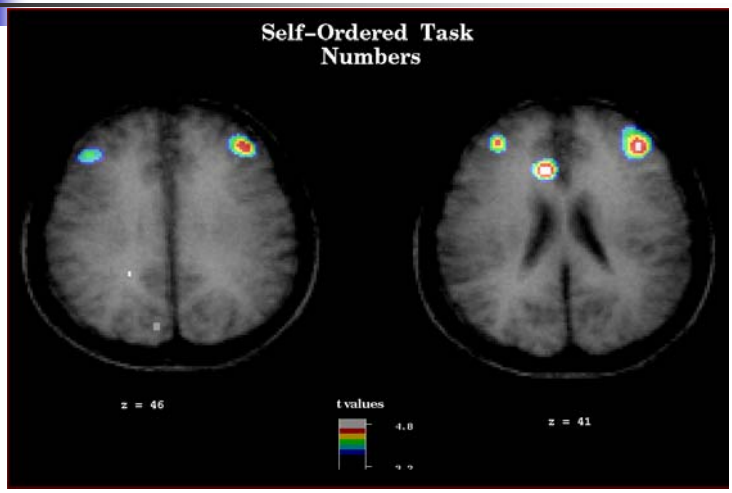


Working Memory



Neuroimaging of WM

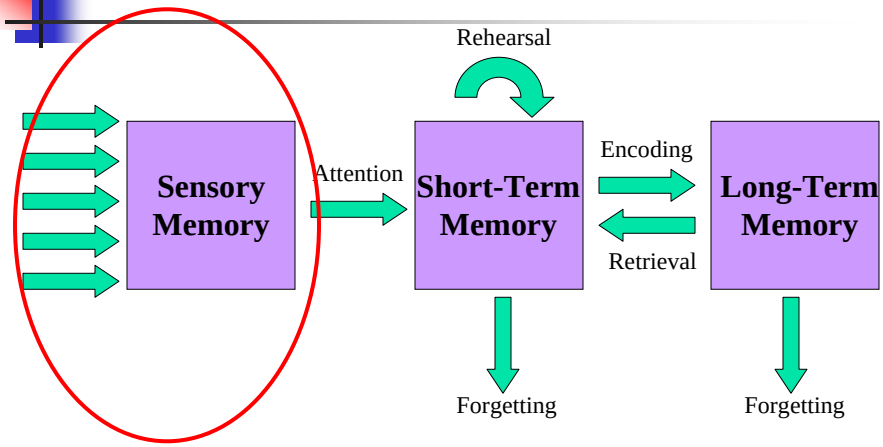
Bilateral activation within the dorsolateral prefrontal cortex



Long-Term Store

- Information comes from STS
- Conscious transfer -- Explicit memory
- Unconscious transfer -- Implicit memory
- Large capacity
- Can information be lost from LTS?
  - Poor retrieval cues
  - Memories overwritten?

The Multi-Store Model



The Iconic Store

- What can be seen in a brief presentation?
- Whole report technique
  - Report all the letters you can
  - Limitations of whole report technique
- Sperling's partial report technique
  - Report all the letters on a row
  - Subjects don't know which row until after the display has been removed

Whole Report Procedure

+

I G X E

N R + B P

J Q K C

Report what you saw

Whole Report Procedure

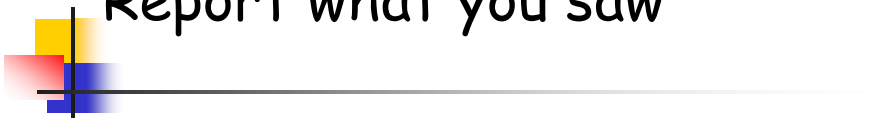
+

P B R N

C K + Q J

X N G I

Report what you saw



Limitations of Whole Report

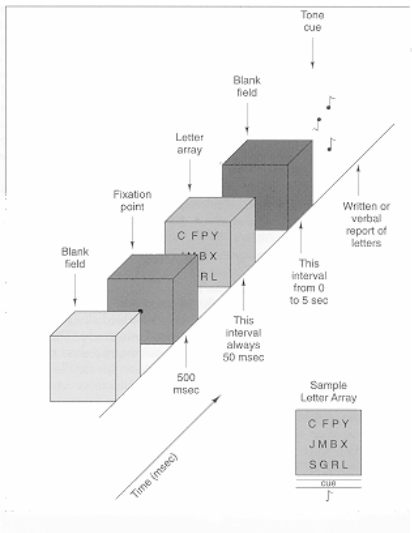
- People reported "seeing" more items than they could report
- Limitations on naming, not on seeing

Partial Report Technique

High

Middle

Low



Partial Report Procedure

+

I G X E

N R + B P

J Q K C

Report what you saw

Partial Report Procedure

+

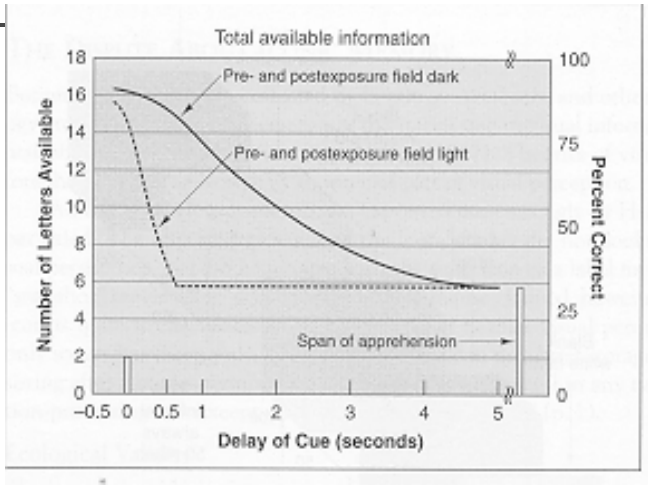
P B R N

C K + Q J

X N G I

Report what you saw

Partial Report Technique



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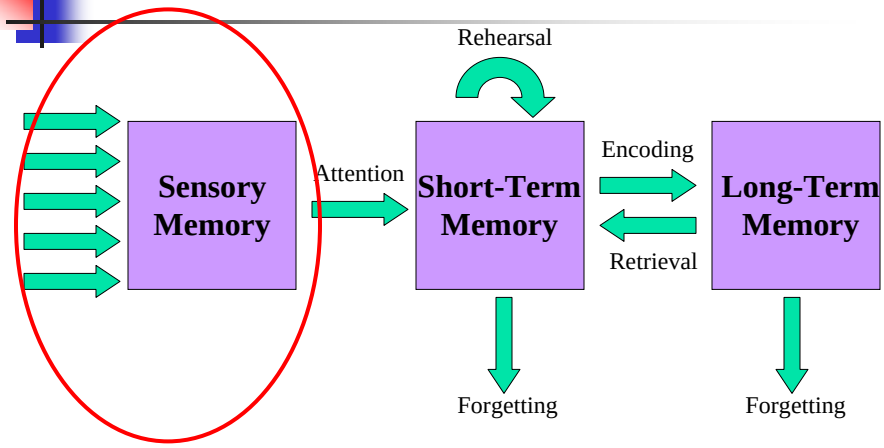

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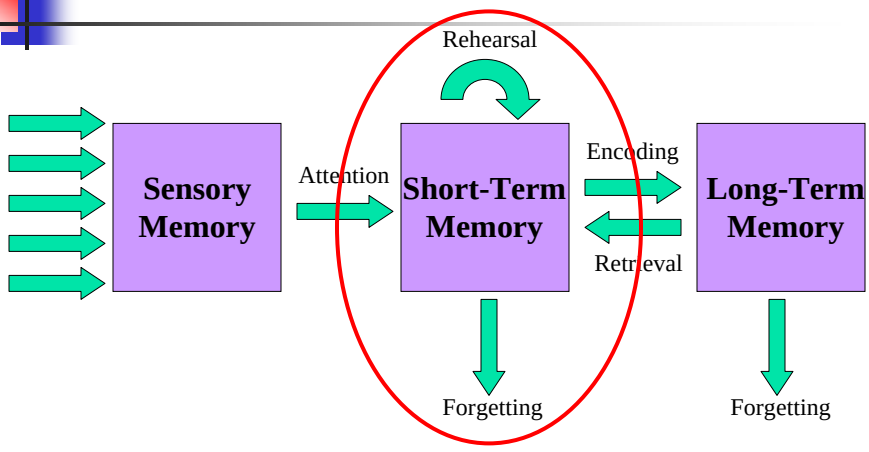


Short-Term Memory

- Short-term /working memory
- Limited capacity (7 + or - 2) or 2 sec.
- Inputs from SR and LTS
- Consciousness
- Coding: verbal/spatial
- Information can be maintained indefinitely, provided it is given constant attention
- Information decays in 15-20 seconds
- Rote vs Chunking mnemonics

Webster says… Mnemonic : Assisting or designed to assist memory

Short-Term Memory

- How is information lost?
  - Decay ==> Time
  - Interference ==> Older displaced by new
- Brown-Peterson Task
- Waugh & Norman

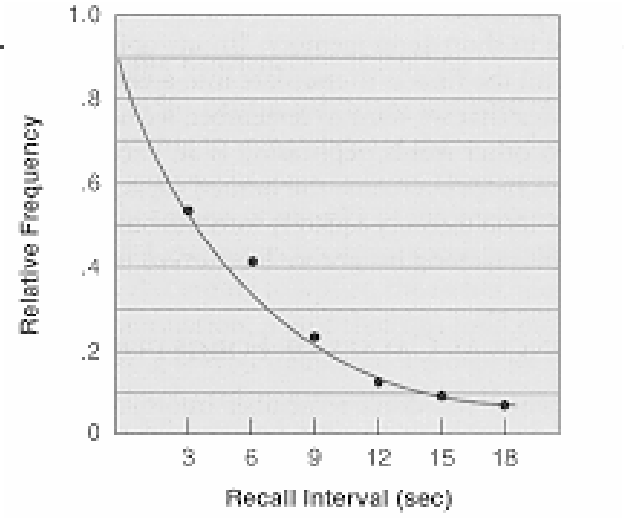
Brown-Peterson Task

- Subjects presented with trigram (XQJ)
- Experimenter presents number (257)
- Subject counts backwards by 3's (2/sec)
- After x seconds, subjects recall trigram

Brown-Peterson Task

XQJ	VPG	LTW
187	89	131
184	86	128
?	83	125
	80	122
	?	119
		116
		113
		?

Brown-Peterson Task



The Multi-Store Model