

Memory systems, processes and forgetting

Supported GRE teaching and original transfer practice

Identify the evidence

Identify the evidence

Order the memory stores by duration and capacity

Use the overview measurement lesson VI for research inference.

Concepts 1

Concepts 1

The modal model orders stores by duration. Sensory memory holds a brief, nearly complete trace — iconic for vision, echoic for hearing — and a mask within 200–300 ms destroys it. Short-term or working memory holds a few chunks for seconds; Miller's classic estimate is 7 ± 2 chunks, and rehearsal keeps material active. Long-term memory is durable and effectively unlimited.

Working memory is more than a short store: Baddeley's model has a central executive with a phonological loop for speech-like material and a visuospatial sketchpad for images. Chunking recodes items into familiar units, expanding effective capacity without expanding the store.

Concepts 2

Concepts 2

Long-term memory divides by content and awareness. Episodic memory is personal events; semantic memory is facts and knowledge; procedural memory is skills. Implicit memory shows in performance without deliberate recall (priming, skills); explicit memory is deliberate recall or recognition. A person can show priming for material they cannot consciously recollect.

Forgetting has identifiable mechanisms. Proactive interference is old learning disrupting new; retroactive interference is new learning disrupting old. Retrieval failure follows encoding specificity: cues matching the encoding context restore recall. The serial position curve (primacy and recency) separates long-term from immediate-store contributions.

Reason through the worked case

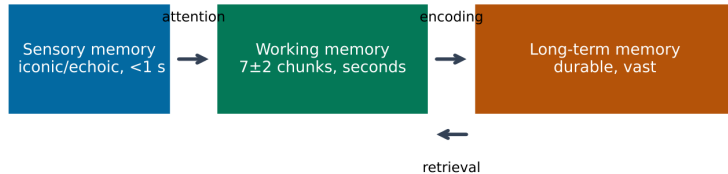
Reason through the worked case

Old account passwords make a new password harder to recall. Later the new password disrupts recall of the old one. Name each direction.

Old interfering with new is proactive interference; new interfering with old is retroactive interference. Name the target and the interfering material before applying the label. The case does not show that either memory has been erased.

Read the reviewed representation

Memory stores ordered by duration and capacity



Original schematic for Memory systems, processes and forgetting. Illustrative relationships and numbers are not research results.

Attempt an unfamiliar case

Attempt an unfamiliar case

A person improves at a motor task but cannot recall the training session. What distinction fits, and why is one case not proof of a fully isolated system?

Pause and write the explanation before continuing.

Check the transfer argument

Check the transfer argument

Preserved skill learning with poor episodic recall is consistent with distinguishing procedural/implicit from explicit episodic memory. Establish the tasks and repeated pattern before inferring a dissociation. Other task demands and measurement differences can contribute; one anecdote cannot locate a single brain system or prove complete independence.

Accept a different explanation when its evidence and limits are justified.

Limit the conclusion

Limit the conclusion

Treating working memory as a single box, or calling every memory failure decay; interference and cue-dependent retrieval failure account for most exam cases.

Original classroom cases are not official questions or personal clinical advice.

Check yourself

Independent retrieval

A newly learned list disrupts recall of an older list. Name the interference direction and a comparison that tests it.

Write your reasoning before comparing it with the methods and limits taught in this lesson.