Exercise walk-through

17.1

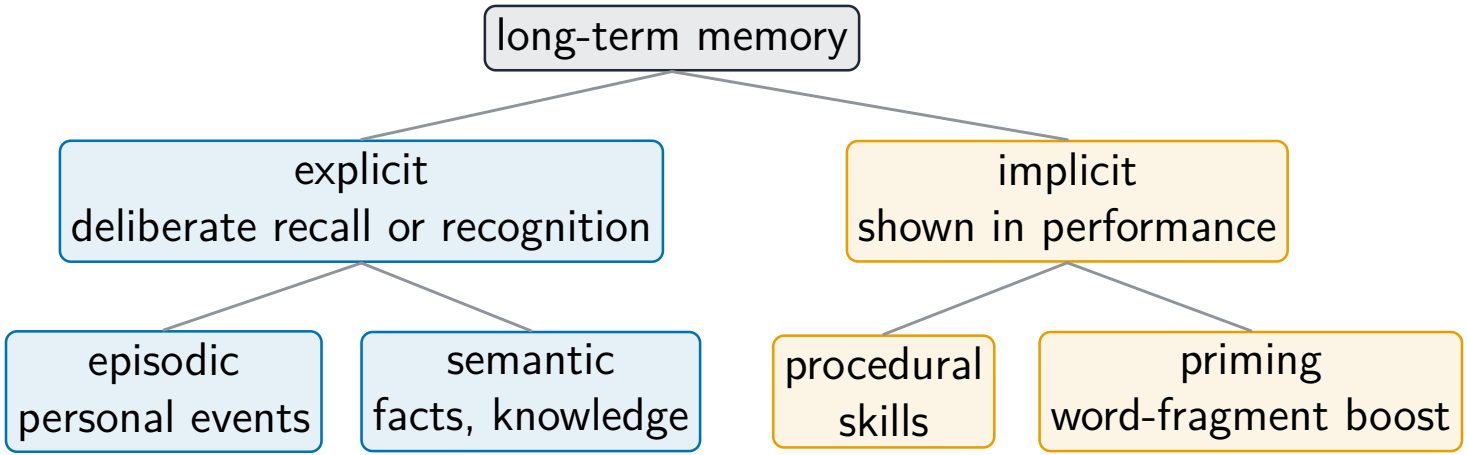
Memory systems, processes and forgetting: evidence and transfer

GRE · GRE Subject Test · GRE Psychology

The modal model

- Sensory memory: a brief, almost complete copy of the input. Sperling (1960) showed that a visual (iconic) image fades in under a second; the sound (echoic) trace lasts a few seconds.
- Short-term memory: a few items for about 20 seconds without rehearsal. Miller's 1956 estimate was 7 ± 2 items; later work suggests about 4 chunks.
- Long-term memory: lasting and practically unlimited.
- Chunking recodes items into familiar units ("FBI", "CIA") so that more information fits.

Figure: Kinds of long-term memory



- Long-term memory by awareness and content.
- Match each part of the diagram to the text.

Forgetting

- **Proactive interference** : old learning disrupts new learning.
- **Retroactive interference** : new learning disrupts old learning.
- Retrieval failure: the memory is stored but the cue does not reach it. Encoding specificity says recall is best when the cues at retrieval match those at learning. Divers who learned words underwater recalled them better underwater (Godden and Baddeley, 1975).
- Decay alone explains little; most exam cases are interference or retrieval failure.

Exercises 2.1–2.2

2.1 A letter array masked 250 ms after presentation is poorly reported. The store revealed by this masking sensitivity is: [1]

A. semantic memory B. working memory C. sensory memory D. procedural memory E. episodic memory



2.2 After switching from one textbook to a similar new one, old definitions keep intruding on the new ones. This is: [1]

A. retroactive interference B. proactive interference C. encoding specificity D. spontaneous recovery E. priming



Exercises 2.1·2.2

2.1 A letter array masked 250 ms after presentation is poorly reported. The store revealed by this masking sensitivity is: [1]

A. semantic memory B. working memory C. sensory memory D. procedural memory E. episodic memory



2.1 Answer: C. The brief, mask-sensitive iconic trace is sensory memory. The other options do not satisfy the stated defining conditions.

2.2 After switching from one textbook to a similar new one, old definitions keep intruding on the new ones. This is: [1]

A. retroactive interference B. proactive interference C. encoding specificity D. spontaneous recovery E. priming



2.2 Answer: B. Old learning disrupting new is proactive interference; new disrupting old would be retroactive. Compare the exact process, design or evidence, rather than an associated keyword.

Exercises 2.3·3.1

2.3 Revisit the worked case. State one conclusion its evidence supports and one stronger conclusion it does not support. Explain the difference. [2]



3.1 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? Give the interpretation, supporting reasoning, a relevant alternative or limitation, and an appropriate check. [4]



Exercises 2.3·3.1

2.3 Revisit the worked case. State one conclusion its evidence supports and one stronger conclusion it does not support. Explain the difference. [2]



2.3 Use the worked case evidence to support a bounded claim and explain why a causal, universal or stronger claim needs additional evidence. The claim must fit the specific design and observed process.

3.1 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? Give the interpretation, supporting reasoning, a relevant alternative or limitation, and an appropriate check. [4]



3.1 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. Award B1 each (authored) for the interpretation, its reasoning, a relevant limitation/alternative and an appropriate check, up to four points. Accept a different justified answer satisfying these demands.