

# Describing trace decay theory of forgetting essay sample



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Trace decay theory can be applied to explain forgetting from both STM and LTM. \* It is based on the idea that information creates a neurological trace in the brain, known as an engram, when it is encoded. This means a change has occurred in the structure of the brain. \* Hebb (1949) proposed that whilst learning is first taking place, the engram is very fragile and liable to disruption. It grows stronger and less likely to be destroyed the more learning (rehearsal) takes place. \* Without rehearsal or practice, this engram fades over time because it is not being strengthened. Forgetting therefore occurs because the information is not physically available for retrieval. \* Forgetting occurs from STM due to the stores limited duration if rehearsal does not take place (it will fade after thirty seconds). How do we evaluate theories /explanations?

\* " Evaluate" = AO2

\* " Evaluate" = what are the strengths (✓) and limitations (X) of the theory/explanation? What do I include in the strengths and limitations?  
✓ Evidence supporting the theory / explanation and why it supports it X  
Evidence refuting the theory / explanation and why it refutes it \* Is the theory / explanation scientific?

\* Is the theory a complete explanation of the behaviour (✓) or are there things that it cannot account for (X)?

\* Does the theory have practical applications? (✓)

\* Alternative (better) explanations (X)?

\* Comparisons with other theories / explanations.

13a) - The trace decay theory, revolves around the idea that a memory creates a neurological trace known as an engram in our brain, and it can be <https://assignbuster.com/describing-trace-decay-theory-of-forgetting-essay-sample/>

applied to explain forgetting from both STM and LTM. The less you rehearse the more chance of forgetting it and this neurological trace decaying. The engram also fades over time if it is not rehearsed, as it is not being strengthened. Forgetting therefore occurs because the information is not physically available for retrieval as the engram has faded away due to lack of rehearsal over time. 13b) - Trace decay cannot explain why some long-term memory engram's, such as flashbulb memories, seem to be resistant to decay. Another evaluative point is that it is supported by research conducted by Penfield who found that different memories could be appear in epileptic patients by probing different areas of the brain showing that memories do have a physical structure.

## ONE OTHER THEORY OF FORGETTING: TRACE DECAY

### AO1 Description

- \* Trace decay theory can be applied to explain forgetting from both STM and LTM.
- \* It is based on the idea that information creates a neurological trace in the brain, known as an engram, when it is encoded. This means a change has occurred in the structure of the brain.
- \* Hebb (1949) proposed that whilst learning is first taking place, the engram is very fragile and liable to disruption. It grows stronger and less likely to be destroyed the more learning (rehearsal) takes place.

\* Without rehearsal or practice, this engram fades over time because it is not being strengthened. Forgetting therefore occurs because the information is not physically available for retrieval.

\* Forgetting occurs from STM due to the stores limited duration if rehearsal does not take place (it will fade after thirty seconds).

## AO2 Evaluation

\* This theory is supported by research conducted by Penfield who found that different memories could be evoked in epileptic patients by probing different areas of the brain showing that memories do have a physical structure.

However, this does not prove that the engram will decay over time.

\* Research by Jenkins & Dallenbach (1924) refutes the trace decay theory: They found that participants who remained awake between learning and recall forgot more than those who slept. This suggests that interference rather than trace-decay causes forgetting.

\* Then again, this theory is relevant to understanding our everyday experiences of forgetting as it is consistent with the forgetting demonstrated by people with Alzheimer's disease who seem to lose memories (a physical process) rather than be unable to retrieve them.

\* Nevertheless, trace decay cannot explain why some long-term memory engram's, such as flashbulb memories, seem to be resistant to decay.

\* Trace decay also has difficulty explaining why material which cannot be remembered at one time can be remembered at a future time: If the trace has decayed it should never be available.

1. The first cue is from a smell which reminded him of his old job. This cue worked like a context dependent cue. Memory retrieval can be triggered by replication of the context in which the memory was encoded; in this case it was a smell, which is a context dependent cue. 2. I have walked into my primary school before and noticed the wall we all used to play around, we just seemed to congregate around this wall. It reminded me of running around it and playing tig when I was little, this is a context cue, which is context dependent, and in this case the cue was the setting and location.