

Declarative Memory ^[1]

Admin Name ^[2]26.4K reads

Declarative memory, sometimes known as explicit memory ^[3], involves the conscious recollection of memories such as events, facts, figures and locations.

Declarative memory is a form of long-term memory of which there are two types with the other known as procedural memory ^[4]. There are two subcategories: episodic ^[5] and semantic ^[6] memories. Episodic memories relate to specific things we have experienced while semantic memories involve information of a factual nature.

Remembering Facts

The whole purpose of memory is to recall events and experiences and retain information and skills we have learned over the years. With declarative memory, we remember certain events and facts. While procedural memory is subconscious, declarative involves information we have learned.

Examples of declarative memory at work are the recollection of phone numbers or our knowledge of the world's capital cities. In order to maintain memories of this nature, we need to be explicitly associated with the events in question. This means we have to find some way of studying or writing the memory down. With long-term memory ^[7], we have the ability to remember things for the rest of our lives, even when there are distractions.

Hippocampus

There are several parts of the brain where declarative memory is located with the chief areas being the temporal cortex and the hippocampus.

The hippocampus is especially important for retaining episodic memories. It helps to record these memories, identify commonalities between events and episodes and links these events into a specific memory space.

Declarative memory is known as a higher-level brain function with language and speech two prime examples of higher-level cognitive function. Despite the importance of the two aforementioned brain areas, the rest of the brain is also important because declarative memory will not function correctly without the brain's other parts all working in harmony.

Semantic and Episodic

As we have already seen, semantic memory is all about facts such as the meanings of words while episodic memories involve information of an autobiographical nature. It should be noted that both memory types are completely separate despite the fact they are located close to one another in the temporal and right frontal lobes in the brain's neocortex. Sensory declarative memory is also involved in this process but these memories quickly fade within seconds or fractions of a second once an event is over.

Amnesia

Those who suffer from amnesia have declarative memory problems and are used in experiments as a contrast to those with normal memory functions. These studies are important because they give an accurate representation of what declarative memory affects.

Brain damage can be revealed thanks to Magnetic Resonance Imaging (MRI) scans which allows physicians to uncover the exact part of the brain where declarative memory loss is present.

Amnesia specifically affects episodic memories as past experiences become lost. Semantic memories often fade as we grow older. Alzheimer's actually affects declarative and procedural [4] memory though those suffering from this illness have the ability to recollect past memories despite being unable to keep newer memories. Our declarative memory can also be affected by certain viruses which affect the hippocampus and medial temporal lobe.

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Links

[1] <https://staging.explorable.com/en/declarative-memory>

[2] <https://staging.explorable.com/en>

[3] <https://staging.explorable.com/explicit-memory>

[4] <https://staging.explorable.com/procedural-memory>

[5] <https://staging.explorable.com/episodic-memory>

[6] <https://staging.explorable.com/semantic-memory>

[7] <https://staging.explorable.com/long-term-memory>