

Memory Retrieval

by Sophia



WHAT'S COVERED

This lesson will look more at aspects of memory. You will also note how understanding where memory comes from can help improve your self and social awareness skill. You will do this by covering:

1. Availability vs. Accessibility

There are three stages that information goes through to become a memory:

- Encoding
- Storage
- Retrieval

Forgetting a memory can result from a failure in any one of these processes, and it is important to differentiate between the availability and accessibility of a memory.

Regarding **availability**, if a memory is not available, then there is a problem with either the encoding or the storage of that memory. It is not within long-term memory.

Regarding **accessibility**, if a memory is not accessible, then it is possible to make it available. It can still be inside of long-term storage, but there is a problem with the retrieval of that information.



TERMS TO KNOW

Availability

Where there is no problem with the encoding or storage of the memory and you have the memory.

Accessibility

When a memory has been encoded and stored, and you are also able to retrieve it.

2. Environmental Factors

If there is a problem with retrieval, how do you actually recover that data? Psychologists have found that certain environmental factors can affect your memory.

2a. Memory Cue

Different kinds of stimuli around a person can influence how memory is actually encoded in the brain. How those memories are retrieved can also depend on those stimuli. This is called a **memory cue**. A memory cue is a stimulus that is associated with a memory; it can assist in the retrieval of that memory.

➞ **EXAMPLE** If you forgot something you were planning to do in your house while walking through it, you might walk back to the room where you first had the thought in, and find that you remember what you were planning to do.

IN CONTEXT

Sensory information can be used as a memory cue. John is a student studying for a big test. While studying, he uses the smell of peppermint and associates it to important points that he has to remember for the test.

When the day of the test comes, he brings peppermint with him. If John has trouble remembering something during the test, he can use the peppermint to jog his memory and recall all of those facts. It may sound a little strange, but it is effective.



TERM TO KNOW

Memory Cue

A stimulus associated with a memory that can assist in retrieval.

2b. State-Dependent Learning

A individual's own personal environment can also affect their ability to recall memories. **State-dependent learning** means that memory retrieval can be affected by a person's bodily state at the time of their learning. Factors in the person's body can affect the encoding and retrieval of the information later.

➞ **EXAMPLE** Suppose you learned something when you were drinking alcohol. Later, you can't quite remember what it was, so you drink something alcoholic again. That state of intoxication can help in the retrieval process, if it was the current state when you were encoding that information.

State-dependent learning can also apply to emotional states like mood.

➞ **EXAMPLE** When you are sad, you may remember more sad things that you learned when you were previously depressed. This, in turn, can lead to feelings of more depression.



TERM TO KNOW

State-Dependent Learning

Memory retrieval can be affected by a person's bodily state at the time of learning.

3. Consolidation

Consolidation of memory involves forming a permanent long-term memory. Memory is formed through a process of encoding, storage, and retrieval. Encoding is the first part of forming a solid long-term memory, and

consolidation is the last part.

If a memory is not available to a person, then it wasn't encoded or stored properly. It will not be available at all; consolidation has been interrupted.



TERM TO KNOW

Consolidation

The process of forming permanent, long-term memories.

4. Interference

If a memory is not accessible, on the other hand, it can still be available. A person can still have the information consolidated in their long-term memory, but there is a problem with actually retrieving that memory.

One of the reasons that someone can have trouble retrieving a memory is that there is some **interference**. Interference refers to when new and old memories compete with each other and make it difficult for you to remember certain bits of information.

There are two different types of interference:

- Proactive interference, which is when old memories interfere with the retrieval of new memories.

➞ **EXAMPLE** You can't remember a new phone number that you've just learned because it's too similar to your old childhood phone number.

- Retroactive interference, which is when new memories interfere with the retrieval of old memories.

➞ **EXAMPLE** You may have trouble remembering the name of someone you met at a party last weekend because you just met a brand new group of people at a party that you're at now.



TERM TO KNOW

Interference

When new and old memories compete with each other and make it difficult to remember.

5. Suppression and Repression

While interference is a way that a person can unintentionally affect the retrieval of memories, memories can also be intentionally forgotten, either consciously or unconsciously. This is a mechanism by which a person protects themselves from psychological harm. This may be especially true for memories that are unpleasant or uncomfortable for a person.

Suppression is a way that a person intentionally and consciously attempts to forget a memory that they have.

➞ **EXAMPLE** A family member brings up something that makes you angry while you're in public. You can intentionally choose to either ignore or forget that memory to avoid a scene. This allows you to

revisit the situation later at a more appropriate time.

Repression, on the other hand, is unconsciously forgetting some unpleasant memory.

➔ **EXAMPLE** Emergency room surgeons can repress particularly bad memories of things that they saw while working, like horrific accidents or traumatic incidents that they might have encountered on the job.

It's important to note that repression can lead to all kinds of harmful psychological effects on its own, according to psychodynamic theories. While repression might be necessary in certain instances, it can also lead to negative effects in its own right.



Self and Social Awareness: Skill Tip

Understanding where memories come from and how to separate truth from fiction is a key part of your self and social awareness skill.



TERMS TO KNOW

Suppression

Consciously attempting to forget a memory.

Repression

Unconsciously forgetting a usually unpleasant memory.



SUMMARY

There is a difference in the **availability vs. accessibility** of a memory. If there is a failure in the encoding or storage of a memory, then the memory is unavailable. However, if a memory is not accessible, then it is possible to make it available. It can still be inside of long-term storage, but there is a problem with the retrieval of that information.

Environmental factors can play a part in memory. Memory cues, or certain stimuli associated with memories, can be used to help encode and retrieve memories. State-dependent learning can also impact memory, referring to the fact that memory retrieval can be affected by a person's bodily state, including mood, at the time of their learning.

A person might not be able to retrieve a memory if they have experienced interrupted **consolidation** when a memory isn't encoded or stored properly. Sometimes people experience **interference** with the retrieval process, when new and old memories compete with each other and make it difficult to remember.

A memory can be intentionally forgotten, either consciously or unconsciously, through **suppression and repression**. Suppression refers to pushing an unpleasant thought or emotion from your mind until there is a more appropriate time to deal with it. On the other hand, repression is unconsciously forgetting a (usually unpleasant) memory and can cause psychological harm, according to psychodynamic theorists.

Good luck!

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Memory Cue

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Repression

Unconsciously forgetting a usually unpleasant memory.

State-Dependent Learning

Memory retrieval can be affected by a person's bodily state at the time of learning.

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