Forgetting 7B

Ebbinghaus: First to study memory systematically.

The method of Saving: Difference between time taken to learn a list of items and the time it takes to relarn same list after some time had passed.

If first time took 10 trials and second time takes 5 trials amount of savings = 50%

Conclusions: Read pages 261-262

1.

2.

Critics argue he didn’t take variables like interest, prior knowledge and other factors into account.

Modern Theories:

Decay: The gradual disappearance of the mental representation of a stimulus (procedural, episodic or semantic). Although usually episodic or procedural.

Most Important in STM. If item is not rehearsed or elaborated it just gets pushed out by new stimuli.

Tip of Tongue Phenomenon:

Interference: New Information conflicting with old. New information pushes old out or corrupts old information.

Retroactive Interference: Learning new information interferes with recalling old information.

Proactive Interference: Old information interferes with new info being stored.

Sleep helps consolidate new information by both releasing chemicals/changing brain chemistry that aids memory as well as sheltering you from interference.

Repression of Memory:

Reliability of Memory: Elizabeth Loftus TED TALK

Biology and Memory:

Explain the role of the following in terms of memory:

Cell Assembly:

Longterm potention:

Long-term depression:

Hippocampus:

Anterograde Amnesia:

Retrograde Amnesia:

Neurotransmitters:

Briefly summarize the physical process of memory acquisition:

What are some of the major reasons why we forget information? One of today's best known memory researchers, Elizabeth Loftus, has identified four major reasons why people forget: retrieval failure, interference, failure to store, and motivated forgetting.

**1.  Retrieval Failure**

Have you ever felt like a piece of information has just vanished from memory? Or maybe you know that it's there, you just can't seem to find it. The inability to retrieve a memory is one of the most common causes of forgetting.

So why are we often unable to retrieve information from memory. One possible explanation retrieval failure is known as **decay theory.** According to this theory, a memory trace is created every time a new theory is formed. Decay theory suggests that over time, these memory traces begin to fade and disappear. If information is not retrieved and rehearsed, it will eventually be lost.

One problem with this theory, however, is that research has demonstrated that even memories which have not been rehearsed or remembered are remarkably stable in [long-term memory](http://psychology.about.com/od/memory/f/long-term-memory.htm).

**2.  Interference**

Another theory known as **interference theory** suggests that some memories compete and interfere with other memories. When information is very similar to other information that was previously stored in memory, interference is more likely to occur.

There are two basic types of interference:

* **Proactive interference** is when an old memory makes it more difficult or impossible to remember a new memory.

* **Retroactive interference** occurs when new information interferes with your ability to remember previously learned information.

**3.  Failure to Store**

Sometimes, losing information has less to do with forgetting and more to do with the fact that it never made it into long-term memory in the first place. *Encoding failures* sometimes prevent information from entering long-term memory.

In one well-known experiment, researchers asked participants to identify the correct U.S. penny out of a group of incorrect pennies (Nickerson & Adams). Try doing this experiment yourself by attempting to draw a penny from memory, and then compare your results to an actual penny.

How well did you do? Chances are that you were able to remember the shape and color, but you probably forgot other minor details. The reason for this is that only details necessary for distinguishing pennies from other coins were encoded into your long-term memory.

**4.  Motivated Forgetting**

Sometimes, we may actively work to forget memories, especially those of traumatic or disturbing events or experiences. The two basic forms of motivated forgetting are: suppression, a conscious form of forgetting, and repression, an unconscious form of forgetting.

However, the concept of repressed memories is not universally accepted by all psychologists. One of the problems with repressed memories is that it is difficult, if not impossible, to scientifically study whether or not a memory has been repressed. Also note that mental activities such as rehearsal and remembering are important ways of strengthening a memory, and memories of painful or traumatic life events are far less likely to be remembered, discussed, or rehearsed.