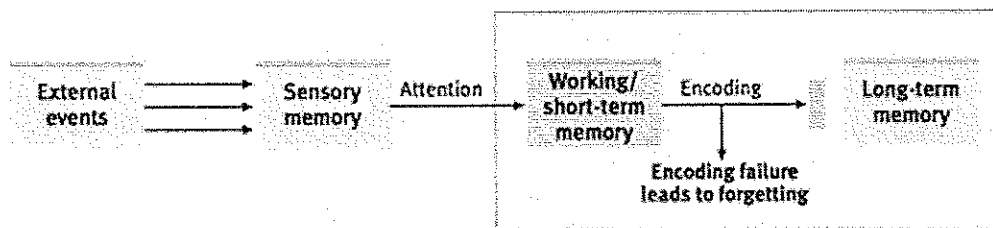


MODULE 33 FORGETTING, MEMORY CONSTRUCTION, AND MEMORY IMPROVEMENT

FORGETTING

- A good memory is helpful, but so is the ability to forget.
- **ANTEROGRADE AMNESIA** (50 First Dates) is an inability to form new memories while **RETROGRADE AMNESIA** (Dory) is an inability to retrieve information from one's past. With amnesia, these individuals do all these things with no awareness of having learned things. Implicit memories are still intact but the explicit memories for new people and events are lost.
- Encoding failures happen when little effort is enforced to form a memory. For instance, texting during class you may fail to encode details that need more attention for next week's test.



- Storage decay was experimented with by Hermann Ebbinghaus where he learned more lists of nonsense syllables and measured how much he retained when relearning each list, from 20 minutes to 30 days later. Declared Ebbinghaus Forgetting Curve.
- Retrieval failure happens when a memory is stored in long-term memory but cannot, for some odd reason, be accessed. This, in due time, leads us to forgetting.
- **PROACTIVE INTERFERENCE** occurs when prior learning disrupts your recall of new information. Old blocks new. Old password is conditioned and you cannot remember your new password.
- **RETROACTIVE INTERFERENCE** occurs when new learning disrupts recall of old information. New blocks old. Like learning a new locker combination and then not being able to recall your PE locker combination due to the new combination you learned.
- Information presented in the hour before sleep is protected from retroactive interference because the opportunity for interfering events is minimized. Not always is there a battle between old and new. When old information helps to learn new information this is known as positive transfer.
- “Memory is an “unreliable, self-serving historian”... Sigmund Freud proposed that we **REPRESS** painful or unacceptable memories to protect our self-concept and to minimize anxiety but the repressed memory can linger for later cue retrieval during therapy.

MEMORY CONSTRUCTION ERRORS

- Information acquired after an event alters memory of the event. We often construct our memories as we encode them, and every time we “replay” a memory, we replace the original with a slightly modified version (reconsolidation).
- Elizabeth Loftus has shown how eyewitnesses reconstruct their memories after a crime or an accident. Smashed vs hit ... How bad was the accident? Loftus found that word choices can alter memories. This is now known as **MISINFORMATION EFFECT**, or incorporating misleading information into one’s memory of an event.
- Even repeatedly imagining nonexistent actions and events can create false memories.
- **SOURCE AMNESIA** is the attribution of a wrong source on an event we have experienced, heard about, read about, or imagined. Source amnesia, along with the misinformation effect, is at the heart of many false memories.
- **DÉJÀ VU** is that eerie sense that “I’ve experienced this before.” Cues from the current situation may unconsciously trigger retrieval of an earlier experience. Normally, we experience a feeling of familiarity (thanks to temporal lobe processing) before we consciously remember details (thanks to hippocampus and frontal lobe processing).
- False memories can be very persistent.
- Suggestive interviewing can mold memories to form. When neutral words are used, memories are recalled more accurately.

IMPROVING MEMORY

- Rehearse repeatedly using the spacing effect.
- Make the material meaningful. Apply concepts to your own words. Understand and organize information.
- Activate retrieval cues.
- Use mnemonic devices. Associate items with peg words. Chunk information.
- Minimize interference by studying before you go to sleep
- Sleep more and often
- Test your knowledge, both to rehearse it and to find out what you don’t yet know.

BE ABLE TO ANSWER: How would source amnesia affect us if we were to remember all of our waking experience as well as all of our dreams?

Can you offer examples of proactive and retroactive interference?

What are the recommended memory strategies you just read about?

PRACTICE FRQ: Tasnia feels like she encodes material well, but still forgets the material on test day. Explain how her forgetting might be related to problems with each of the following: storage and retrieval.