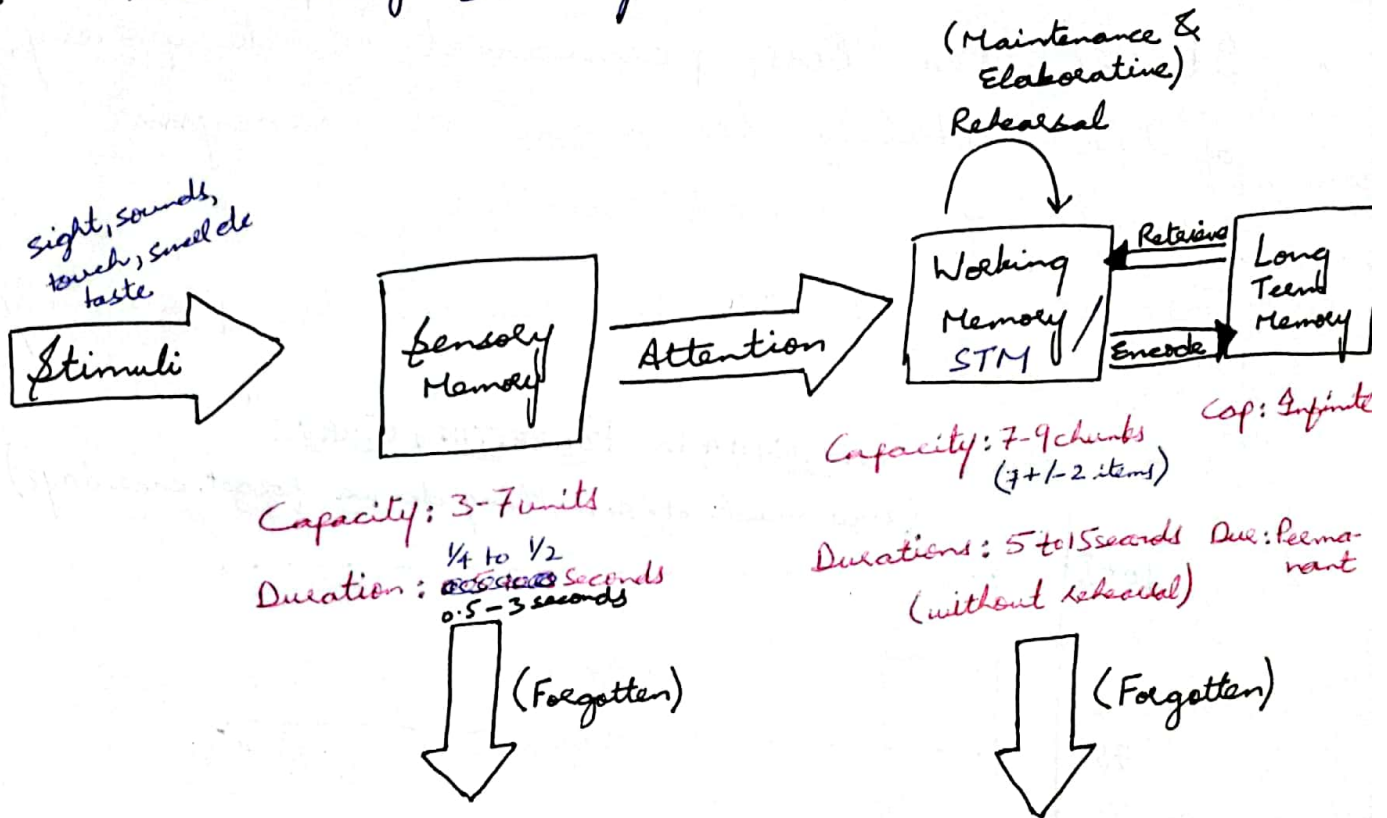


MODELS OF MEMORY

- Models of memory provide abstract representations of how memory is believed to work. Below are the models proposed over the years by various psychologists.

1) ATKINSON - SHIFFRIN MODEL:-

- Also known as Multi-store model.
- First recognized by Atkinson & Shiffrin (1968).

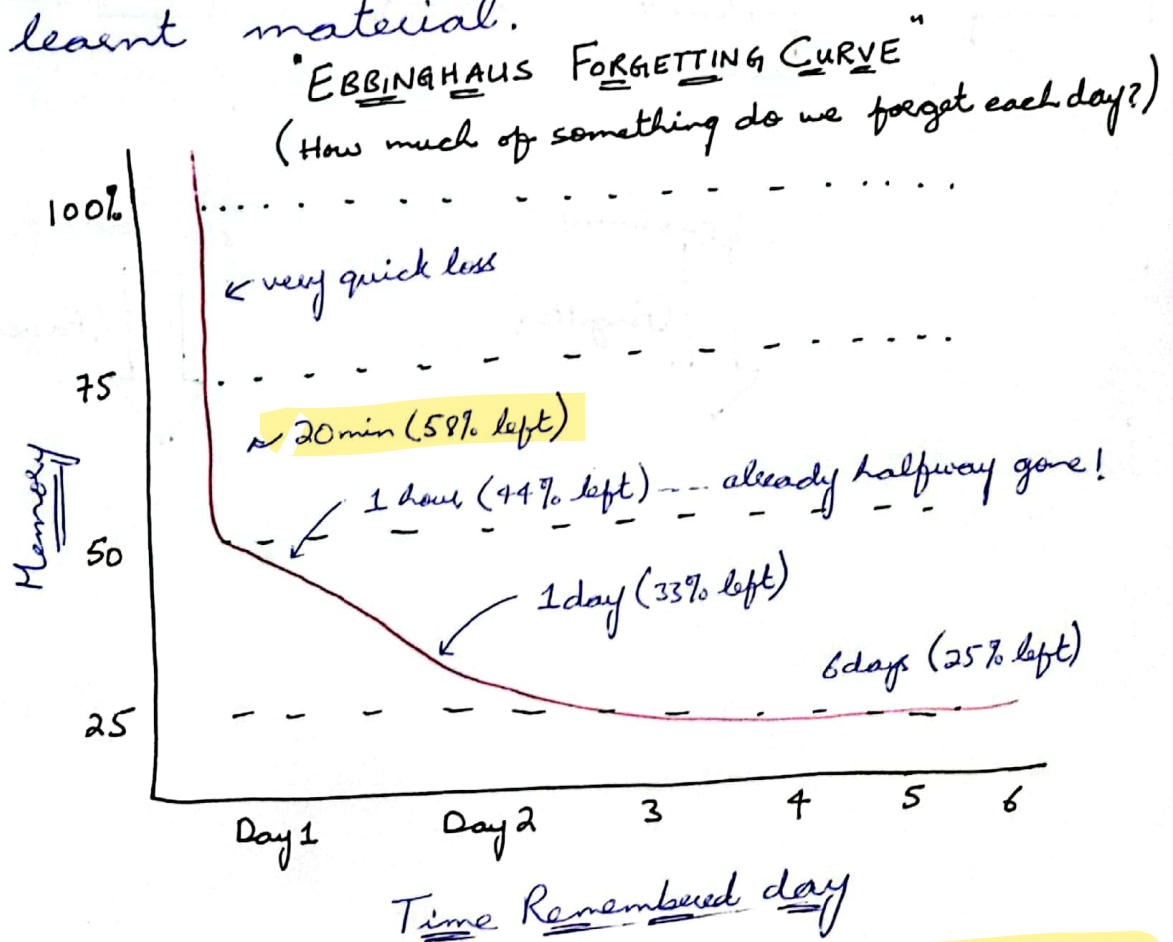


2) EBBINGHAUS THEORY:-

- German Psychologist, Hermann Ebbinghaus, was the first person to do scientific studies of forgetting, using himself as a subject.

• FORGETTING:

- It is the opposite of remembering.
- It is the loss, permanent or temporary, of the ability to recall or recognize something learned earlier.
- This is inability to recall the previously learnt material.



- * Memory declines the sharpest within 20 minutes of initial learning, & then after an hour, our memory loses about half of the new information. After 24 hours (1 day), the curve flattens out.

USES OF FORGETTING:

- Lack of attention / Concentration
- Lack of sleep
- Medications
- Health issues
- Aging
- Alcohol
- Stress & Anxiety
- Depression
- Motivated Forgetting

* Why we Forget:-

- One reason is that we may not paid attention to the material in the first place - a failure of encoding.
- But what about material that has been encoded into memory & that can't later be remembered???
- Several processes ^{account} for memory failures, including decay, interference and cue-dependent forgetting.

1) DECAY:

- The loss of information in memory through its nonuse.
- It proposes that we do not remember something $\frac{1}{2}$ of the passage of time diminishes.
- It suggest that memories are like traces which fade as time goes by.

E.g: You might not remember the name of your first grade teacher because that was decades ago.

E.g: Sometimes we forget a person's name even though we have just met them.

E.g: You are more likely to remember your very first day of college than all of the intervening days b/w it & graduation.

2) INTERFERENCE:

- The phenomenon by which information in memory disrupts the recall of other information.

E.g: If I'm trying to recall my college classmate Jake's name & all I can remember is the name of another classmate, James, interference may be at work.

- It is a memory phenomenon in which some memories interfere with the retrieval of other memories.
- It occurs when we can't access the target memory because other similar memories make it difficult to do so.

E.g: After changing your mobile phone number, you have a difficult time remembering the new number, so you keep accidentally giving people your old number.

(The memory of your old # interferes with your ability to recall your new #).

TYPES OF INTERFERENCE:

There are actually two sorts of interference that influence forgetting.

- 1) Proactive (2) Retroactive

(The Before & After of Forgetting)

1) PROACTIVE INTERFERENCE:-

- Interference in which information learned earlier disrupts the recall of material learned later.
- In which old memories disrupt/^{interfere} the retrieval of new memories.
- B/c old memories are often better rehearsed & more strongly cemented in the long-term memory, it is often easier to recall previously learned information rather than more recent learning.

E.g: If you move into a new house, you might find yourself accidentally writing your old address down when filling out forms.

(The older memory of your previous address makes it more difficult to recall your new address).

E.g: A teacher may struggle to learn the names of new students each year b/c they keep confusing them with the names of students from previous years.

E.g: New mobile #, old #.

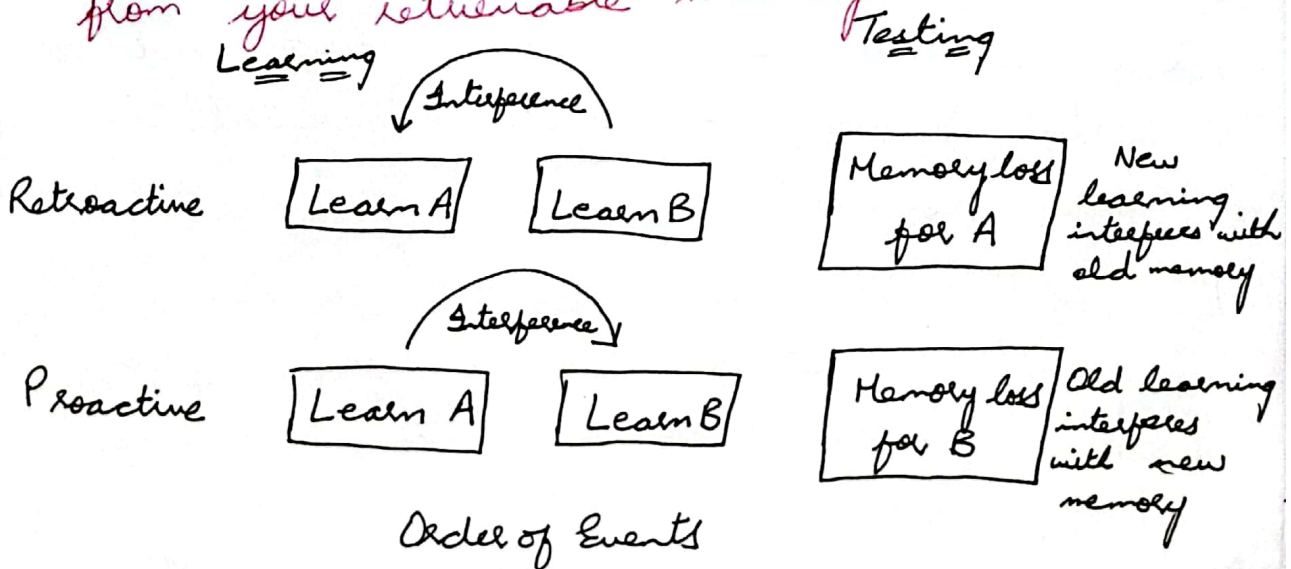
2) RETROACTIVE INTERFERENCE

- Interference in which material that was learned ~~earlier~~ later disrupts the retrieval of information that was learned earlier.
- When new information interferes with your ability to remember previously learned information.
- Learning new things can make it more difficult to recall things that we already know.

E.g: Once you have learned a new mobile #, it is often very difficult to recall your old number.

E.g: After we leave high school, we go on to college or the workplace where we learn the names of our new peers. Often, this causes us to push the names of old classmates out of our memories.

E.g: After someone starts dating someone new, the name of your Ex starts disappearing from your retrievable memory.



PENDANT FORGETTING:- (Memory Retrieval Failure):-

where a person is unable to remember information in the absence of a retrieval cues (Chandler & Gargano, 1995).

- It is the failure to recall a memory due to missing stimuli or cues that were present at the time the memory was encoded.

E.g: searching for a book in a library without the reference number, title, author or even subject.

E.g: You may not be able to remember where you lost a set of keys until you mentally walk through your day, thinking of each place you visited. When you think of ~~each~~ the place you lost the keys - say, the library - the retrieval cue of the library may be sufficient to help you recall that you left them on the desk in the library. Without that retrieval cue, you may be unable to recall the location of the keys.

* Memory Dysfunctions: Afflictions of F

2) ALZHEIMER'S DISEASE:- (low acetylcholine)

- A progressive brain disorder that leads a gradual and irreversible decline in cognitive abilities like thinking, memory, decision making, problem solving, behaviour & learning.
- Progressive % eventually symptoms grow severe enough to interfere with daily tasks.
- Initially, symptoms appears as simple forgetfulness of things such as appointments & birthdays. As the disease progresses, memory loss becomes more profound, & even the simplest tasks as using a telephone - are forgotten.

2) AMNESIA:-

- Brain trauma, or a brain disease, can lead to a severe form of forgetfulness called amnesia.
- Amnesia is a symptom while dementia is a disease.
- Amnesia is another word for memory loss.

⇒ TWO TYPES:-

1) RETROGRADE AMNESIA:-

- It describes amnesia where you can't form new memories that were formed before the event that caused the amnesia. It usually affects recently stored past memories, not memories from years ago.

E.g.: Someone might forget whether or not they own a car, what type it is, and when they bought it, - but they will still know how to drive. (Memory loss usually involves facts rather than skills).

- Being able to recall older long-term memories such as events that occurred during childhood.

2) ANTEROGRADE AMNESIA:-

- It is a type of memory loss that occurs when you can't form new memories. (after the incident)
- In the most extreme cases, this means one permanently lose the ability to learn or retain any new information.
- Impaired capacity for new learning.

E.g.: Forget a recent meal.

E.g.: Forget a new phone #.

E.g.: Someone forgets what they were doing 30 seconds ago.

E.g.: Someone they have recently met.

3) KORSAKOFF'S SYNDROME:-

- A chronic memory disorder caused by severe deficiency of thiamine (vitamin B-1). It is mostly caused by alcohol misuse, but certain other conditions also can cause the syndrome. (deficiency of this vitamin may be caused due to)
- It may be caused by alcohol abuse, dietary deficiencies, prolonged vomiting, eating disorders, the effects of chemotherapy.

* Major symptoms:-

- Confusion (delirium)
- Memory loss (particularly memory of events that happened after the person developed the condition.
- Hallucinations
- Repeating the same story again & again.

E.g: Individuals may seem able to carry on a conversation but moments later are unable to recall that the conversation took place or with whom they spoke.

SYNDROME: A group of signs & symptoms that occur together & characterize a particular abnormality or condition.

* REPRESSION:- (Sigmund Freud) (Motivated Forgetting)

- It is the unconscious blocking/forgetting of unpleasant emotions, impulses, memories & thoughts from your conscious mind.
- It try to minimize feelings of guilt & anxiety.

E.g: A child suffers abuse by a parent, represses the memories, & becomes completely unaware of them as a young adult. The repressed memories of abuse may still affect this person's behavior by causing difficulty in forming relationships.

E.g.: An accident victim nearly dies but remembers none of the details of the accident.

E.g.: A man has a phobia of snakes but can not remember the first time he was afraid of them.