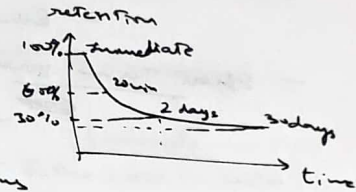


Notes

MEMORY

→ Ebbinghaus memory curve

- made list of random 3 letter words, tested on himself
- We ~~forget~~ forget 50% of info in 30 mins
- The things that we remember for 2 days ~~are~~ we are most likely to remember it for long time. (Rehearsing)
- Rehearsal improves retention



→ serial position effect

- Primacy effect: more likely to remember the first things on the list
- Recency effect: more likely to remember the last things on list
- The middle items have the worst retention.
- Recency fades, primacy may remain.

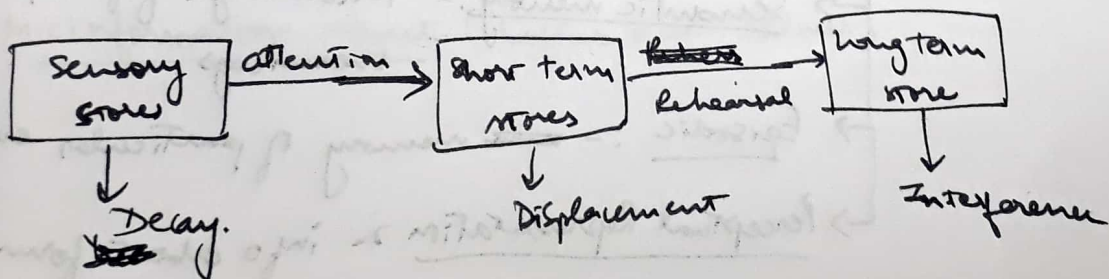
⇒ Perspectives about memory

- Structuralist
- Behaviouralist
- Dynamic

⇒ Structuralist: stages of info processing

- storage
- retrieval

~~ATK~~ - Atkinson and Shiffrin's model of memory



- memory stores: - ~~any~~ ^{convert} ~~to~~ ^{to} ~~1 to 4~~ ^{to 4}
- Duration 1 to 4
- T-chonic \rightarrow Key
- Echoic \Rightarrow auditory store (30ms \rightarrow 1/1000s)
- Short Term stores: - Duration (20 - 100 seconds)
- storage capacity
- With rehearsal, memory goes to Long Term.

\Rightarrow Biologically, can remember only 7 ± 2 things at a time

- chunking can improve STM capacity (short term memory)

\Rightarrow Spelling (George) - ~~flashed cards with~~ 3

KZR
QBT
SGN } \rightarrow flashed such cards to people for $1/10^m$ of sec.

- Asked people to recall, people only got some of them
- Then he played a game tone and corresponding for each row and people ~~recall~~ recall improved

Structuralist View

\rightarrow Working memory: Cognitive work is happening, temporary storage

- like STM, whatever is in attention
- Multiple subsystems - auditory and visual visuospatial
- Unlike STM, capacity based on rehearsal and decay

\rightarrow Semantic memory: - knowledge of facts, vocab, meanings

\rightarrow Episodic :- ~~the~~ memory of particular event

\rightarrow Perceptual Representation :- info about form and structure of objects and words

↳ Procedural memory: - memory of how to do things like playing badminton, swim, ride a cycle, etc.
- kind of like muscle mem.

Procedural perspective :- Memory is viewed as a ~~process~~ process rather than store

- Craik and Lockhart (Levels of Processing)

<u>Encoding</u>	<u>Level</u>	<u>Example</u>
- structural / Physical	Shallow	Is the word in caps
- Phonemic	Intermediate	Does it rhyme with - ?
- Semantic (meaning)	Deep	Is it an eg. of fruit?

⇒ deeper the processing, better the retention

⇒ Rehearsal:
→ Maintenance rehearsal (mugging)
→ Elaborative " (making connections and associations)

⇒ Levels
⇒ 3 dimensions linked to level / depth of processing

- Elaboration : rehearsal
- Distinctiveness
- self-~~refer~~reference effect: - we tend to remember info relevant to us.

Dynamic Perspective

- Film of Traffic accident shown
 - Ditt groups of people were asked "How fast the cars were going when they ~~verb~~ speed estimate"
- | verb | speed estimate |
|-----------|----------------|
| Smashed | 40.8 |
| collided | 39.3 |
| Bumped | 38.1 |
| hit | 34 |
| contacted | 31.8 |

- After 1 week, they are asked "Do you remember any broken glass?" (No broken glass in reality)

	Smashed	hit	Control
Yes	16	7	6
No	34	43	44

- Eye witness Testimony can be false / Tampered
- ~~Tamper~~ Suggestive interrogation
- Semantic effect on speed.

Neurobiology of Memory

- Hippocampus :- new memories are formed
 - Densely packed with ~~neural~~ neural layers
 - connection to the cortex, may lead to Transfer of memories to LTM
- Cerebellum - ~~Procedural~~ Procedural memory
 - classical conditioning
 - Implicit memories

- Forgetting
- Encoding failure
 - Storage Decay
 - Retrieval failure
 - Interference

→ Proactive: old info impairs ability to encode new info.

→ Retrospective: new info impairs retrieval of old info

Aging :- semantic is not affected

- Episodic ~~is~~ affected
- Hippocampus may shrink

- Stress - cortisol damages hippocampus

- Alzheimer's: β -amyloid plaques

- Dementia: not enough blood flow to brain

Amnesia:

- Retrospective: events before the incident gone
- Anterograde: new memories fade
- Psychogenic: Traumatic event caused mem. loss

