

Retrieval

How do we recall the information we thought we remembered?



Lets Jog Our Memory!!!!!!!



Recall versus Recognition

I probably cannot recall the Smurfs, but can I recognize them?



Lazy Smurf or Lethargic Smurf

Papa Smurf or Daddy Smurf

Handy Smurf or Practical Smurf

Brainy Smurf or Intellectual Smurf

Clumsy Smurf or Inept Smurf

Retrieval Cues

- Things that help us remember by activating our memory
- We often use a process called **priming** (the activation of associations in our memory) to help us retrieve information.



The wakening of
associations

- William James

PRIMING EFFECT

- Priming effect occurs when people respond faster or better to an item if a similar item preceded it.



Context Effects

- Putting yourself back in the same context you experienced (encoded) something primes your memory retrieval.
- If you study on your favorite chair at home, you will probably score higher if you also took the test on the chair.



deja vu

Sometimes, being in a context similar to one we've been in before may trigger what Neo experienced...



Déjà Vu

Is déjà vu really a glitch in the Matrix?



- That eerie sense that you have experienced something before.
- More likely to occur when you are tired or stressed
- What is occurring is that the current situation cues past experiences that are very similar to the present one- your mind gets confused.

Mood-Congruent Memory

- The tendency to recall experiences that are consistent with one's current good or bad mood.
- If you are depressed, you will more likely recall sad memories from your past.
- Moods also affect that way you interpret other people's behavior

State-Dependent Memory

- We retrieve information best when we are in the same state as we were when we first performed or learned the task.





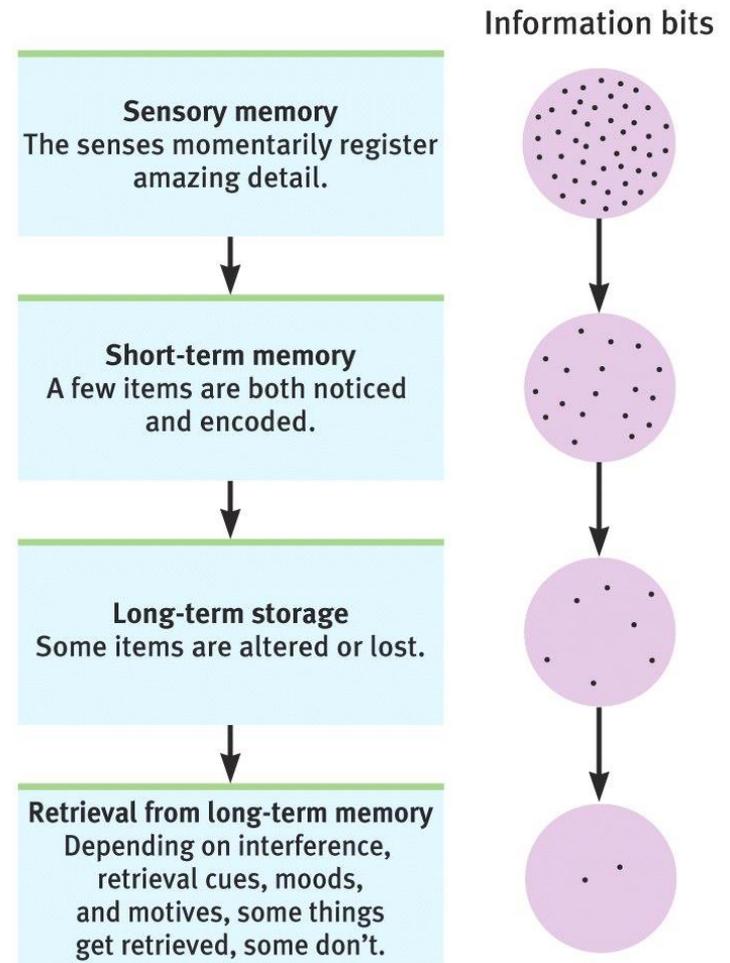
Can you identify the real U.S. penny?

FORGETTING



Why do we forget?

Forgetting can occur at any memory stage. We filter, alter, or lose much information during these stages.

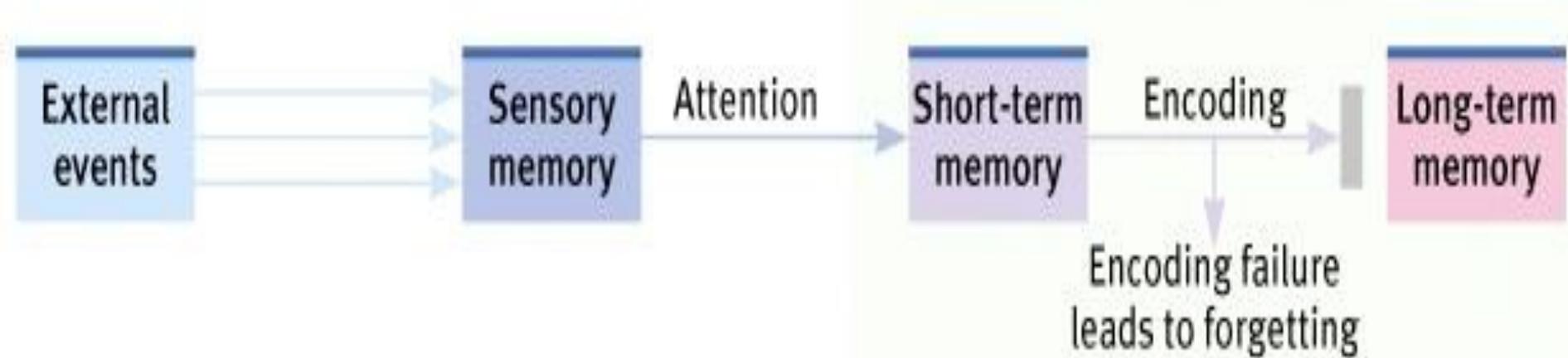


Why Do We Forget? Five Key Theories



- Encoding Failure
- Decay
- Retrieval Failure
- Interference
- Motivated Forgetting

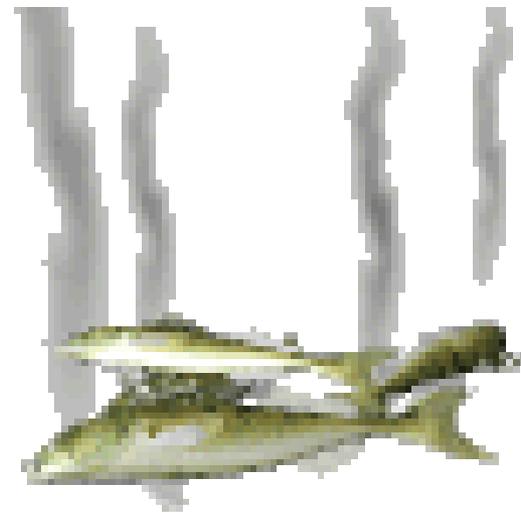
1. Encoding Failure



- We fail to encode the information.
- It never has a chance to enter our LTM.

2. Storage Decay (Transience)

- Even if we encode something well, we can forget it.
- Without rehearsal, we forget things over time.
- Ebbinghaus's forgetting curve.



Ebbinghaus's memory experiments showed that...

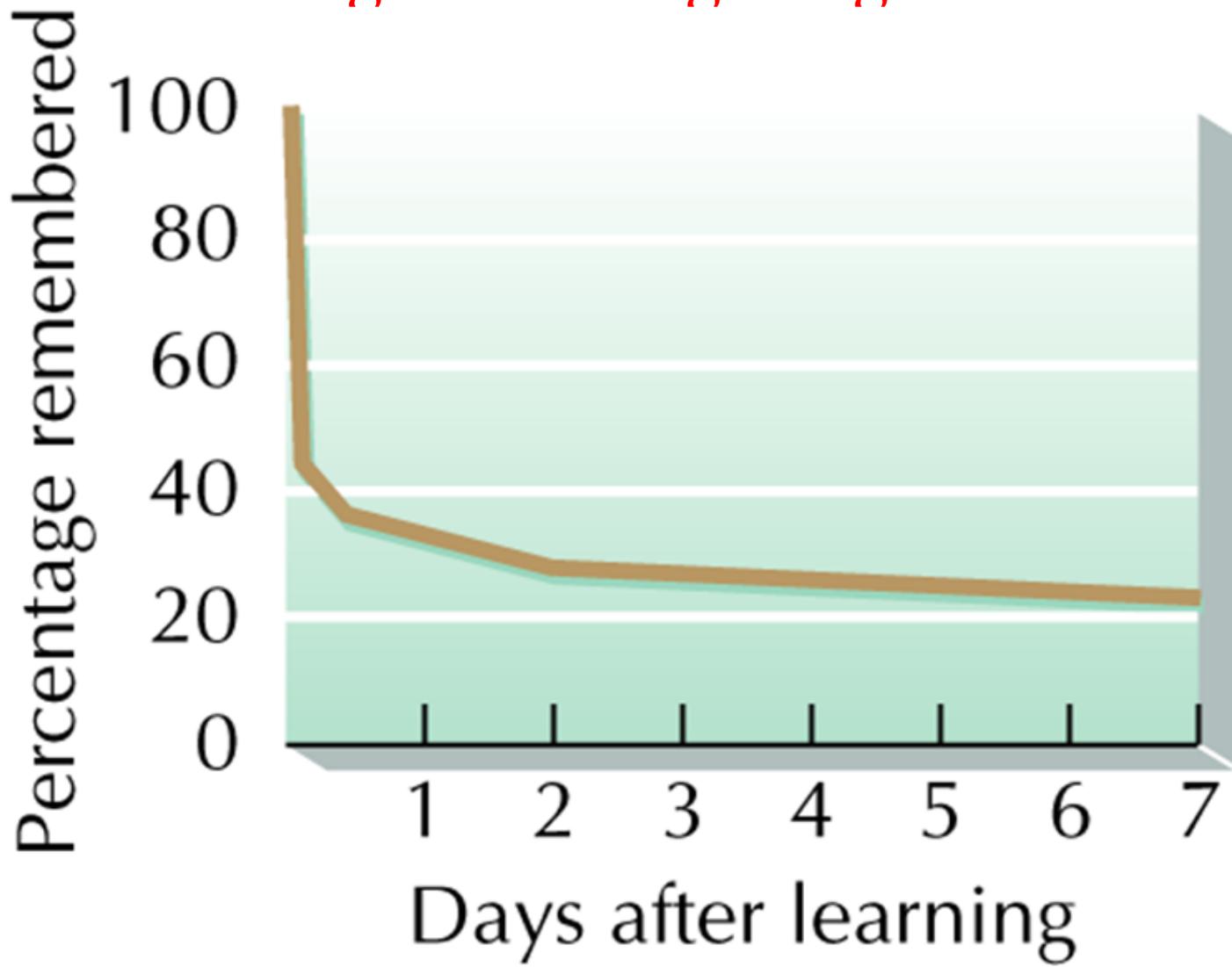
- Forgetting is most rapid within the first 9 hours.
- Material that is studied beyond mastery (over-learned) is remembered longer.
- Repeated learning sessions over a longer interval of time improves memory retention in any subject.
- Items toward the beginning and end of a series are most easily remembered.
- Meaningful things are remembered for about 10 times longer than random meaningless things.
- Items forgotten can be relearned faster than new ones learned for the first time.

In 1885 Hermann Ebbinghaus became the first psychologist to systematically study learning and memory.



Hermann Ebbinghaus

Ebbinghaus's Forgetting Curve



Nonsense Syllables

84. 100

1₂^{xx} dot chauf maud tivr rok zhen kok shül
löm chin jös noit sil mök häm leit

2₂ jäim nol feis lech chiup mis joch dom
deik laut kur bäl bim san jän gaut

3₂ tüch dük höf sheik ras hin chois man
jin much nik geist lush chois san gam

4₂ noif deun kos laf dauf zik saush jof
zheim paut nöm wen chaush shup buf zheil

5₂ par loit reis jöp wir non jush pek
müf jof mud tof dok sof löm har

6₂ hif zhus shant zhash tash löf nos küch
saush kün zhir xim bauf säm dal dut

7₂^{4/8} hoir gäs dön fosh söt sash köch leif
lak maun such laut goist nur choit zhan

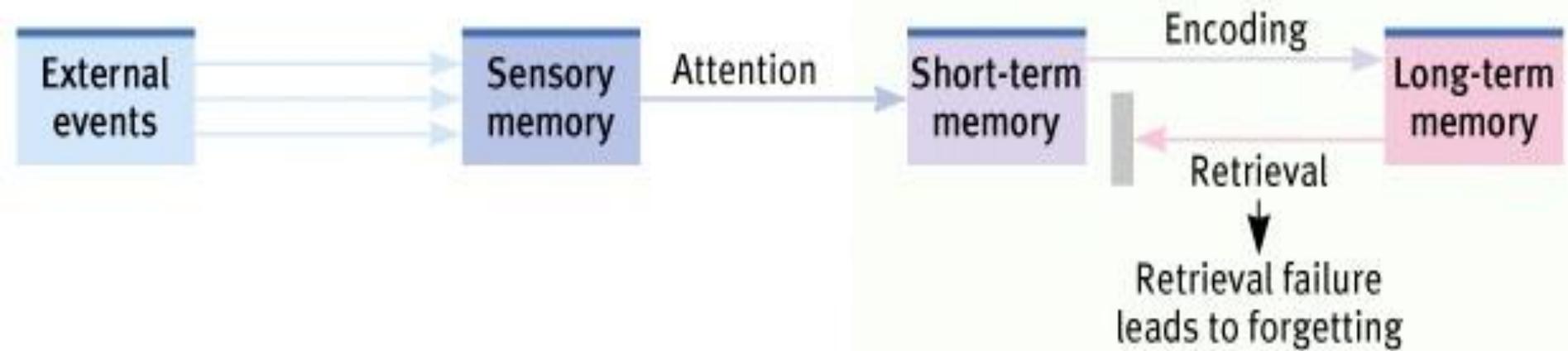
8₂ bit dup shäs nam zhest düi laut thal
zäf zech map shan shül seim mäz gün

9₂ neif shün daum shich not lich buf them
küm tich löm müs thäf wön lür chäm

E. B. Titchener wrote that Ebbinghaus's invention of the nonsense syllable was the greatest advance in memory research since the time of Aristotle.

3. Retrieval Failure

- The memory was encoded and stored, but sometimes you just cannot access the memory.



4. Interference

Proactive Interference

- The disruptive effect of prior learning on the recall of new information.



If you call your new girlfriend your old girlfriend's name.

4. Interference



Retroactive Interference

- The disruptive effect of new learning on the recall of old information.

When you finally remember this years locker combination, you forget last years.