

The Malleability Of Memory



PSYCH 1101

DAY 16

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Memory

How To Get Something Into Long Term Memory

- Rehearsal
 - serial position effect
- Mnemonic Strategies
 - Rhymes
 - Acronyms (e.g., Kings Play Chess on Fine Grain Sand)
 - Method of Loci (associating items with physical locations)
- Depth-of-Processing
 - Deep (semantic) processing leads to better memory than shallow processing

Context-Dependent Memory

Godden & Baddeley (1975)

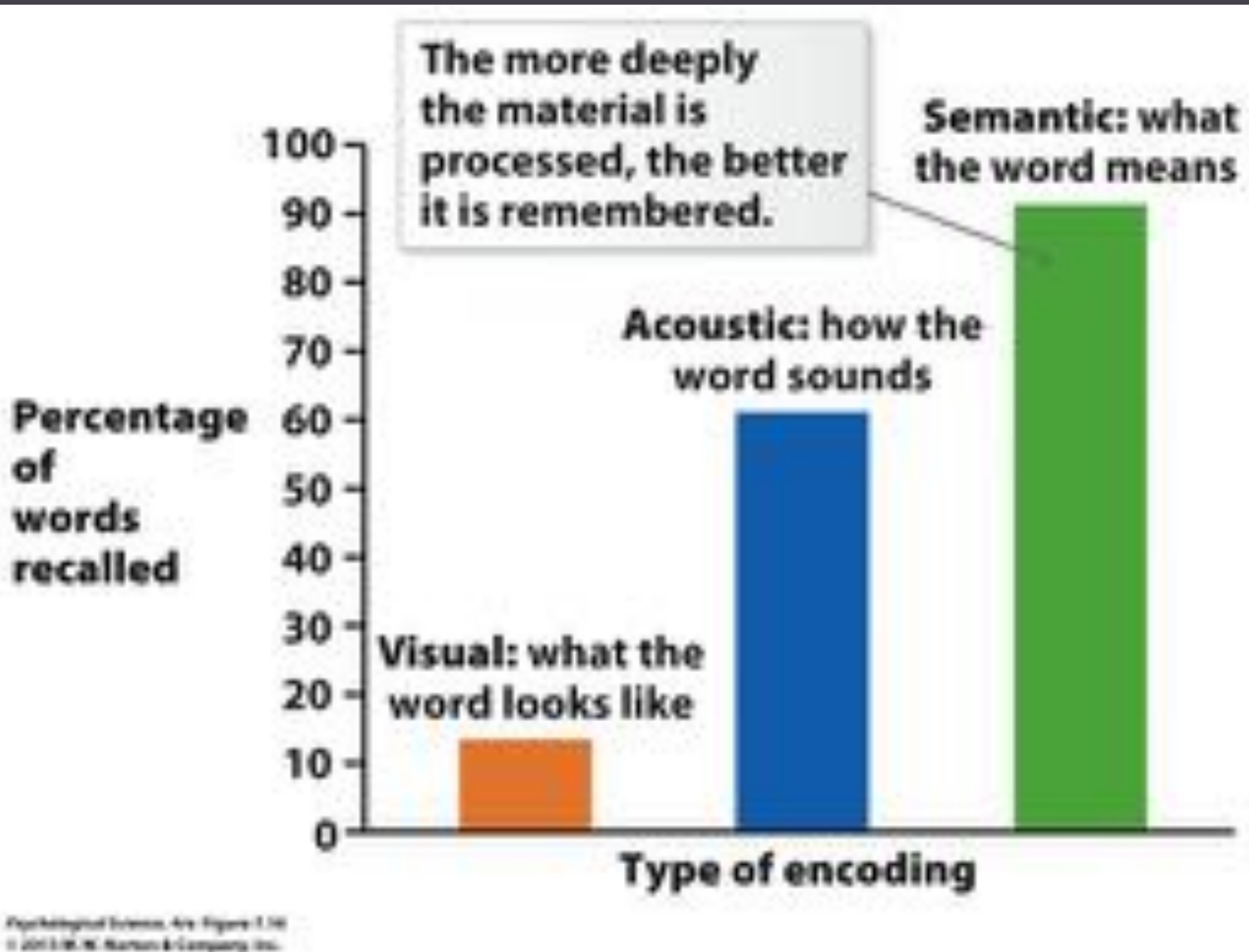
- Scuba divers given 38 unrelated words (heard all words twice, through their scuba gear).
- The words were given to them:
 - underwater (20 ft. below surface) vs on land
 - 24 hours later, they were then given a memory (recall) test
 - underwater or on land

Context Aids Memory

- Physical location
 - e.g., studying in same room as exam is taken
- Physiological Context
 - mood-dependent effects
 - state-dependent memory (e.g., learning/testing during alcohol intoxication)

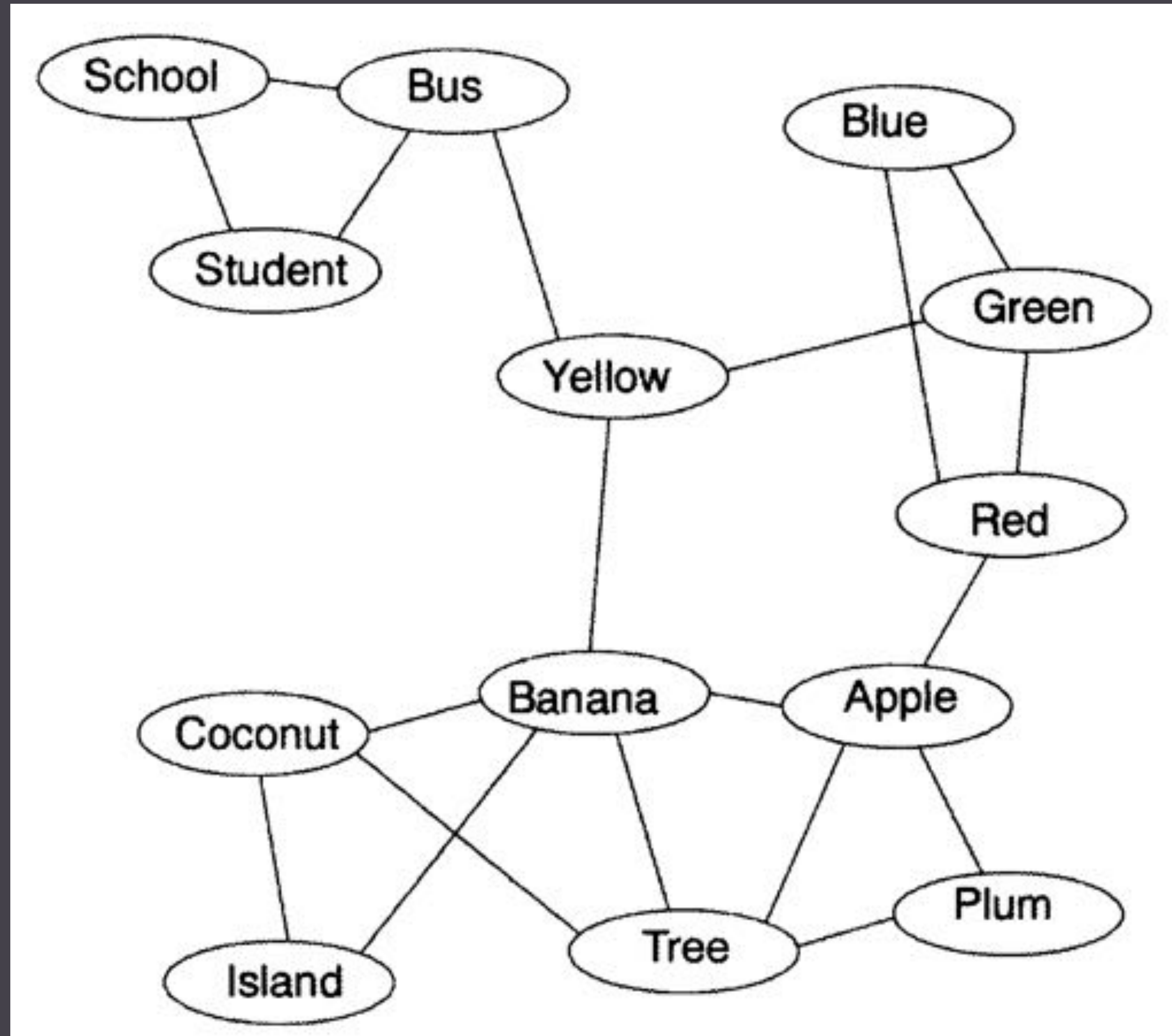
Participants Learn Better When Learning And Testing Context Matched





When Memories Can't Be Trusted

Mind As Networks Of Associated Concepts




- snooze
- rest
- tired
- dream
- awake
- slumber
- night
- doze
- eat
- bed
- comfort
- snore
- wake
- pillow

Deese-Roediger-Mcdermot Experimental Paradigm

- Were these words on the list?
 - doze
 - sound
 - sleep
 - truck

Memory Is Malleable

- **Loftus & Palmer (1974)**
 - Showed participants a videotape of a car accident and asked participants questions about their speed, but manipulated the *way* they were asked:
 - “How fast were the cars going when they **hit** each other?”
 - vs
 - “How fast were the cars going when they **smashed into** each other?”

A woman with short, wavy, light-colored hair and glasses is speaking. She is wearing a dark red jacket over a black top and a gold necklace. The background is a warm, textured wall with a vertical light beam on the left.

I study memory. I've studied memory for decades.

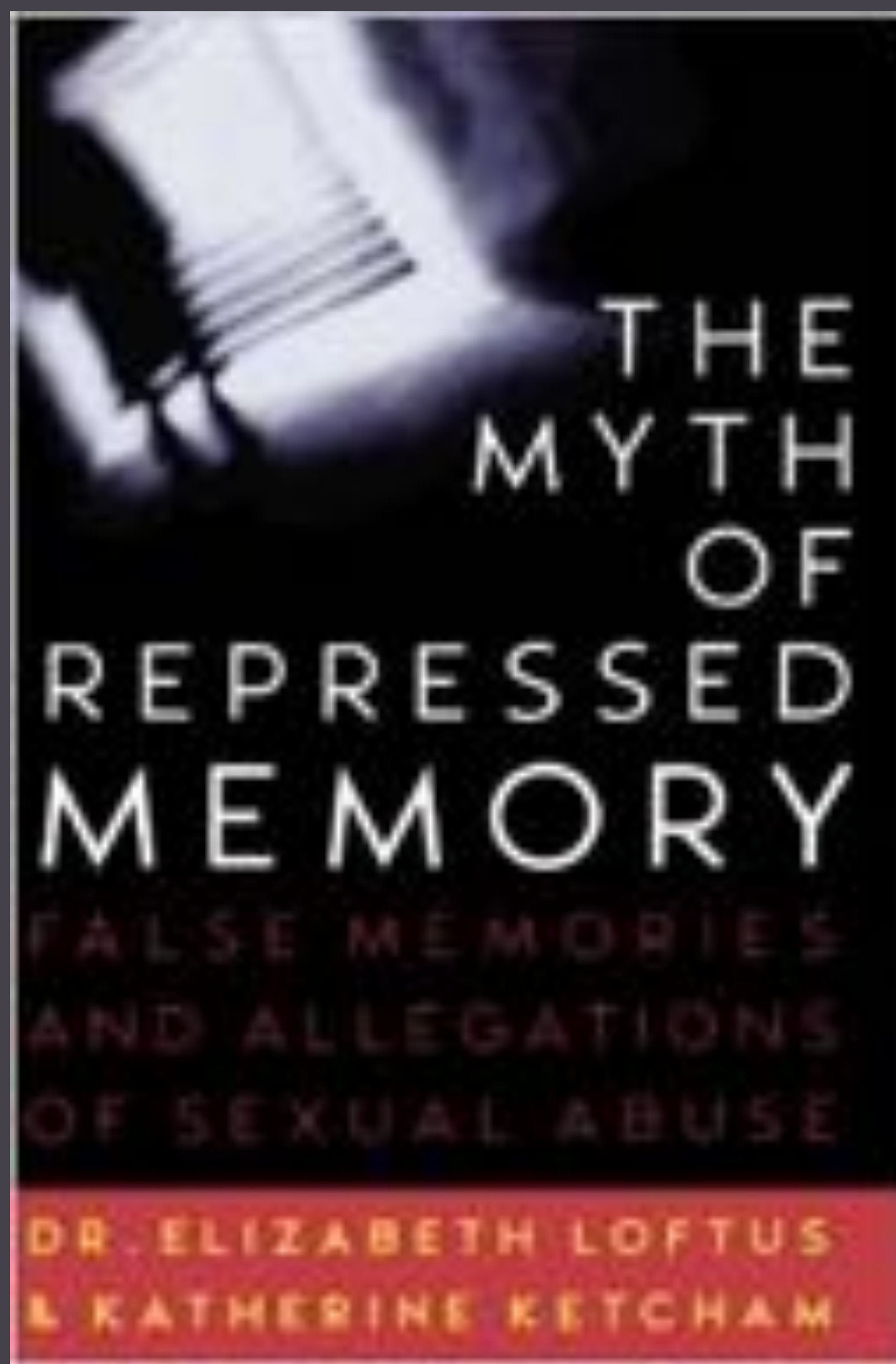
[HTTPS://WWW.TED.COM/TALKS/ELIZABETH_LOFTUS_THE_FICTION_OF_MEMORY?LANGUAGE=EN#T-262128](https://www.ted.com/talks/elizabeth_loftus_the_fiction_of_memory?language=en#t-262128)

WITNESS FOR THE DEFENSE



*The Accused, the Eyewitness,
and the Expert
Who Puts Memory on Trial*

*Dr. Elizabeth Loftus and
Katherine Ketcham*



THE MYTH OF REPPRESSED MEMORY

FALSE MEMORIES
AND ALLEGATIONS
OF SEXUAL ABUSE

DR. ELIZABETH LOFTUS
& KATHERINE KETCHAM

“Lost In The Mall” Paradigm



Sidebar About Attention: Weapon Focus



Aren't There "Special,"
Indelible Memories- Things You
Will Always Remember
Clearly?

William James (1890)

“An impression may be so *exciting emotionally* as to *leave a scar* upon cerebral tissues...” [emphasis added]



“Each of us will remember what happened that day and to whom it happened. We will remember the moment the news came, where we were, and what we were doing.”

—President G.W. Bush



More facts of nature: All forest animals, to this very day, remember exactly where they were and what they were doing when they heard that Bambi's mother had been shot.

“More Facts Of Nature: All Forest Animals, To This Very Day, Remember Exactly Where They Were And What They Were Doing When They Heard That Bambi’s Mother Had Been Shot.”

Flash-Bulb Memories

(Brown & Kulik, 1977)

- Asked individuals to report highly emotional events (80 participants)
- People reported having vivid, detailed memories of *surprising* and *important* events.
- They typically remember:
 - where they were
 - what was going on at the time
 - who told them the news
 - how others felt
 - how they felt
 - what happened next

Problem:

- The flashbulb memory study assumed that these memories were ACCURATE
- But the original Brown & Kulik study did not have a way to assess accuracy.