MIND BREW

Office of Student Success

A reflection on the sins of memory and our scumbag brains.

THE LEARNING SPECIALIST TEAM

I am sure most of you can relate to the following moment:

You're sitting there in a test and you recognize a key term. You can't remember what the actual definition is. However, you can visualize the exact lecture slide it is on and know exactly where the answer is.

While extremely frustrating, it is not entirely uncommon. Human memory is a fickle system. While we think it acts like a computer (where whatever information we encode will be exactly what we get whenever we want to retrieve that data) it is unfortunately much more susceptible to error than we might realize.

Daniel Schacter, a cognitive psychologist, has researched memory phenomena for decades to produce "The Seven Sins of Memory". In this newsletter, we will be discussing the most prevalent sins out of the seven that often plague students during medical school and how you can atone for them.

Current Cognitive Research in Media

The Seven Sins of Memory (APA's Speaking of Psychology Podcast)

How Memory Can Be Manipulated (APA's Speaking of Psychology)

Sin #1 : Transience

The observation that memory performance typically declines over time (Schacter, 2021). Bottom line, we forget what we do not practice. Time-spaced repetition of the material is important for buffering forgetting. The more we actively recall and reinforce the material, the less likely we are to forget it in the moment.

Sin #2: Absent-mindedness

In the absence of retrieval cues that are not available at the moment of action and attention is not focused on the task goal, the more likely we are to forget (Vortac et al. ,1995). It has happened to all of us, we forget about an appointment we made, we forgot to pick up one of the things we needed from the grocery store, etc. When we rely on our working memories to remind us of important tasks we often fail. Pre-planning and the use of external systems, such as calendar apps, make it more likely that you will execute tasks such as review on time. It is important to define the objective and end state of each task so it is completed to your standard.

Sin #3: Blocking

Retrieval inhibition can take many forms, to include tip-of-the tongue states and retrieval induced forgetting. Reflecting on the earlier example where you visualize exactly where that page is at is retrieval induced forgetting. You remembered the retrieval cue, but not the actual content. It is almost there, but you just can't put your finger on it. One of the best methods for combatting blocking is to simply move on and then return to the question later. Studies have shown that people experiencing tip of the tongue phenomena who kept trying to retrieve the information were less likely than those who took a break.

Sin #4: Misattribution

Misattribution can take various forms including memory confusion, false recall, and false recognition. False recall and recognition activate different areas in the brain related to perceptual processing than correctly remembered information. While it is difficult to affect perceptual processing, we can mitigate misattribution through how we meaningfully encode the information. For example, it is more likely that we will falsely recall lists like anterior muscles in the leg if they remain in list form. However, if we tie those types of lists to pictures or visual representations, we are less likely to falsely recall that information.

For more learning strategies and tips, please email your assigned learning specialist.

References
Schacter, D. L. (2021). The seven sins of memory: an update. Memory, 1-6.
Vortac, O. U., Edwards, M. B., & Manning, C. A. (1995). Functions of external cues in prospective memory. Memory, 3(2), 201-219.

"I learn something new everyday.

And forget five other things forever."

ANONYMOUS

Don't forget!

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