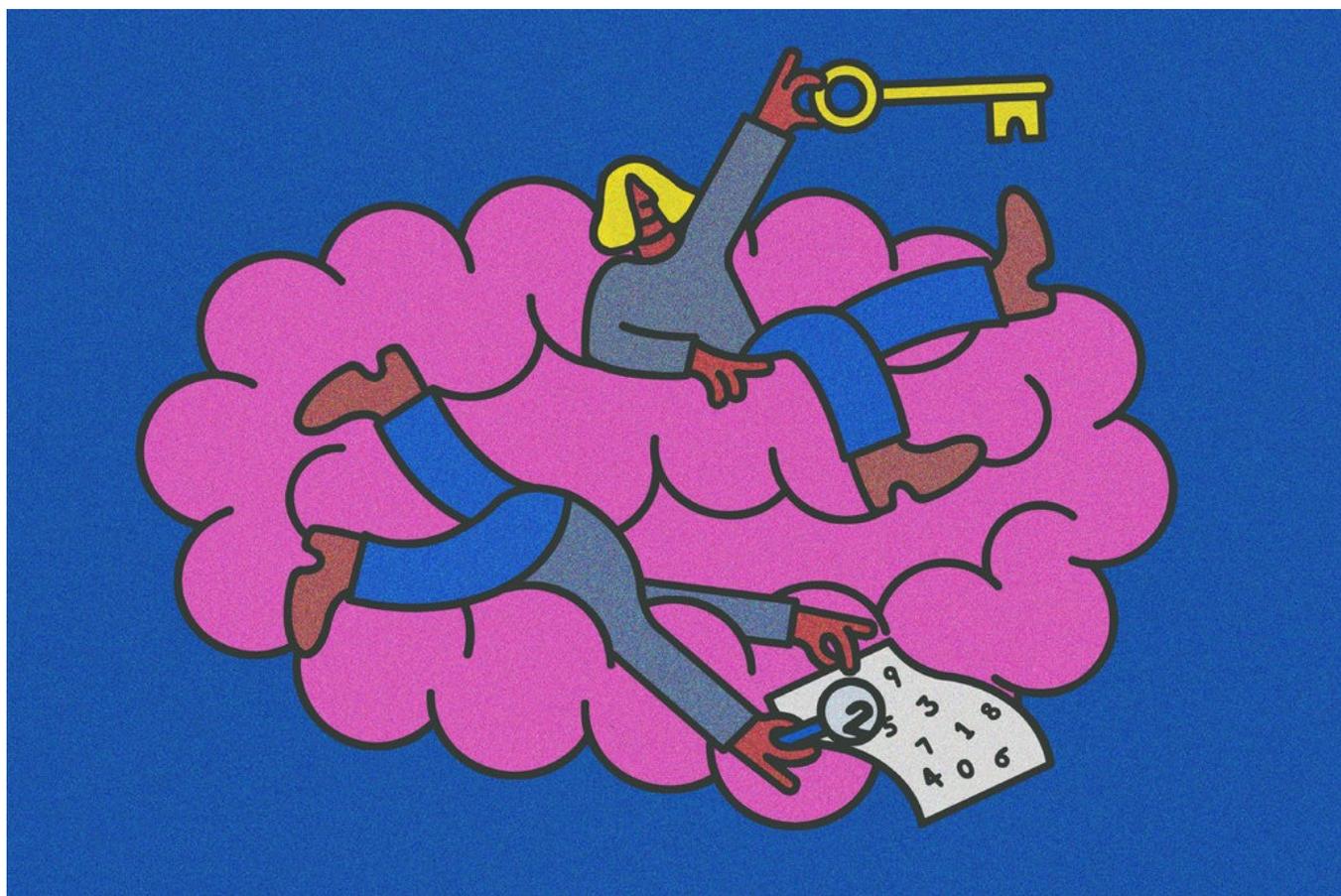


Train Your Brain Like a Memory Champion

If you have trouble remembering names, faces or phone numbers, these tips from memory champions and neuroscientists can help.

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You slide the key into the door and hear a clunk as the tumblers engage. You rotate the key, twist the doorknob and walk inside. The house is familiar, but the contents foreign. At your left, there's a map of Minnesota, dangling precariously from the wall. You're certain it wasn't there this morning. Below it, you find a plush M&M candy. To the right, a dog, a shiba inu you've never seen before. In its mouth, a pair of your expensive

socks.

And then it comes to you, 323-3607, a phone number.

If none of this makes sense, stick with us; by the end of this piece you'll be using the same techniques to memorize just about anything you've ever wanted to remember.

The “memory athlete” Munkhshur Narmandakh once employed a similar combination of mnemonics to commit more than 6,000 binary digits to memory in just 30 minutes. Alex Mullen, a three-time World Memory Champion, used them to memorize the order of a deck of cards in just 15 seconds, a record at the time. It was later broken by Shijir-Erdene Bat-Enkh, who did it in 12.

We're going to aim lower, applying these strategies to real-world scenarios, like remembering the things we often forget at dinner parties or work-related mixers.

The Power of Mnemonics

At the start of this piece, we employed two mnemonic strategies to remember the seven digits of a phone number. The first, called the “[Major System](#),” was developed in 1648 by historian Johann Winkelmann.

In his book “Moonwalking With Einstein,” the author Joshua Foer described this system as a simple cipher that transforms numbers to letters or phonetic sounds. From there we can craft words and, ultimately, images. Some will, no doubt, be crude or enigmatic. Others may contain misspellings and factual errors. It doesn't matter. This system is designed to create rich imagery, not accurate representations.

0 S	1 T or D	2 N	3 M	4 R
5 L	6 Sh or Ch	7 K or G	8 F or V	9 P or B

The number 19, for example, is TP, TB, DP, or DB. From those two letter combinations, there are a host of visuals we can come up with to match words like **toilet paper**, **tuberculosis**, **Dr Pepper**, or **dubstep**. Our visuals followed the same logic. MN/**Minnesota** (32), MM/**M&M** (33), SH/**shiba inu** (6), SK/**socks** (07).

One could argue that, on its own, the Major System is as complicated as just remembering the seven digit phone number, or perhaps more than. That's why you'll often see memory athletes combine the system with another mnemonic, like the "[method of loci](#)," or MoL.

The method was first developed in ancient Greece, but popularized in "The Art of Memory," by Frances A. Yates, in 1966. Also called a "memory palace," MoL involves placing items throughout a familiar place. In this case, your home. Mr. Foer in his book suggested walking through the front door and then letting your eyes gaze from left to right, top to bottom. In our example, we started with a map, placed a plush figure below it, and then a dog with a pair of socks in its mouth.

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Seven digits, though, is child's play. Gary Shang once used MoL to memorize pi to 65,536 digits.

How Mnemonics Work

In an evolutionary sense, our memory hasn't quite become a powerhouse for nonvisual information. Early hominids had little need to remember dates or phone numbers. They did, however, require an acute sense of what times of the year were best to plant crops, what flora were edible, and when they might need to pack up and move to keep pace with nomadic food sources.

“From an evolutionary prioritization perspective, I think most of this comes down to gating mechanisms we have in place for denoting and ‘tagging’ incoming stimuli as important for the continuation of our existence,” Nicco Reggente, Ph.D., a cognitive neuroscientist at the [Tiny Blue Dot Foundation](#), said.

Even today, sensory representations drive memory in ways mere memorization can't touch. Dr. Reggente explained that this is best seen in the hippocampus, a part of the brain that originally evolved to support movement. “In order for this movement to be purposeful, it must be guided via prediction,” he said. “It is the same region that is now, in our modern age, repurposed for non-spatial (non-movement based) memories as well.”

It's why visual mnemonics, like MoL, are so effective; we're piggybacking on a cognitive system that was fine-tuned over millions of years to work best with visual and spatial representation. “Visualization is typically beneficial due to its translation of the abstract form of the object (or concept) into a spatial medium,” Dr. Reggente said.

How to Remember Names

Names are actually best remembered by focusing on the text as it's spoken and then using it immediately. "The most useful trick isn't a trick at all," Mr. Mullen, the memory champion, noted. "It's focus."

As mnemonics go, all the experts we spoke with suggested the same technique for remembering names. It involves singling out a particular trait of the person you're speaking with. For Mr. Mullen, in a made-up example, that was hair color. The trait most noticeable about "Karen" was her orange hair, about the same shade as a carrot. He'd then imagine Karen with carrots for hair, perhaps munching on them as they spoke.

In the psychology world, there's a strange example of how these tricks work, called the "Baker/baker paradox." After showing subjects the same photograph of a man's face, the researchers tell half the participants his surname, Baker, and the other half his occupation, a baker. Days later, the subjects were more likely to remember the man's occupation than his name. This plays to the sensory nature of memory. Upon hearing the man was a baker, the brain immediately springs into action, creating or recalling vast neural networks of what we've associated with the title: fresh bread, a white hat and apron, or perhaps someone standing in front of a patisserie, greeting children with delicious sweets.

When incomplete, this sensation is also responsible for the tip of your tongue feeling where you can't quite recall a memory. According to Mr. Foer: "It's likely because we're accessing only part of the neural network that 'contains' the idea, but not all of it."

How to Remember Numbers

For competitors, the Major System, often in conjunction with the memory palace, is the most common way to remember hundreds, or even thousands, of numbers.

In our example, a phone number, it may have been overkill. A more useful trick is a simple one, called chunking, you've been using for years without even realizing.

Phone numbers, for example, come pre-chunked. We don't write, or recite, phone numbers as a single digit. 3419108550 is more manageable when written, or recited, as 341-910-8550. Credit card numbers are also chunked, as is your Social Security number.

Mr. Foer detailed an acquaintance that had never formally been taught to chunk information, but used the technique to remember numbers by associating them with his hobby, running. "For example, 3,492 was turned into '3 minutes and 49 point 2 seconds, [a] near world-record mile time.'" For most of us, this is probably no easier than remembering the number itself. But for a runner, it's a different story.

Or, it's possible to use the Major System to remember smaller number combinations, even without placing visual representations inside a memory palace, as we did above. The phone number 341-910-8550, for example, becomes "MRT PTS FLLS" after consulting the chart. For me, the oddest, most memorable phrase, as Mr. Foer suggested using, is "Mr. T pities fools." Granted, it's misspelled, but the image is highly memorable.

In training like a memory champion, it's really the visual that's most important. Each technique we covered capitalizes on the ability to visualize memories rather than simply attempting to recall them. This, as our team of experts notes, is an exercise in futility.

There's nothing, physiologically speaking, separating memory athletes from people who forget where their keys are or can't remember what they had for breakfast this morning. The difference is in the training methods, and the time spent in mastering them.

"Overall, I'd say you definitely don't need to be a savant to have a great

memory,” Mr. Mullen said. “If you’re sincerely engaged with a few tricks up your sleeve, you might surprise yourself.”

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