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On Language

# Mnemonics

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This might well be called the year of memory. Already, I'm able to click on the icon that marks the Find function on my little pocket Treo. Can't think of a friend's last name? I enter "Myrna," and in a second the screen invites me to choose Davis, Greenberg or Lewis. Can't remember the name of a book by Jonathan Spence? This time, it's Google to the rescue: three clicks gives the answer: "The Memory Palace of Matteo Ricci." And that's just the start.

Apple has just released Tiger, its latest operating system, which includes Spotlight. Just as Google searches the World Wide Web, this new feature uses a word or phrase to find a document inside your computer. Microsoft is at work on a new operating system, Longhorn, with similar capability. Such powerful assists to memory raise a question never before conceivable: Why struggle to remember anything?

For eons, from the beginning of language, people had no choice but to remember. When to plant, how to hunt, what was poison: these were matters of life and death. Knowledge about them had to be passed down, by word of mouth, as did great narratives like the "Iliad" and the "Odyssey." This dependence on oral tradition put a premium on mnemonics, devices like rhyme, rhythm, acronyms and other systematic ways to help sages and storytellers remember.

It took millennia before writing provided a secure way to preserve the oral tradition, and even then, mnemonics thrived. From classical times forward, orators have remembered the major points of speeches by using the "method of loci." One visualizes walking through the rooms of a "memory palace" and associates the next point to be addressed with each successive room or tapestry. This method is probably why we now use the expression "in the first place."

Then and now, preschoolers have learned the alphabet with rhyming song. Middle schoolers remember the order of the planets with the mnemonic sentence, "Mother very thoughtfully made a jelly sandwich under no protest" (where Earth is "t" for Terra and "a" denotes the asteroid belt). Male medical students once identified the eight wrist bones (navicular, lunate, triquetrum, pisiform, multangular greater, multangular lesser, capitate, hamate) by snickering: "Never lower Tillie's pants. Mother might come home."

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Enter electronic technology. A three-pound laptop can now store and retrieve a ton of data. People who once remembered the phone numbers of a dozen friends now just push a programmed cellphone button. Why bother remembering the clever poem that tells the value of pi to 21 places (3.141592653589793238462) when you can look it up online and get a virtual googol of places? Why is it necessary in this information age to remember most things, except maybe your user name and password(s)?

Yet mnemonics are surviving, even flourishing in the online world. [Flocabulary.com](http://Flocabulary.com) is only one example of how Web sites have latched onto mnemonics as ways to teach SAT words to high-school students or definitions of crimes to law students. Mnemonics also endure for a host of other reasons. Electronic-search marvels are of no use to billions in the third world without online access. They still exchange mnemonic sayings, adages and proverbs. "Many proverbs are, in fact, mnemonics (or perhaps I should say many mnemonics are, in fact, proverbs)," wrote Avise Nissen, a comparative literature scholar in Washington, in the *Midwest Quarterly* in 1997. "Thus we remind ourselves of folk wisdom concerning the weather by reciting, 'Red sky at morning, sailor take warning; red sky at night, sailor's delight.'"

Mnemonics remain useful, meanwhile, to many others who have access to computers but who need to know right now. Obstetricians, for instance, use the Apgar test for newborns -- it's an acronym based on the name of its inventor, Dr. Virginia Apgar: activity, pulse, grimace, appearance and respiration. Other mental systems remain useful aids for remembering everyday information: "Thirty days hath September. . . ." and Homes, for the Great Lakes (Huron, Ontario, Michigan, Erie and Superior) and "Every good boy does fine" for the lines of the treble clef.

Probably the most useful mnemonics are those that people devise for themselves. My son John keeps the order of streets in SoHo straight by declaring that "People should be good" -- for Prince, Spring, Broome and Grand. This column was prompted by the mnemonic given here last summer for remembering the cabinet departments in order of creation. ("See the dog jump in a circle. Leave her house to entertain educated veterans' homes.") That prompted Henry E. Nass, a New York reader, to offer a wealth of information and several of his own clever mnemonics. "Memorization," he says, "was and is a demonstration of culture or intelligence or sophistication."

Perhaps the most practical reason for mnemonics to survive is the universal desire to remember names. Experts give the same initial advice: when meeting someone, pay attention. Most people do not forget a name; they never really learn it. Danielle Lapp, author of "Don't Forget" and a researcher on memory at Stanford, recommends, first, picking out a facial feature, forcing you to focus. In her case, you might choose her eyes. Second, on hearing the name, ask yourself if it means anything. Third, visualize name

and face together; the more ridiculous -- eyes in her lap -- the more likely you are to remember both.

There's an even better reason to believe that mnemonics will endure. "They are more than just tricks," says Terry Sejnowski, a computational neuroscientist at the Salk Institute for Biological Studies in La Jolla, Calif. The brain, unlike the computer, does not store memories in one place; it distributes them seamlessly. That helps explain the power of mnemonics, based on multiple senses -- visual images, sounds, rhythms and smells. "They are formed as memory extenders, yes, but they are also telling us about how a very deep part of the brain draws subconsciously on past experience."

We seem destined, in short, to remember old mnemonics and to go on making new ones. With each successive wave of technology, whether writing on vellum or surfing the Web, our memory systems will spring forward, fall back -- and endure. As the biologist Rebecca Rupp wrote in her 1998 book, "Committed to Memory": We are what we remember.

*Jack Rosenthal is president of The New York Times Company Foundation. He remembers pinch-hitting for 24 consecutive years for William Safire, who is on vacation.*