

# Why Do We Forget What We're Doing the Minute We Enter a Room?

Mental Floss  
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## Why Do We Forget What We're Doing the Minute We Enter a Room?

Left your keys on the kitchen counter again? No problem. Just go and get them. Walk through the house, into the kitchen, and—what was it you needed to do again? Why are you in here? In less than 30 seconds, you've managed to forget the entire purpose of your errand. But don't worry. It's not just you, and you're not losing your marbles. It's called the Doorway Effect, and it's actually a sign that your brain is in fine working order.

Scientists used to believe that memory was like a filing cabinet. You have an experience, and it gets its own little file in your brain. Then, later, you can go back and open the file, which is unchanged and where it should be. It's a nice, tidy image—but it's wrong. Your brain is much more complicated and sophisticated than that. It's more like a super-high-powered computer, with dozens of tasks and applications running at once.

A 2011 study found that the Doorway Effect is the result of several of these brain programs running simultaneously. Researchers taught 55 college students to play a computer game in which they moved through a virtual building, collecting and carrying objects from room to room. Every so often as the participants traversed the space, a picture of an object popped up on the screen. If the object shown was the one they were carrying or the one they had just put down, the participants clicked "Yes." Sometimes these pictures appeared after the participant had walked into a room; other times they appeared while the participant was still in the middle of a room. The researchers then built a real-world version of the environment and ran the experiment again, using a box to hide the objects people were carrying so they couldn't double-check.

The results of both trials were the same: The simple act of walking through a doorway made people forget what they were doing. And it wasn't a matter of distance, either. The researchers asked the question ("Is this what you're carrying?") after people had walked a certain distance within a room, and a certain distance between rooms. Within a room, their memories remained mostly intact. But crossing a threshold was like shaking a mental Etch-a-Sketch.

The researchers concluded that their subjects' brains perceived doorways as a kind of cut-off point. The memories and movement that carried the students through one context literally hit a wall. On the other side of that wall was new context, and a fresh landscape for memory. The participants' mental computers were combining the tasks of spatial awareness, movement, and memory. But each task requires attention, and you can't pay attention to everything at once.

Is there a way to avoid the Doorway Effect? Probably, although science hasn't found it yet. If you've got a trick that works, let us know in the comments.

# Does Being Stressed Out Make You Forgetful?

Stress can be memory's best friend. But when you forget where you put the car keys, stress can also make you feel stupid. One expert, Rajita Sinha, a professor of psychiatry and neurobiology at Yale University, sorts through the effects of stress on memory, and its troubling relationship to dementia.

—Heidi Mitchell

## The Basics

People use the term "stress" loosely. Dr. Sinha defines it as the process by which we react to stimuli that are threatening, challenging or overwhelming.

"It is a complex system of cortisol, adrenaline, peptides and other hormones and chemicals that help us respond, adapt and bring our bodies back to a stress-free baseline," says Dr. Sinha, who is director of the Yale Stress Center.

Stress works on a spectrum, the psychiatrist says. At one end is controllable stress, where if you take the correct action you can regain control.

"Imagine you notice the fridge is almost empty, but if you hurry you can get to the store before a forecast snowstorm hits," she says.

At the other end is uncontrollable stress. Losing your home or ending a significant relationship would fit in this category, she says. The two types often overlap.

## Leaving its Mark

The brain grasps an uncontrollable threat very quickly and can retrieve relevant information immediately when presented with the same acute stress again, Dr. Sinha says. When you are out alone on a street at night, your stress response might help keep you alert the next time you are alone and feel in danger. "That experience sharpens the mind and encodes an impression," she says.

Controllable stresses, too, leave an imprint, such as not having enough time to study for an exam. "Your mind will remember that experience, and you will allow for more time to study before the next test," Dr. Sinha says.

## The Memory Link

Yet studies looking at multiple simultaneous stresses, either controllable or uncontrollable, show they lead to poor memory retrieval "because the brain's capacity to think is fractured," says Dr.



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A To Do list can help people avoid multitasking, manage stress and forgetfulness.

Sinha.

Generally someone who is stressed will be able to focus on the task at hand but might forget things that aren't specifically related. A person running late for a meeting may forget where he put his keys. A homeowner threatened with foreclosure might not recall his own

phone number. "What makes us human is to think creatively and emotionally, to allow us to be rational and wise," Dr. Sinha says. "But if you have multiple things going on, that is thrown out the window, and you are emotionally overwhelmed."

Recent studies have shown the risk for

dementia and other memory-related illnesses rises significantly the more people encounter uncontrollable stress. Dr. Sinha says studies using brain scans show that loss of a significant other or witnessing violence does take a toll. "Research has shown that whole branches of brain cells can shrink and start to disappear," she says. "That doesn't mean that if you get divorced, you'll get dementia. But the risks are there."

## Bouncing Back

The good news is the brain is dynamic, and neuron damage can be reversed. Dr. Sinha says brain research has documented so-called neurogenesis, although science hasn't pinpointed what sorts of stress-related memory loss can be reversed, she says.

Dr. Sinha advises patients to set everyday stress-management goals: Get enough sleep, stay hydrated, eat small and healthy meals regularly to avoid glucose drops, and exercise to maintain high energy. Be aware of stress signs. "If you continue to notice forgetfulness when faced with common stresses, talk to your doctor," Dr. Sinha says.

Avoid multitasking whenever possible, she adds. "If you do 10 different things at once, you're only using one-tenth of your brain for each task, which makes it hard to perform at your peak level," Dr. Sinha says. "That can increase stress levels." The result: Forgetting where those darn keys are.

Email questions to [Burning@wsj.com](mailto:Burning@wsj.com).