

Train Your Brain to Excel Under Pressure

PREPPING FOR STRESS CAN ENHANCE YOUR RESPONSE

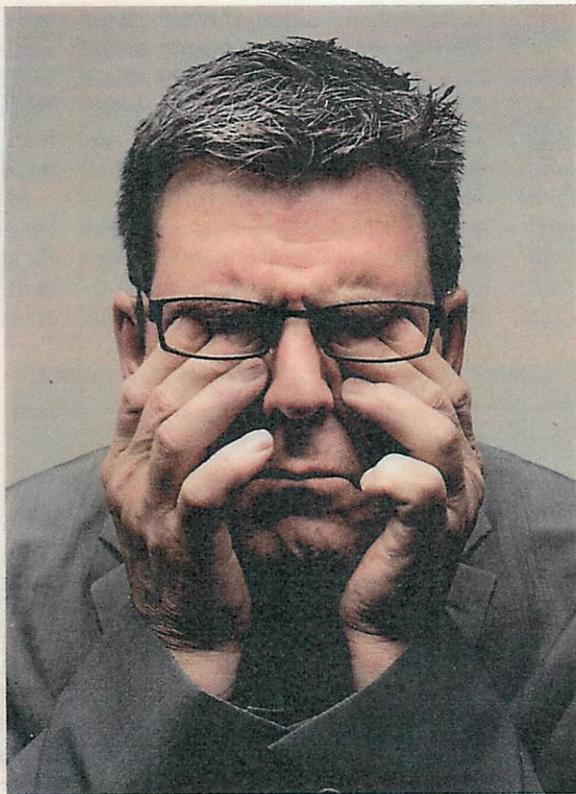
By Megan Johnson

29 During an Arizona gubernatorial debate in September, incumbent Jan Brewer lost her train of thought during her opening statement. The video of Brewer struggling to recover quickly went viral. "It certainly was the longest 16 seconds of my life," she said afterward.

Most people have experienced brain freeze at some point, whether speaking before an audience, taking a test, or confronting a deadline. University of Chicago psychology professor Sian Beilock, an expert in human performance, saw Brewer's gaffe as a common malfunction of the prefrontal cortex, an area of the brain that allows people to block out distractions and focus on a problem when under pressure. Beilock cites two reasons people falter in tense situations and, in her new book *Choke: What the Secrets of the Brain Reveal About Getting It Right When You Have To*, suggests some solutions.

First, pressure saps working memory, the brainpower used to solve problems. In a 2005 study Beilock conducted, undergraduates who performed among the worst on a timed math exercise were found to have also excelled on the practice test. The same mental resources that should have offered them an advantage, Beilock reasons, were instead shunted into "worrying about the situation and its consequences." In other words, some people freeze because their brain is temporarily unable to organize its resources to retrieve information from their memories.

The second cause of brain cramp



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is overthinking what should be a rehearsed response or action. Even top NBA players freeze when they find themselves having to make a critical free throw in a close game. At times like this, the brain typically calls on a kind of autopilot that guides automatic behavior. Though these athletes may have practiced the same shot thousands of times, they begin to think about the magnitude of the moment; instead of relying on the autopilot, they switch it off. The player's smoothly oiled technique breaks down, and he misses.

Psychologists say preparation is key to preventing stress from blocking the ability to solve problems. When US Airways Flight 1549 was disabled by birds after

taking off from New York's LaGuardia Airport, Captain Chesley Sullenberger, a pilot with 19,000-plus hours of flying time, decided in less than 2½ minutes to land in the Hudson River. He did this so skillfully that all 155 passengers and crew members survived. Experts noted how Sullenberger's many years of experience had equipped him to respond calmly and solve the problem effectively under extreme pressure.

A little practice. "Research has shown that you don't have to practice under as much stress as you're going to actually feel," Beilock says. To rehearse for a high-pressure situation, people simply need to give themselves a modest dose of whatever they expect to experience. For example, running through a presentation in front of a camera or a few colleagues can prepare you for an audience of hundreds. Arthur Markman, a professor of psychology and marketing at the University of Texas-Austin, describes such practice as "a vaccine against the bigger pressure situations later."

Certain relaxation techniques can also help calm jittery nerves. A 2007 study by researchers at the University of Wisconsin-Madison found that people who

meditate show increased activity in their prefrontal cortex and an improved ability to stay focused on a particular task. A number of companies, such as Tranquil Options of Bethesda, Md., teach workers mindfulness meditation. Tranquil director Laraine Barclay, who has trained employees at Lockheed Martin and the Justice Department, says that when you find your mind racing under pressure, it's helpful to pause to take stock of what's happening around you and breathe. Beilock likens the technique to "rebooting your computer when it jams." By forcing yourself to stop for a moment and reset, you allow your brain to reorganize itself and get back to solving problems. ●