

Why do some people 'choke' under pressure?

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In college, Sian Beilock had the kind of roommate that drives diligent students batty.

Abby spent more time at the beach than in the library. She daydreamed through class. She excelled at exams. She received a near-perfect score on the LSAT.

Beilock couldn't turn in the same kind of amazing performance under pressure. She became hooked on figuring out why people sometimes fail to perform at their best when the stakes are highest.

The result was PhDs in kinesiology and psychology and a book released this week called *Choke, What the Secrets of the Brain Reveal About Getting it Right When You Have to*.

Why did Michelle Kwan, favoured to win the gold in the 2002 Olympics, fall on a triple jump, leaving the gold to Sarah Hughes? Why did Greg Norman lose his lead and the Masters to Nick Faldo in 1996?

The one-word answer is: worry.

Working memory is a mental notepad in the front of your brain, providing temporary storage for information about the tasks at hand. It allows you to do things like map a route in your mind while driving.

It's a factor of intelligence, but how well it works depends on factors that can level the playing field between the smart and not-so-smart, Beilock has found.

Worry scribbles all over the notepad, taking up valuable space and making it harder to access the information you need to perform. Stress also impairs the brain's ability to work as a network, firing information from one area to the other.

If you're worrying about a poor outcome, you may be imagining it in your mind — you see yourself tripping, or dropping the ball, or drawing a blank on the test. That alone can make you more likely to fail.

Ironically, some studies have shown that people with higher working-memory are not as good at managing worry as people with lower working-memory, says Beilock.

Their high expectations generate more stress.

"Although you might think that a 'no-excuses' policy is always best, if you are able to take some of the pressure off yourself during an important test by reinterpreting the situation as something less stressful, less diagnostic of your ability, or less 'do-or-die,' you may be able to turn a potentially poor performance into a good one," Beilock writes.

Meditation is a proven tool in managing the worrying that interferes with performance, says Beilock. She cites Tiger Woods and Michael Jordan, renowned for their mental toughness in sport, as proponents of meditation.

She also recommends spending 10 minutes writing out your worries before a test, performance or presentation. Putting them to paper removes the worries from active status, freeing your brain up to concentrate on the matter at hand.

Studies have also shown that how you interpret the signals your body sends during a performance — increased heart rate, adrenalin and clammy hands for example — can affect how you do.

People who regard the signals as an asset that can enhance performance are likely to perform better than people who regard the signals with dread.

And then of course, there's practice. Beilock recommends practising under stress to improve performance.

It worked for Autumn Mills, 22, a pitcher on the Team Ontario baseball team.

She says she was mentally and physically ill-prepared for a game in Halifax earlier in her career. Her team won anyway, but that didn't stop her from being disappointed with herself.

She threw herself into training. Being more physically fit made her more confident. And the more she competed, the better she got at competing.

"If you're confident on the pitching mound, and you look intimidating, it's difficult for someone to compete against you," says Mills.

Team Canada just returned from Venezuela. Her team didn't win, but she pitched 11 innings with an ERA of .075, less than one run an inning, the second-lowest in the



KEVORK DJANSEZIAN/CP file photo

Canada's Perdita Felicien lays on the track after tripping over the first hurdle during the 100-meter hurdles final at the Olympic Stadium during the 2004 Olympic Games in Athens.

tournament.

Looking back on her poor performance in Halifax, she says it helped more than it hurt.

"It showed me where I needed to improve things. I think it contributed a lot to making me a better athlete."