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CHARLOTTESVILLE, Va. - Have you ever studied hard for an important test, gone in prepared, and somehow just bombed anyway? You might have said to yourself, "I just choked under the pressure."

New research in the February issue of *Psychological Science*, a journal of the American Psychological Society, shows that, at least for some people, there may be a lot to that excuse.

People high in working memory capacity -- a strong indicator of brainpower -- may lose their cognitive advantages in high-pressure tasks like taking tests.

Working memory is a short-term memory system that holds information that has immediate relevance to a task and keeps you focused on it.

A person's working memory capacity is known to predict how well they do at comprehension and learning, and, under normal conditions, how well they perform on difficult tasks. But according to the new study, it might not predict how well they do under pressure.

Normally, people with high working memory capacity (or HWM) have more cognitive "resources" available for problem-solving than do people with low working memory capacity (or LWM.)

However, the authors of the new report, Sian Beilock of **Miami University** of Ohio, and Thomas Carr of Michigan State University, were surprised to find that, when placed in high-pressure situations, "only individuals high in working memory capacity showed decrements" in performance.

Participants solved novel math problems of varying difficulties in both high- and low-pressure situations. The LWM individuals' performance, in contrast, did not deviate between situations.

How can these results be explained? The authors hypothesize that the extra cognitive resources and attentional capacity in the HWM participants were consumed by pressure-induced anxiety, resulting in working memory capacity similar to those with LWM.

This research has relevance in education, among other things. For instance, it raises questions about how well high-pressure tests like the SAT and college entrance exams can really predict who is most likely to succeed in future academic endeavours.

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