

# Research links test scores, pressure

By Lori Kurtzman

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For anyone who's ever choked and bombed on a high-stakes test, a new study by a Miami University instructor might help explain why.

"When High-Powered People Fail," a report in the February issue of *Psychological Science*, suggests that when the pressure's on, people most likely to succeed will fail because that pressure eats away at their working memory capacity.

Working memory, as defined by the study, is a short-term system that maintains limited information and keeps a person focused.

The finding might come as a surprise, said Sian Beilock, an assistant psychology professor at Miami, who conducted the study with Michigan State University psychology professor Thomas H. Carr. In a way, it's counterintuitive.

"You expect the students that would normally do the best not to be the ones that fail under pressure," Beilock said.

But that was exactly the case in the study, which involved 93 Michigan State University graduates who were given two tests, one low-pressure and one high-pressure.

The first test was practice, they were told. On the second test, participants were paired together and told they'd receive money if both members improved on their practice scores. They were also told that they were being videotaped so local math teachers and professors could study their performance.

On the first test, people with higher working memories outperformed those with lower working memories. But during the high-pressure test, that advantage disappeared.

Beilock said the findings could factor into the debate concerning how well high-stakes tests such as the SAT predict a student's future academic performance. Said the report: "Ironically ... the individuals most likely to fail under pressure are those who, in the absence of pressure, have the highest capacity for success."

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