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## Writing Can Do Wonders

By [Sian Beilock](#) on November 27, 2012 11:48 AM | [0 Comments](#)[Share](#)[Like](#) 83

You have no doubt heard that getting a problem "off your chest" will make you feel better. You may even have experienced the cathartic effect of talking about your worries. As it happens, disclosing does more than just make you feel better, it can actually change the workings of your brain when the pressure is on. The end result can be better performance under stress--on tests, in job interviews, and even on the playing field.

Take research conducted by one of my graduate students, Gerardo, at the University of Chicago. A few years back, Gerardo asked a group of students to take a difficult math test while we ratcheted up the stress. We called in several different techniques for putting the pressure on--including offering students \$20 for stellar performance and reminding them that, if they performed poorly, they would jeopardize the ability of a partner who also wanted to win money. We also videotaped students and told them that math teachers and professors would be watching the tapes to see how they performed.

Immediately after hearing what was on the line, we asked some students to write for about 10 minutes about their thoughts and feelings concerning the test they were about to take. We wanted the students to get their feelings about the pressure off their chest so we told them that they couldn't be linked to their writing by name so they should feel free to write openly and freely about their worries. Other students were not given the opportunity to write, but just sat patiently for about ten minutes while the experimenter got all the testing materials together.

What we found was quite amazing. Those students who wrote for ten minutes about their worries before the math test performed roughly 15% better than the students who sat and did nothing before the exam. Keep in mind that this difference doesn't just reflect variation in math ability across our writing and no-writing groups. We know this because everyone took a practice math test before the experiment got started and there was no difference in performance between the two groups. Those students given the opportunity to write about their worries before the math test improved, while those who didn't write choked under the pressure.

These results have also been extended to high-school classrooms. In another study, ninth graders were randomly assigned to an expressive writing condition (writing about their worries about the upcoming test) or a control condition (thinking about items that would not be on the upcoming test) for 10 minutes immediately prior to the first final exam (biology) of their high-school career. Both students and teachers were blind to the particulars of the study and the condition students were in. Those students who expressively wrote outperformed controls. This was especially true for students who have a tendency to worry on tests (i.e., students high in test anxiety). High test anxious students who wrote down their thoughts beforehand received an average grade of B+, compared with those who didn't write, who received an average grade of B-.



### Sian Beilock

Sian Beilock is a psychology professor at The University of Chicago and one of the world's leading experts on the brain science behind "choking under pressure" and the many factors influencing all types of performance: from test-taking to public speaking to your golf swing. Beilock received a B.S. in Cognitive Science from the University of California, San Diego and PhDs in both Kinesiology (sport science) and Psychology from Michigan State University. Her research is funded by the U.S. Department of Education and a CAREER award from the National Science Foundation. She was highlighted as one of four "Rising Stars" across all academic disciplines by the Chronicle of Higher Education in 2005 and chosen as one of twenty-five "Women to Watch" by Crain's Chicago Business Magazine in 2007. In 2011, she received the Spence Award for transformative early career contributions from the Association for Psychological Science. Sian Beilock runs the [Human Performance Lab](#) at the University of Chicago.

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Why does such a simple writing exercise have such a big impact? The answer has to do with the content of the writing itself. Writing reduces people's tendency to ruminate because it provides them with an opportunity to express their concerns. Expressing concerns gives people some insight into the source of their stress, allowing them to reexamine the situation such that the tendency to worry during the actual pressure-filled situation decreases.

Worries are problematic because they deplete a part of the brain's processing power known as *working memory*, which is critical to successfully computing answers to difficult test questions. Working memory is lodged in the prefrontal cortex (at the very front of our heads, sitting just above the eyes) and is a sort of mental scratch pad that allows people to "work" with whatever information is held in consciousness, usually information relevant to the task at hand. When worries creep up, the working memory people normally use to succeed becomes overburdened. People lose the brain power necessary to excel.

For several decades, psychologists has been extolling the virtues of writing about personally traumatic events in your life, such as the death of a close family member or a difficult breakup. Time and time again, psychologists have found that, after several weeks of writing about a life stressor, people have fewer illness-related symptoms and even show a reduction in doctor's visits.

Expressing your thoughts and feelings about an upsetting event--whether a trauma in the past or a pressure-filled test coming up in the future--is similar to "flooding therapy," which is often used to treat phobias and posttraumatic stress disorder. When a person repeatedly confronts, describes, and relives thoughts and feelings about his or her negative experiences, the very act of disclosure lessens these thoughts. This is good for the body because the chronic stress that often accompanies worrying is a catalyst for health problems.

Disclosure seems to be good for the body and for the mind. When university freshman, for example, are asked to write about the stress of leaving home for the first time and going off to college, they report a decrease in their worries and intrusive thoughts. Interestingly, writing about their worries also leads to improved working memory over the course of the school year. Expressive writing reduces negative thinking in stressful situations, freeing up brainpower to tackle what comes your way.

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