The brilliant crumble

Researchers may have discovered why an IQ of 160 doesn’t guarantee a great score on the SAT. Experiments using an increasingly high-pressure math quiz suggest that testing anxiety reduces the ability of very smart people to tap into what experts call their working (or short-term) memory capacity.

“It seems to be leveling the playing field,” said researcher Sian L. Beilock, an assistant professor of psychology at Miami University in Oxford, Ohio. In the study, published in the current issue of Psychological Science, Beilock and co-researcher Thomas Carr of Michigan State University compared the performance on a math test of 83 Michigan State undergrads.

In one experiment, the students simply were told to work through them at their own pace. But in subsequent experiments, the investigators ratcheted up anxiety levels through time constraints and other manipulations, such as telling them the tests would be videotaped to be reviewed by experts later.

Very intelligent individuals with high working, or short-term, memory tended to crumble under those pressures, Beilock said, bringing their test scores down. On the other hand, test scores for students with relatively low levels of working memory remained more or less the same, regardless of the pressures put on them.