

Psychological headwind keeps women, minorities from sprinting ahead of their peers, study finds

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(PhysOrg.com) -- Let's say a white student and a black student both score 1020 on their SATs. They're performing right around the national average, so based on their scores it stands to reason they're both typical students with the same level of potential, right?

Wrong, say psychologists at Stanford University and the University of Waterloo. According to a study slated for publication in *Psychological Science*, the black student is likely a better student and has more potential. His performance was likely hurt by the worry that he might be perceived as confirming the stereotype that blacks do poorly on intellectual tests. This worry, called stereotype threat, prevents him from doing as well as he could, the researchers say.

Stanford's Greg Walton and Waterloo's Steven Spencer tested nearly 19,000 students in the United States, Canada, France, Germany and Sweden. They found that when stereotype threat—which is often embedded in standardized testing and general classroom environments—is minimized, ethnic minorities and women outperform non-minorities and men at the same level of past performance. That means the black student who received the same 1020 on the SAT as his white classmate would likely have scored higher in the absence of stereotype threat. His 1020 underestimated his true ability.

Walton and Spencer found that stereotype threat causes a broad range of

black and Hispanic students to underperform on the SAT by about 40 points. And it lowers many women's scores on the math portion of the test by about 20 points.

"Women and minorities are running into a headwind," said Walton, an assistant professor of psychology. "Their scores underestimate their true ability."

Walton and Spencer call the idea "latent ability." But the notion that stereotypes affect performance does not only apply to minorities and women in academic situations, the researchers say.

"The stereotype that white men can't jump can undermine white men's athletic performance," Walton said. "A normal feature of how we work as humans is that we are affected by how other people may perceive us. It's disturbing to think that, if you perform badly, other people could think negatively about your group. It's distracting, and it undermines performance."

When it comes to standardized tests like the SAT or GRE, stereotype threat comes across in subtle ways. Students are often asked to identify their race or gender before taking the exam, which puts those issues front and center in their minds. Or they may simply be aware of a general stereotype, such as "men are better at math than women," so when they take a test the stereotype comes to mind and hurts their performance.

But by doing things like putting demographic questions at the end of the test, by telling students that tests are gender-fair or by having them reflect on their personal values before taking the exam, stereotype threat goes down and the performances of minorities and women go up, the researchers found.

"There's enormous untapped potential in people who are targeted by negative stereotypes," Walton said. "These people are performing at a level that doesn't reflect their true ability. And if you do small but psychologically astute things, their performance rises dramatically."

The findings have led Walton and Spencer to explore the practical and social implications of the latent ability effect. If standardized tests and other tools used to measure intellectual ability are biased against certain groups, what can be done about it? And if SAT scores or other measures of past performance mean different things for different groups, how does a university or business best judge someone applying for college or a job?

"Organizations should take into account bias on a test that hides the untapped potential of members of stereotyped groups," said Spencer, a psychology professor. "To fail to do so would be to sanction discrimination. But that is not enough. In addition to correcting for the bias, schools and companies should work hard to create safe environments that minimize stereotype threat. That would allow everybody to perform at their best and ultimately would help organizations as a whole excel."

Provided by Stanford University

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