Women Aren't Good in Math . . . or Are They?

By Richard Morin
Thursday, August 31, 2006; A02

Strange but true: Women score much lower on math tests if they are first asked unrelated questions about gender issues. The phenomenon is called "stereotype threat" -- a kind of performance anxiety discovered in 1995 when psychologists found that black students at Stanford University did significantly worse on intelligence tests if they were first asked to identify their race on the test form.

Since then, dozens of other experiments have confirmed that subtly cuing women or minorities to think subconsciously about their sex or race causes them do poorly in areas where the stereotype suggests they are weak.

University of Texas psychologist Matthew S. McGlone wondered if there wasn't another side of the story. What if you prompted people to think about their strengths rather than their stereotypical weaknesses -- would that be enough to improve performance in areas where they weren't supposed to do well?

In a novel set of experiments, McGlone, working with Joshua Aronson of New York University, found that the answer is yes. "The idea that something is immutable due to some biological factor can be trumped," McGlone said.

Their ingenious study involved 90 students, half men and half women, at Lafayette College in Easton, Pa. The students filled out a questionnaire that first asked them general questions about campus life. In a second section, researchers varied the questions to get these students thinking in slightly different ways.

One group of students were asked whether they lived in a single-sex or coed dorm. Previous studies found even this benign question unconsciously activated male and female stereotypes, McGlone said.

Another group answered questions about why they chose to attend a private liberal arts college. The goal was to nudge these young women and men into thinking how smart and accomplished they were. "We were activating their snob schema," McGlone said with a chuckle. The remaining students, the control group, were asked to write about their experience living in the northeastern United States.

The students then took the Vandenberg Mental Rotation Test, a standard test of visual--spatial abilities linked to math performance in which objects are shown at different angles and the test-taker has to pick the identical pair. Previous studies found that men are three times as likely as women to do well on this test, McGlone and Aronson wrote in a forthcoming issue of the Journal of Applied Developmental Psychology.

When they analyzed the data, they found that men in the control group did, indeed, perform 15 to 20 percent better than the women on the Vandenberg test, in line with previous studies. Among those who had been subtly cued to think about their gender, the gap was even wider -- guys did "25 percent to 30 percent better than the women," again consistent with previous research, McGlone said.
The surprise came among those who were primed to think about their status as students at an exclusive private college.

The gender gap closed dramatically, as women's scores improved while men's stayed the same. "There was no significant difference between men and women," McGlone said. "With a pretty simple manipulation, we could significantly reduce this gap," which suggests that "there might be things that make all of these biological factors go away."

**Obesity Begins in the Womb**

Add babies to the growing list of overweight Americans.

Harvard researchers studied 120,680 children younger than 6 and found that the prevalence of overweight children jumped 59 percent from 1980 to 2001.

The number of overweight infants up to 6 months old also ballooned a whopping 74 percent during the 22-year study period, said Matthew Gillman, an associate professor at Harvard Medical School.

**One Way to Cure Depression**

Feeling blue? Get married.

Graduate student Adrianne Frech and sociologist Kristi Williams of Ohio State University found that depressed single people were far more likely to benefit emotionally from marriage than better-adjusted men and women.

The researchers used data collected by the National Survey of Families and Households, which interviewed a representative sample of Americans in 1987-1988 and then re-interviewed them in 1992-1994, including 3,066 people who were single at the time of the first interview. The researchers presented their study at the recent meeting of the American Sociological Association.

Frech and Williams suggested that depressed people may benefit more from marriage because they may be in more need of emotional closeness and social support. Then again, happy people are already feeling good about themselves, Williams suggested.

**Who Would Have Thought? Sunspots and Creative Inspirations**

- "Correlations for Number of Sunspots, Unemployment Rate, and Suicide Mortality in Japan" by Akiko Otsu, et al., Perceptual and Motor Skills, Vol. 102. A Japanese research team headed by a Kyoto University professor of health found that an increase in the number of sunspots was associated with a decline in unemployment and a drop in the suicide rate among Japanese men.

- "Peacocks, Picasso, and Parental Investment: The Effects of Romantic Motives on Creativity" by Vladas Griskevicius, et al. Journal of Personality and Social Psychology, Vol. 91, No. 1. A team of Arizona State University psychologists found that men performed better on tests of creativity after viewing photos of attractive women, imagining short-term liaisons or long-term relationships, but that women were more creative only when they imagined devoted long-term partners.

Richard Morin is a senior editor at the Pew Research Center. Versions of this column appear at washingtonpost.com and www.pewresearch.org.

© 2006 The Washington Post Company
Inside A Boyfriends Mind
10 Free Secrets On Men & Commitment To Keep Relationships & Love Alive
www.CatchHimAndKeepHim.com

Closing Achievement Gap
Teacher Development Tools. Professional Development Curriculum
www.schoolimprovement.com

Find Religious Degrees
Let us Help You Choose the Top Online Religious Studies Degree
www.eDegreeFinder.com