

More Career Options May Explain Why Fewer Women Pursue Jobs in Science and Math

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Women may be less likely to pursue careers in science and math because they have more career choices, not because they have less ability, according to a new study published in [*Psychological Science*](#), a journal of the [Association for Psychological Science](#).

Although the gender gap in mathematics has narrowed in recent decades, with more females enrolling and performing well in math classes, females are still less likely to pursue careers in science, technology, engineering, and mathematics (STEM) than their male peers.

Researchers tend to agree that differences in math ability can't account for the underrepresentation of women in STEM fields. So what does?

Developmental psychologist Ming-Te Wang and his colleagues at the University of Pittsburgh and University of Michigan wondered whether differences in overall patterns of math and verbal ability might play a role.

The researchers examined data from 1490 college-bound US students drawn from a national longitudinal study. The students were surveyed in 12th grade and again when they were 33 years old. The survey included data on several factors, including participants' SAT scores, various aspects of their motivational beliefs and values, and their occupations at age 33.

Looking at students who showed high math abilities, Wang and colleagues found that those students who also had high verbal abilities — a group that contained more women than men — were less likely to have chosen a STEM occupation than those who had moderate verbal abilities.

Further analyses suggest that gender differences in career choice could be explained, at least in part, by differences in students' combinations of abilities.

According to Wang, this study identifies a critical link in the debate about the dearth of women in STEM fields.

“Our study shows that it's not lack of ability or differences in ability that orients females to pursue non-STEM careers, it's the greater likelihood that females with high math ability also have high verbal ability,” notes Wang. “Because they're good at both, they can consider a wide range of occupations.”

Notably, those participants who reported feeling more able and successful at math were more likely to end up in a STEM-related job, and this was particularly true for students who had high math and moderate verbal abilities. Thus, math may play a more integral role in these individuals' sense of identity, drawing them toward STEM occupations.

Considerable funds have been put into designing and testing a wide variety of intervention programs to increase female participation in math-intensive careers.

According to Wang, these new findings suggest that “educators and policy makers may consider shifting the focus from trying to strengthen girls’ STEM-related abilities to trying to tap the potential of these girls who are equally skilled in both math and verbal domains.”

In addition to Wang, co-authors include Jacquelynne Eccles and Sarah Kenny of the University of Michigan.