



Math is Not a Question of Gender

Although we live in the 21st century, and much has been achieved regarding female emancipation, there exist still many prejudices. In order to progress as a nation and society, we have to face these prejudices and put an end to them.

Whether you are a feminist or egalitarian; true equality can only be achieved after all prejudices have disappeared. That's why today, I want to focus on the myth that women are apparently worse at math than men.

Why does the Myth exist?

The reasons for the false perception are mostly societal and cultural expectations. As a [research](#) of the American Psychological Association (APA) pointed out:

„The research suggests that perceived or actual differences in cognitive performance between males and females are most likely the result of social and cultural factors“

However, there's more: the website lists different studies which have been done over the decades:

Nr 1: *"In 1990, Janet Shibley Hyde, PhD, a psychologist at the University of Wisconsin, and colleagues published a groundbreaking meta-analysis that compiled data from 100 different studies of math performance. Synthesizing data collected on more than 3 million participants between 1967 and 1987, the researchers found no large overall differences between boys and girls in math performance."*

Nr 2: *"As for verbal ability, in 1988, Hyde and colleagues reported that data from 165 studies revealed a female advantage so slight as to be meaningless, despite previous assertions that girls are more verbally adept."*

Nr 3: *"In a 2005 report, Hyde reviewed 46 different meta-analyses on sex differences, not only in cognition but also communication style, social and personality variables, motor behaviors and moral reasoning. In*

half the studies, sex differences were small; in another third they were virtually nonexistent."

Nr 4: *Elizabeth Spelke, PhD, a psychologist on the Harvard University, reviewed with her colleagues at the same year (2005) 111 studies and came to the conclusion "that gender differences in math and science ability have a genetic basis in cognitive systems that emerge in early childhood", and furthermore: "In fact, boy and girl infants were found to perform equally well as young as 6 months on tasks that underlie mathematics abilities."*

Finally, Nr 5: *"And in 2009, Hyde and Janet Mertz, PhD, reported that while more boys than girls score at the highest levels in mathematics, that gender gap has been closing over time. In fact, they reported that the gap is smaller in countries with greater gender equality, suggesting that gender differences in math achievement are largely due to cultural and environmental factors."*

Another study, this time not from the APA website, is also worth mentioning:

Jessica Cantlon and her team of the [Carnegie Mellon University](#) came to the same conclusion. 104 children have participated in the [study](#) (from 3 to 10 years: 55 girls) and had to do a test. There, they were shown informative videos about early math topics.

Additionally, they also compared adult brain scans to children brain scans, as the article points out:

"In addition, the team examined brain maturity by comparing the children's scans to those taken from a group of adults (63 adults; 25 women) who watched the same math videos."

The Result: *"They found that math ability was equivalent among the children and did not show a difference in gender or with age. Nor did the team find a gender difference between math ability and brain maturity."*

Meaning of the Findings

As one may expect, these findings are quite important. To quote the American Psychological Association: "If males and females were truly understood to be intellectual equals, things might change in schools, colleges and universities, industry and the workplace in general."

However, for that change to happen, the myth of the disadvantage must perish. Awareness campaigns may be the key to it.

Stereotypes and false perceptions of a group are not just harmful to the individuals within this group, but also to the society as a whole. Prejudices, like the one above which are scientifically inaccurate, impair on the freedom of self-development. And that's an essential pillar in a liberal-democratic society.