EDUCATION

Reading and the math gender gap

Proc. Natl Acad. Sci. USA <https://doi.org/10.1073/pnas.1905779116>

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Why are women under-represented in math-intensive fields? The difference in mathematical ability between girls and boys is too meagre to explain this gap and indeed too meagre to explain the resulting prevalence of gender-based wage inequality.

Thomas Breda of the Paris School of Economics and Clotilde Napp of the Université Paris-Dauphine asked if this underrepresentation might be due to choices made by individuals based on their own relative skill set across disciplines. Perhaps girls don't avoid math-related fields, but instead choose to pursue the disciplines in which they personally excel most highly.

Breda and Napp analysed data from an international assessment of 300,000 15-year-old students from 64 countries. Boys had a slight advantage in math ability, but girls had a comparatively large advantage in reading ability.

Their findings confirm that the small gender difference in math ability does not explain why so many more boys opt to study math. Instead, the culprit is indeed individual-level disparity. Regardless of gender, all students are most likely to pursue math if their math ability exceeds their reading ability. Girls are more likely to excel at reading, and thus less likely to embark on math-related careers.

This has important implications for educational policy. The gender gap in reading ability is three times larger than the gap in math ability. Policymakers aiming to reduce inequality must consider strategies that will improve boys' reading performance, alongside programmes that encourage the pursuit of math by girls.

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Published online: 18 September 2019
<https://doi.org/10.1038/s41562-019-0753-9>