

By age 6, children think boys are better in **computer science, engineering, and physics.**

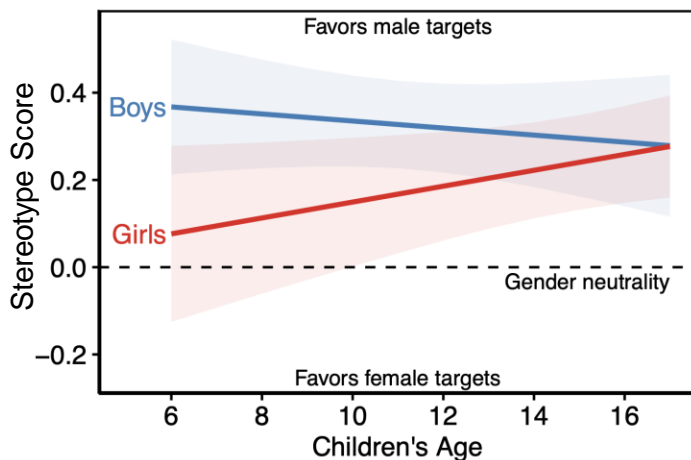
But math stereotypes are more gender neutral.

 [#1920401: The Development of Gender Stereotypes About STEM Abilities: A Meta-Analysis](#)

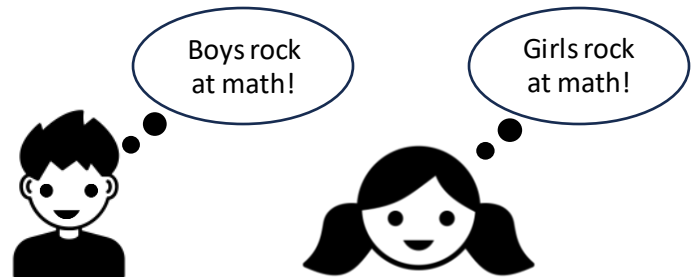
CS, Engineering, Physics



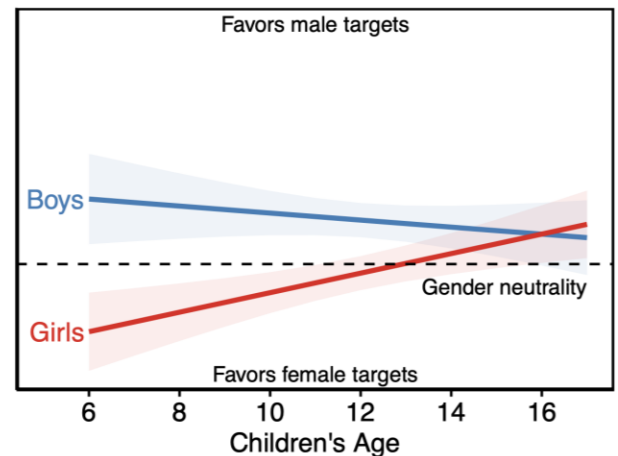
After age 6, **girls increasingly** believe with age in **male superiority** in computer science (CS), engineering, and physics ability.



Mathematics



For math, children just show **in-group bias** at age 6. These beliefs shift with age but still only **weakly** favor male ability at age 16.



Methods

Systematic review

Meta-analysis

- Registered hypotheses and analysis plan on OSF.
- Screened more than 18,000 citations for eligibility.
- Found 98 eligible studies representing 145,000+ children.
- Spans four decades of data (1977–2020) and 31 nations.
- Latest meta-analysis methods (e.g., robust variance estimation).

Challenge Area

Dissemination

What are innovative but feasible ways to disseminate to (a) applied researchers interested in building on the findings or (b) STEM outreach organizations with gender-based programming?



David Miller, Courtney Tanenbaum, Lauren Burr

←  [Preprint: bit.ly/45tY7Aq](https://bit.ly/45tY7Aq)

 dimiller@air.org

 @davidmiller