By Age 6, Children Think Boys Are Better in

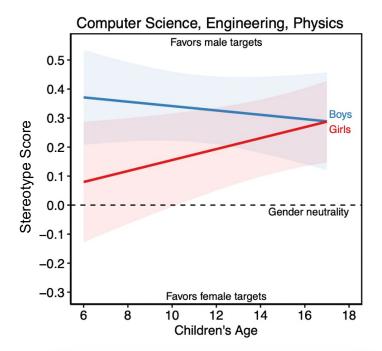
Computer Science, Engineering, and Physics.

Math stereotypes tell a different story.

#1920401: The Development of Children's Gender Stereotypes About STEM Abilities: A Meta-Analysis



Result 1: By age 6, both boys and girls strongly believe in **male superiority** in computer science, engineering, and physics ability.

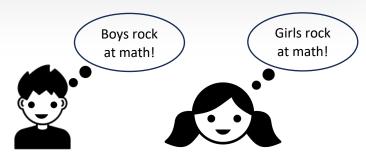


Methods

Systematic review

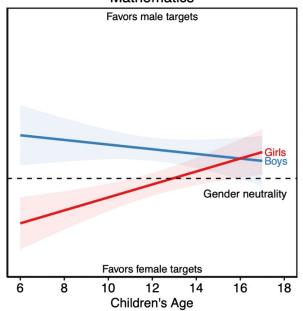
Meta-analysis

- Pregistered hypotheses and analysis plan on Open Science Framework.
- · 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.
- Used latest meta-analysis methods (e.g., robust variance estimation).



Result 2: But for math ability, children only show **in-group bias** at age 6. These beliefs shift across age but still only **weakly** favor male ability at age 16.

Mathematics



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?









