# By age 6, children think boys are better in

## computer science, engineering, and physics.

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

But mathematics is a different story.

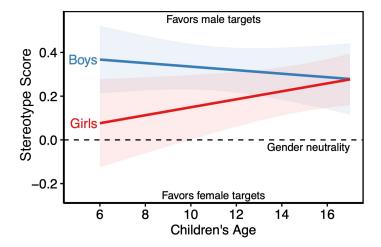


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## **CS, Engineering, Physics**



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



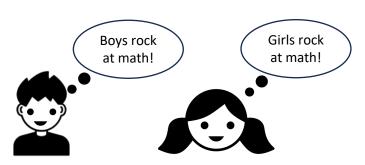
#### **Methods**

Systematic review

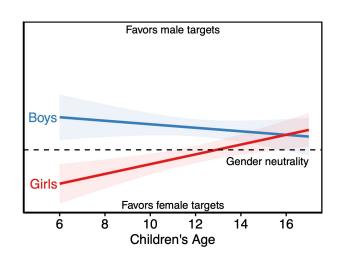
Meta-analysis

- Pregistered 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).

#### **Mathematics**



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



### **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?







