Mind Bugs
The Ordinary Origins of Bias

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Implicit Gender-Science Stereotypes

Male Respondents

Female Respondents

Nosek, Smyth, et al., 2007
Major Field of Highest Degree

Smyth, Greenwald & Nosek, 2009
Estimated probability of majoring in science as a function of sex and implicit gender-science stereotype

![Graph showing the estimated probability of majoring in science as a function of sex and implicit gender-science stereotype. The graph indicates a downward trend for women and an upward trend for men, with a mid-98% range observed D scores.]

Smyth, Nosek, & Greenwald, 2010
Implicit Bias and Science Scores

Male Advantage TIMSS (8th Grade Science)

Male = Science & Female = Liberal arts
Implicit Associations (IAT D)

Nosek, Smyth, et al., 2009, PNAS
When Is Bias Influential?

• When people don’t think
  – Making fast decisions
  – Expectations
  – Overconfident
• When people do think, but situation is ambiguous
  – Incomplete information
  – Criteria unclear
Instructor as Role Model

Female Students

Male Students

Implicit Math Identity

Female
Male Professors

Stout, Dasgupta, Hunsinger, & McManus, 2011
When is Bias Influential? (tentative list)

• When people don’t think
  – Making fast decisions
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  – Overconfident

• When people do think, but situation is ambiguous
  – Incomplete information
  – Criteria unclear
Practical Steps for Reducing Bias

• Humility and awareness
• When decisions are important, slow and calm down
• Question your expectations, push and engage students equally
• Look for counterevidence in decisions
  – Encourage disagreement
• Make selection criteria explicit, evaluate in comparison to those criteria
• Remember the people NOT in this room
http://implicit.harvard.edu/

1. Black-White attitudes
2. Young-Old attitudes
3. Gay-Straight attitudes
4. Thin-Fat attitudes
5. Religion attitudes
6. Skin-tone attitudes
7. Disability attitudes
8. Gender-science stereotypes
9. Gender-career stereotypes
10. American = White?
11. Race-Weapons stereotypes
12. Native American stereotypes

+ 33 country specific sites in 21 languages
Thank You!

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