

Narrowing the Racial Learning Gap: Lessons From Psychology

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Research Topics Covered


1. Review of Stereotype Threat with Q&A
2. Promoting Positive Identities for Students
3. Growth Mindset with Q&A






“Human intelligence is among the most fragile things in nature. It doesn’t take much to distract it, suppress it, or even annihilate it.”

--Neil Postman



“Human intelligence is more fragile and malleable than most people think—far more so than the than the makers of the SAT and other tests would have us believe. ”

Joshua Aronson (2009)

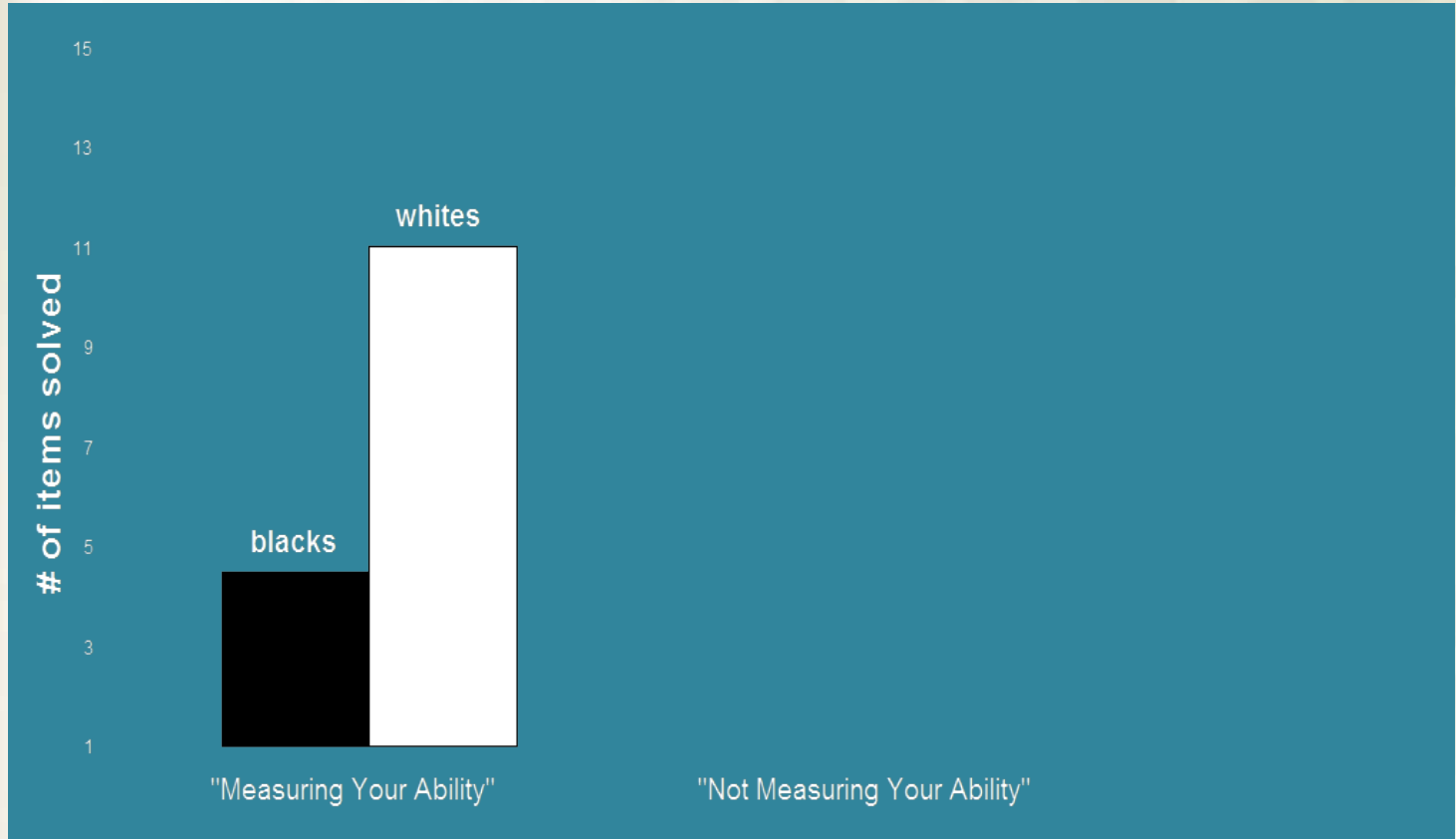


Quick Review of Laboratory Experiments on Stereotype Threat

Steele & Aronson (1995). Journal of Personality and Social Psychology.

- Method: Changing Instructions to Reduce Evaluative Scrutiny or Threat (“not measuring your ability” versus “measuring your ability”)
- Measure: Blacks’ and Whites’ Performance on Small Set of Verbal GRE Items

Verbal Test Performance



Verbal Test Performance



Verbal Test Performance



Laboratory Experiment on Stereotype Threat

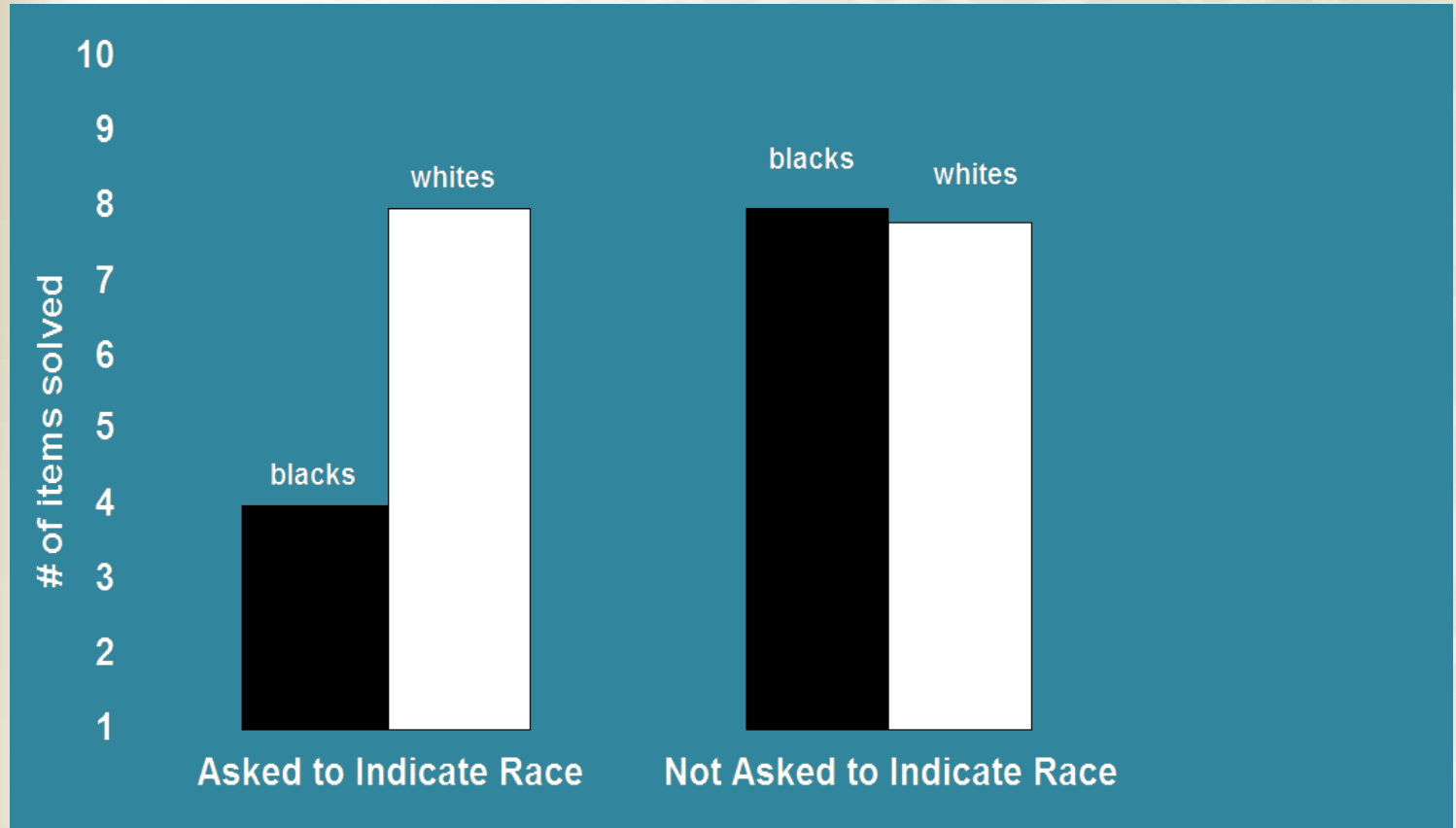
Steele & Aronson (1995)

Method: Inducing the Relevance of Race (asked to indicate race vs not asked to indicate race)

Measure: Blacks' and Whites' Verbal GRE Performance



Verbal Test Performance



Participant Questions about Stereotype Threat Research from Jan. 20th

- Are the stereotype threats studied, the stereotypes of how minority students perceived themselves or stereotypes of how some teachers might perceive their minority students, or both?
- If race is included in information requested of students on tests in the context of other identifying information, does it have the same kind of effect on test performance?
- Is there research on whether stereotype threat impacts students as they grow older (into high school and adulthood)?





More Questions from Participants

- Geoff used the quote “there’s a lot more pressure on you knowing that if you fail, you fail your race”: Do you think some students may use this as a crutch or as a reason for not trying?
- Can you teach students to recognize feelings of stereotype threat so it doesn’t affect their performance on school work?
- Other questions?



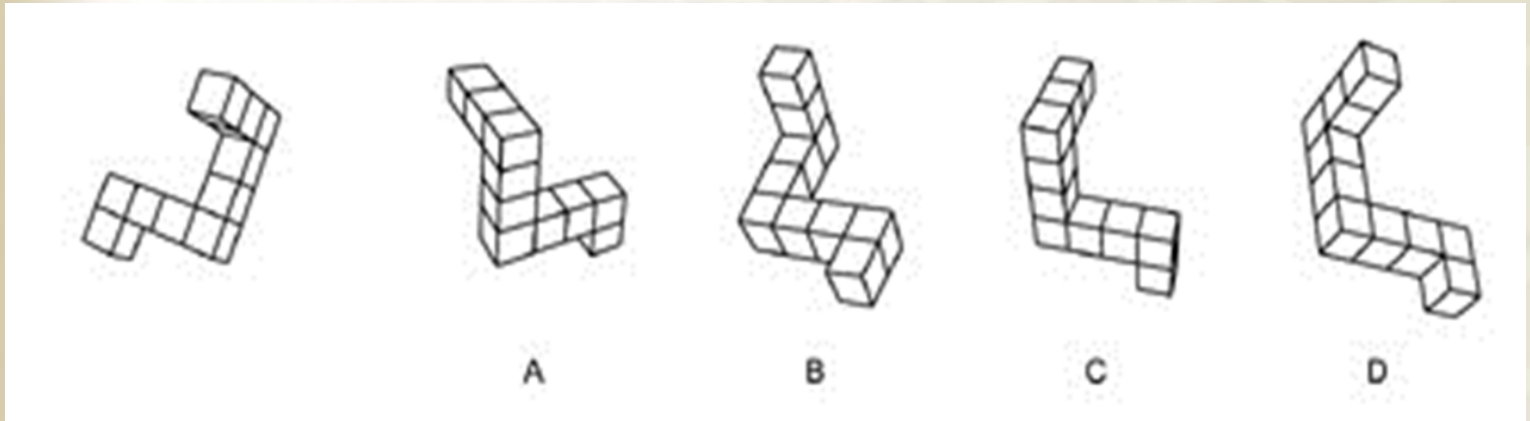
Promoting Positive Identities
or
“Crellin Students Tie Their Own Shoes”

Biological Differences in Spatial Ability

- Largest sex differences: Spatial Ability
- May account for most of the math test score gap
- Testosterone?

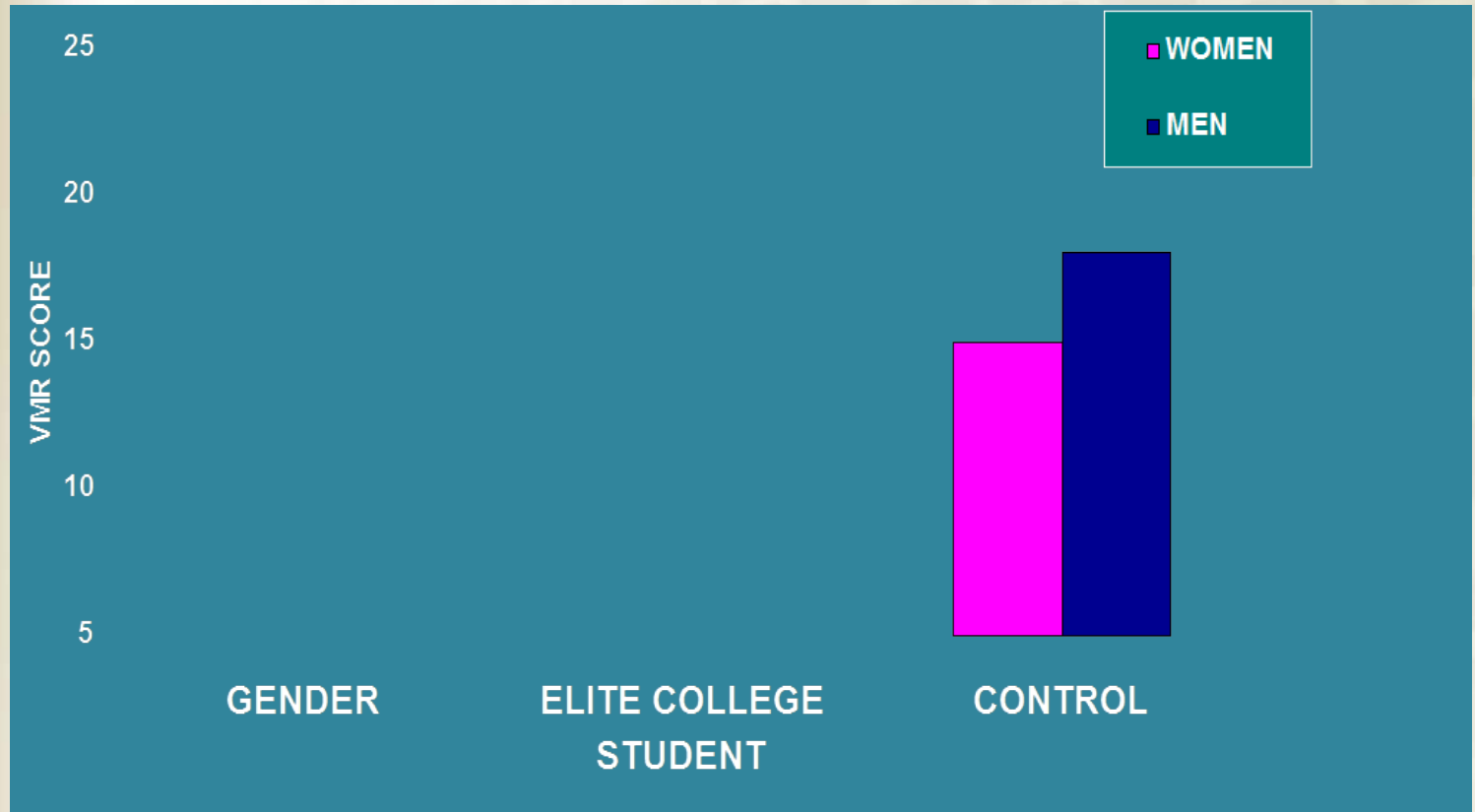


Vandenberg Mental Rotation Task

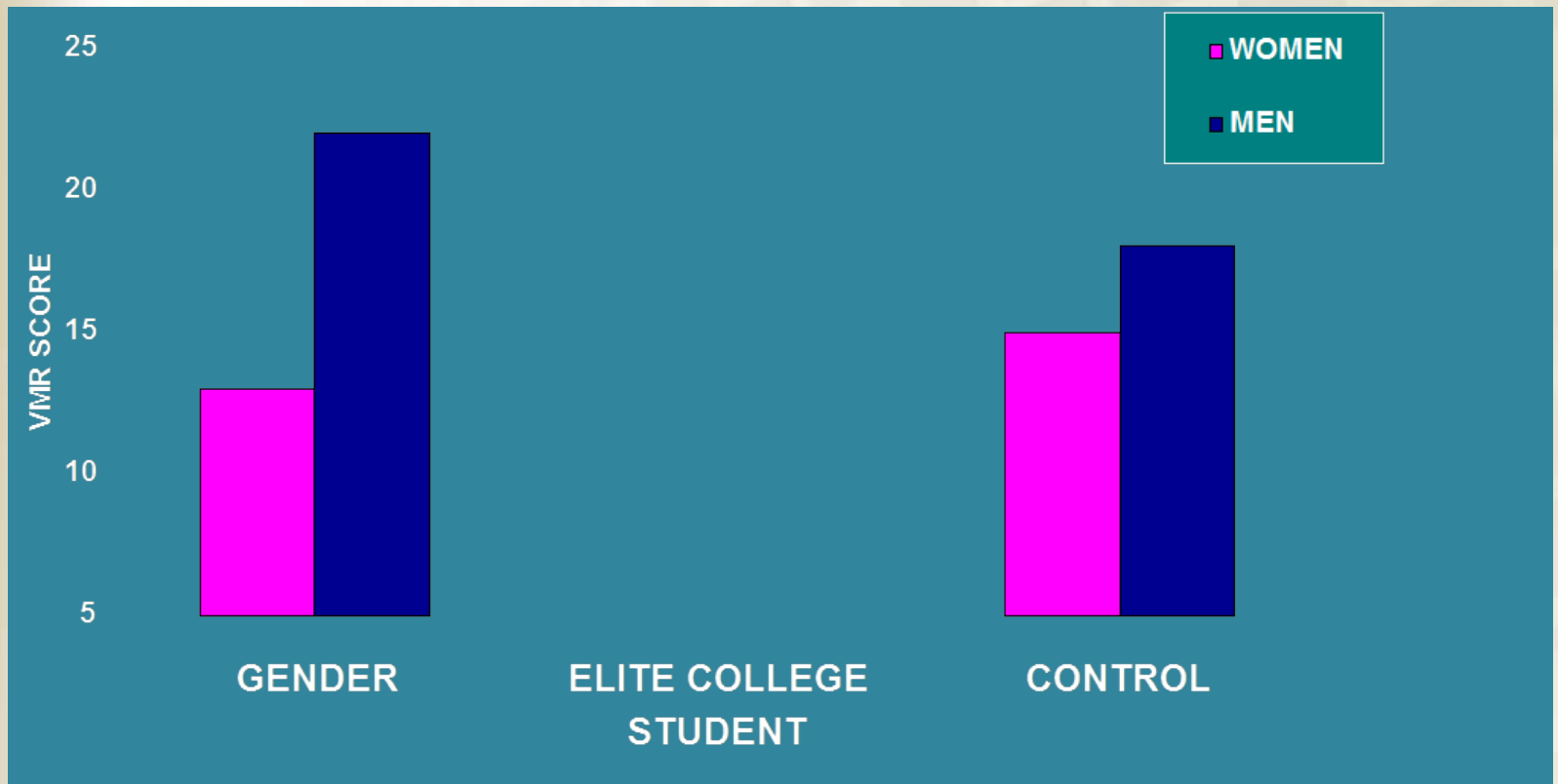


A meta-analysis containing 286 data sets and 100,000 subjects found a highly significant male advantage for mental rotation; this pattern remains stable across age and has not decreased in recent years.

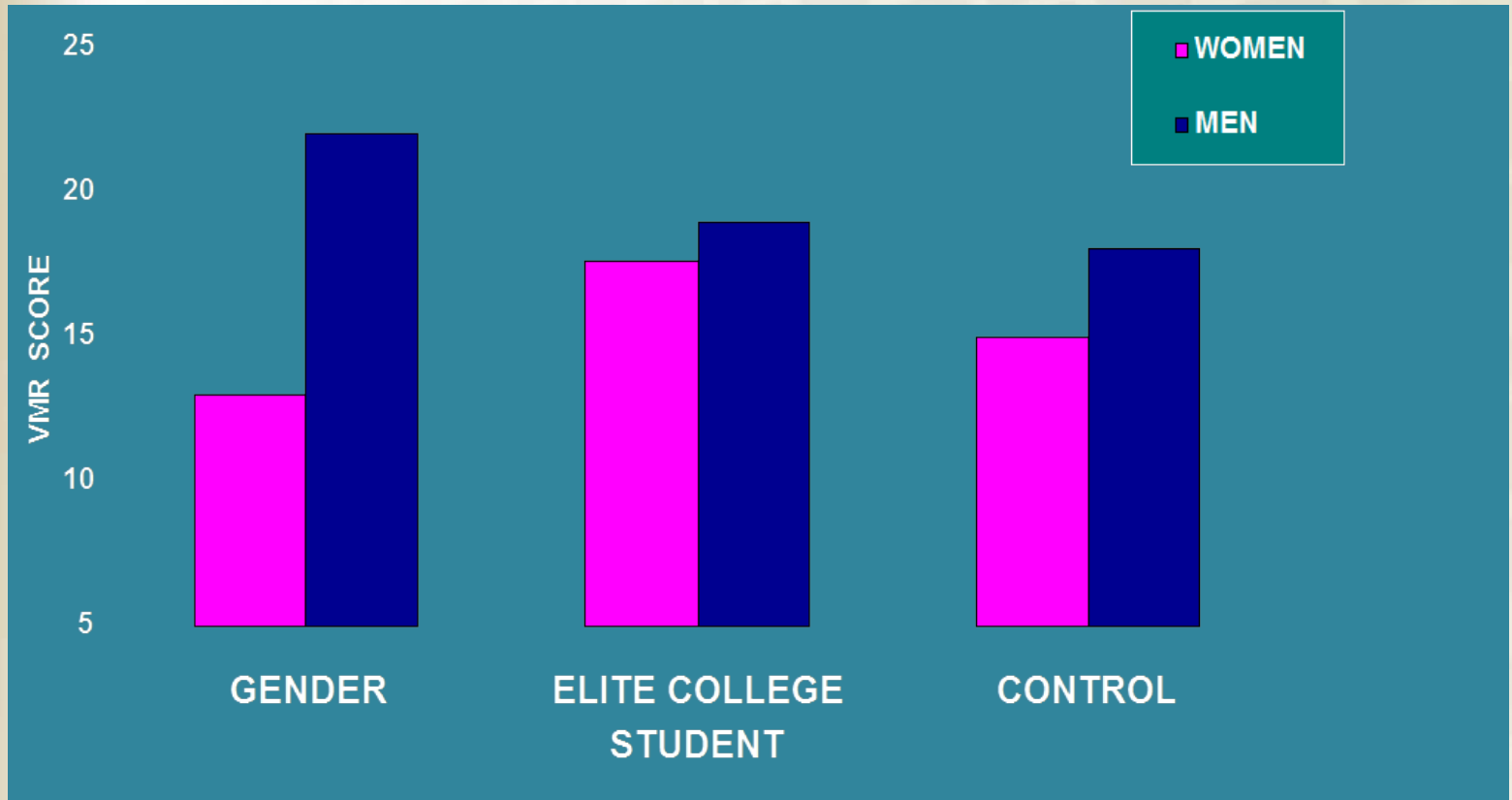
Identity Salience Influences Women's Mental Rotation Performance



Identity Salience Influences Women's Mental Rotation Performance



Identity Salience Influences Mental Rotation Performance



The Growth Mindset





Intelligence and How to Get It

WHY
SCHOOLS
AND
CULTURE
COUNT



RICHARD
NISBETT





Experiment #1

Aronson, McGlone & Doyle (2010)

Question:

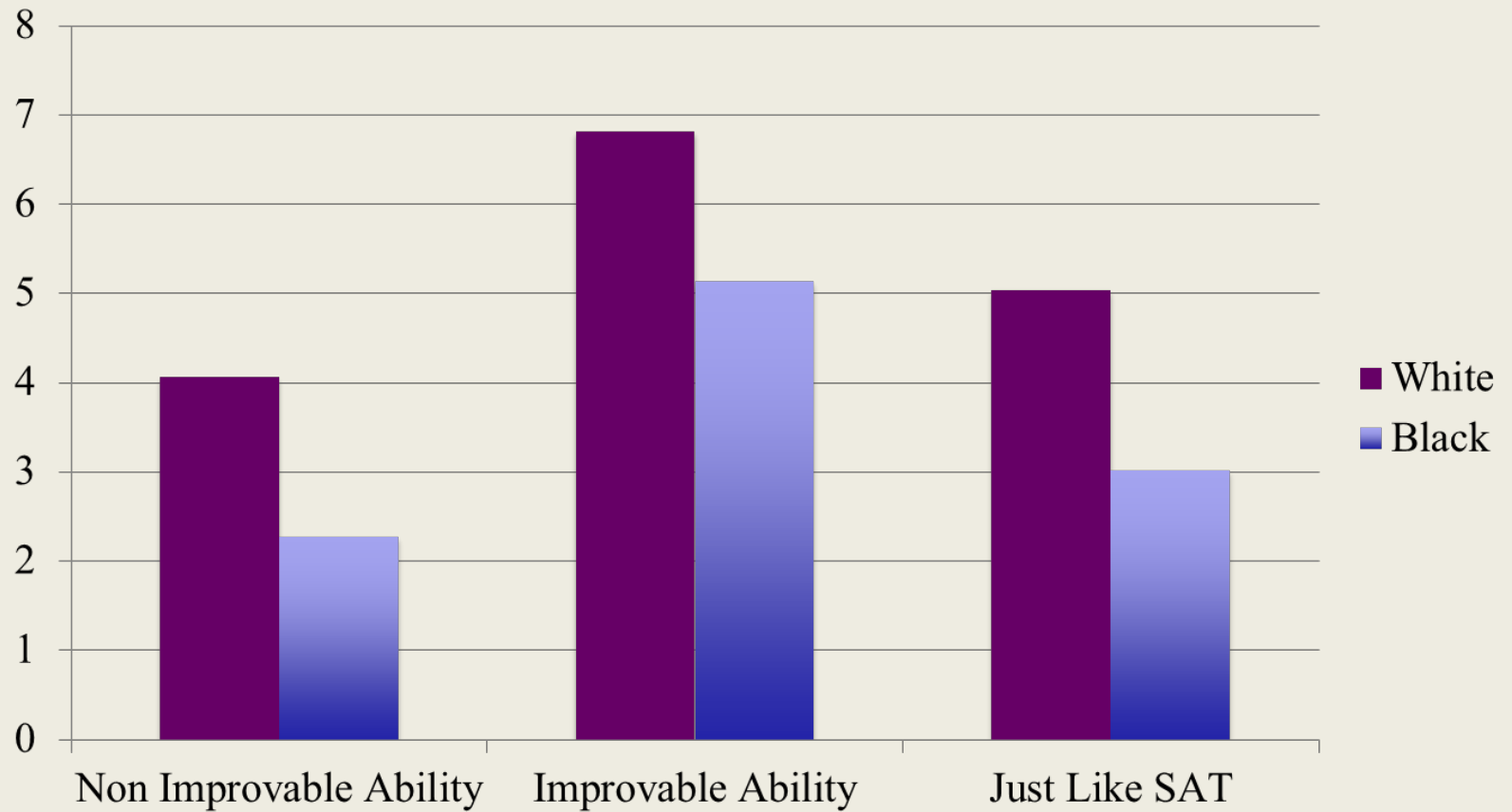
What if you were led to believe ability is malleable? Would it reduce effects of stereotype threat?

Intervention/Method: Framing test as a measure of a fixed or a malleable ability

Measure: Blacks' and Whites' Test Performance



Student Performance



Experiment #2

Alter, Aronson, Ruble & Darley (2010)

Question:

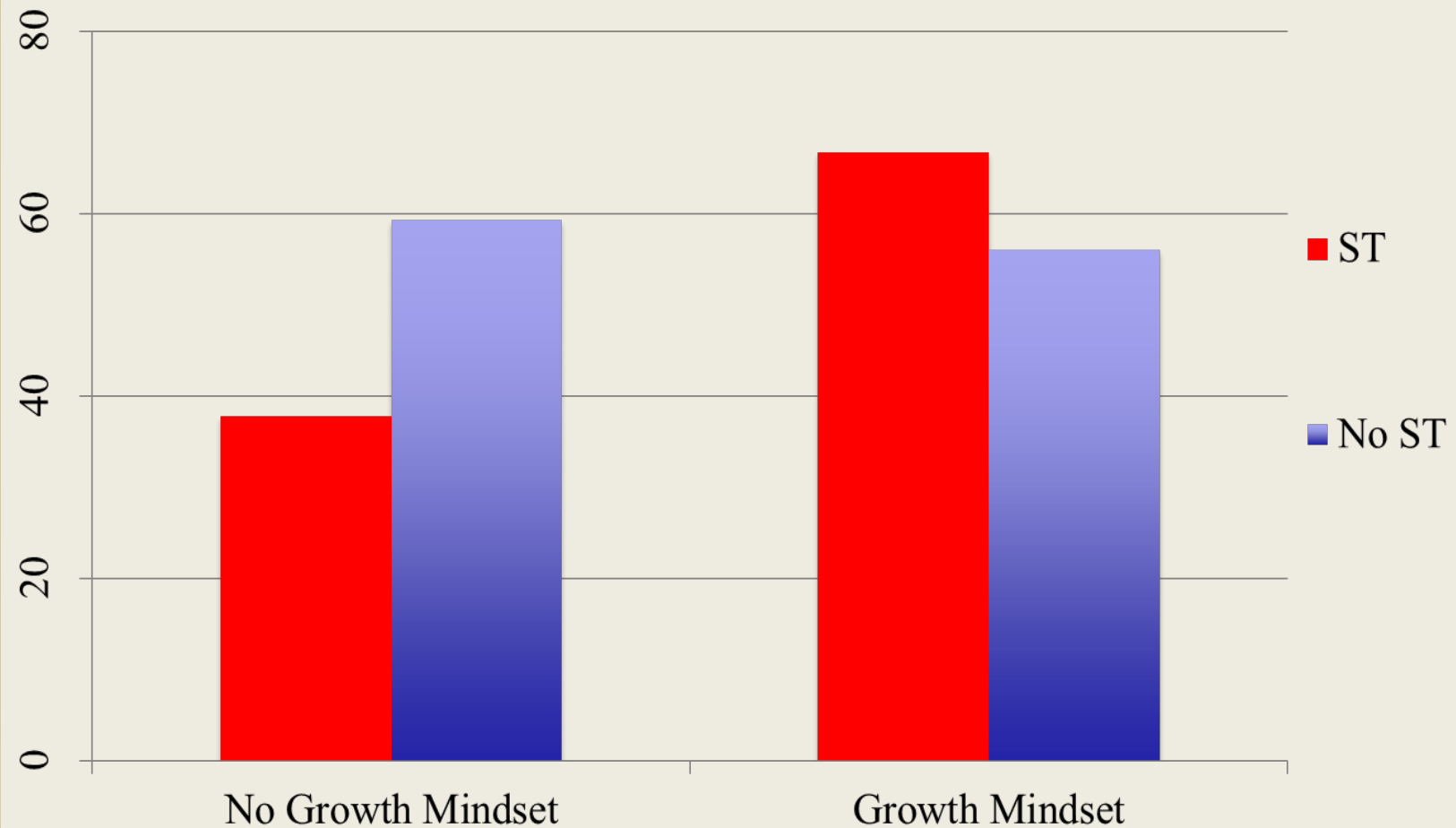
What if you were led to believe an ability is malleable? Would it reduce effects of stereotype threat?

Intervention/Method: Framing test as a measure of a fixed or a malleable ability

Measure: Blacks' Children's end of grade Math Test Performance



Black school students' performance on Mathematics End of Grade Exam



Experiment #3:

The Growth Mindset and Student Grades

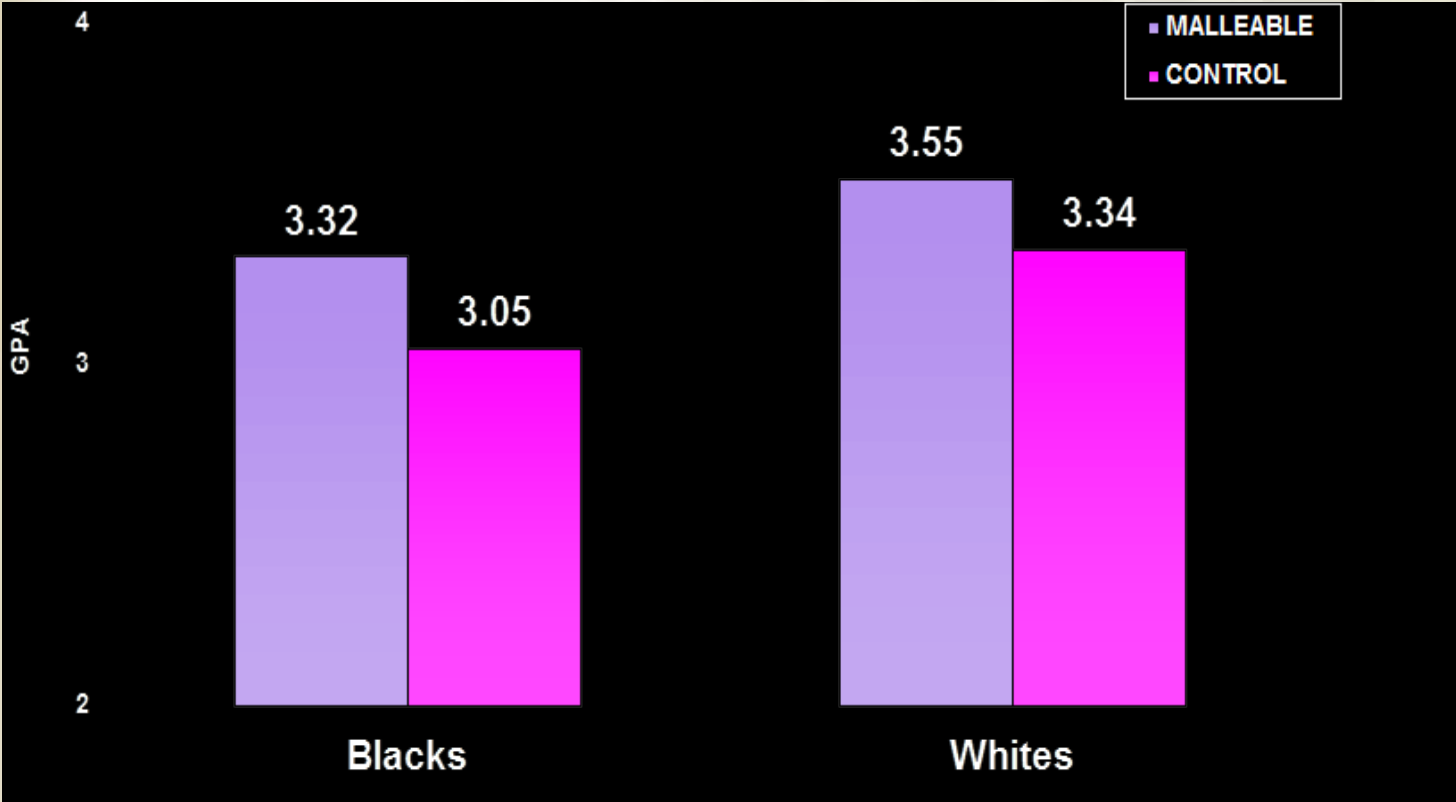
Question: Can getting people to believe in expandable intelligence reduce effects of stereotype threat on GPA?

Method: Attitude change

Measure: End of year GPA



Year End Follow-Up: GPA



Experiment #4:

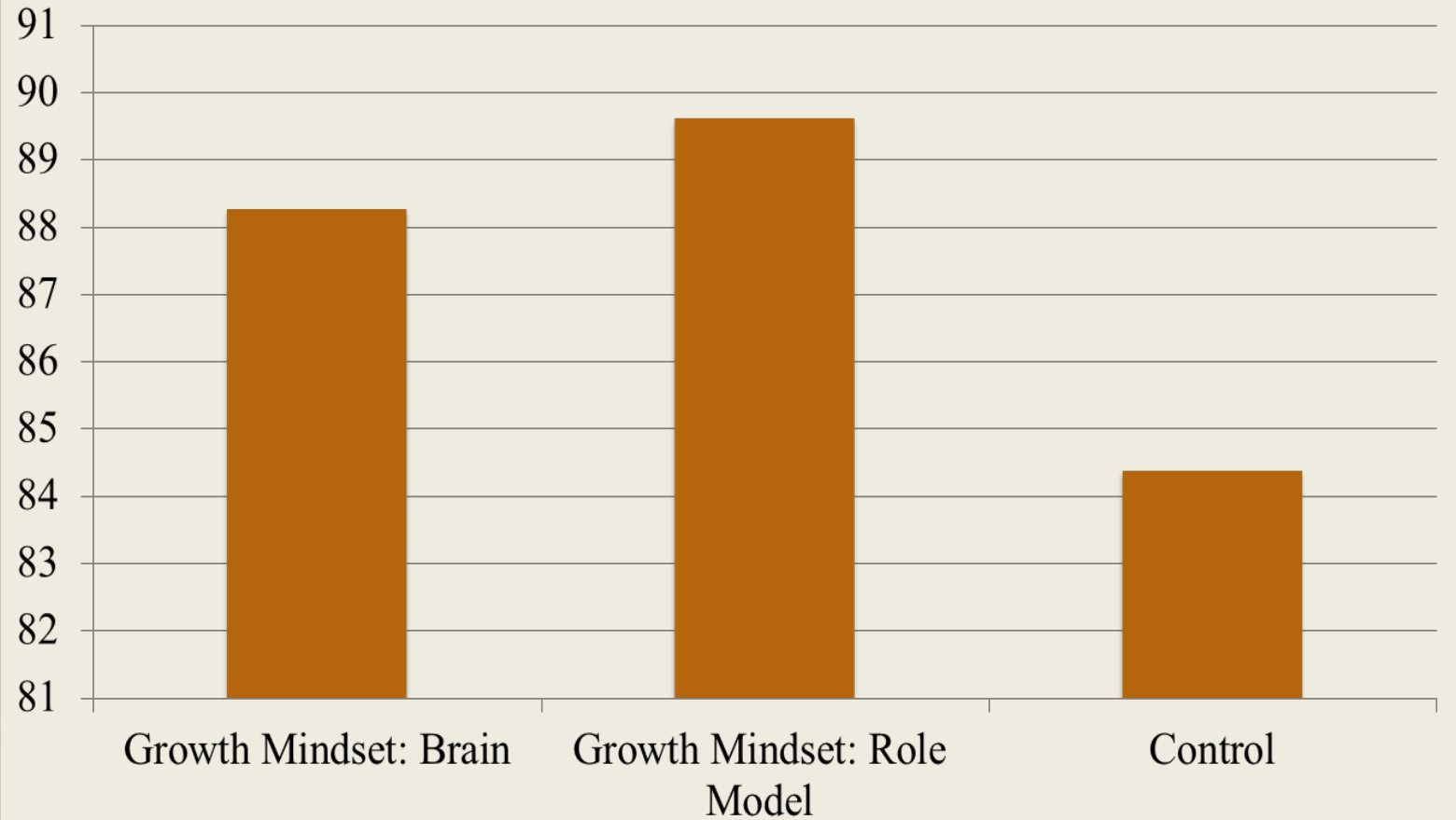
A Field Intervention To Improve Test Performance

Question: Can teaching the growth mindset raise test scores of minority students?

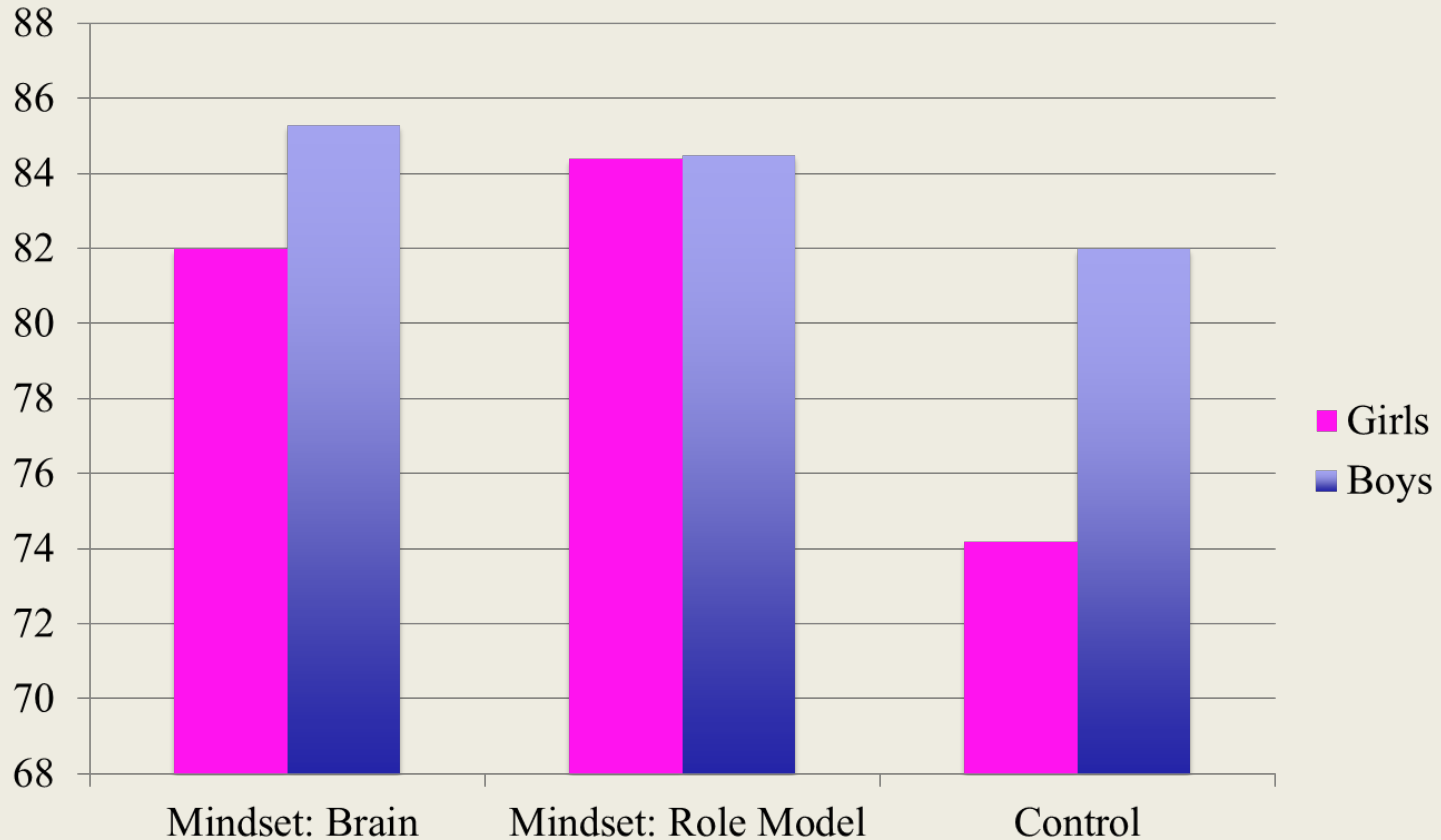
- Method: mentoring study; attitude change
- Intervention/Mindset Conditions:
 - Malleability of intelligence condition
 - Role models who stress the normality of early difficulty condition
 - Control group condition (drug abuse message)
- Measure: Texas Assessment of Academic Skills (TAAS)



7th Grade Reading TAAS--Latinos



7th Grade Math TAAS Score



Questions from Participants

1. Is it that intelligence is changeable or the Intelligence Quotient?
2. Are there differences between a research scientist and someone who has never applied themselves in terms of what their brains look like?
3. How easy is it to change students' beliefs about the role of effort in shaping their intelligence?
4. Other questions?



Important Points to Remember

Telling students is not enough



Important Points to Remember

Teacher Behavior Needs to Reinforce the
Growth Mindset





How to Reinforce the Growth Mindset

- Imagine that every child is on the verge of an intellectual growth spurt
- Use growth oriented language
 - “my goodness, I think you may have just grown a dendrite!”
 - “Tomorrow, you’ll do better!”