Implicit Bias

8th Annual Susan Neibur Women in Planetary Science Event, LPSC

Meagan Thompson

23 March 2016

What is implicit bias?

- Implicit bias refers to the attitudes or stereotypes that affect our understanding, actions, and decisions in an unconscious manner
- These biases, which encompass both favorable and unfavorable assessments, are activated involuntarily and without an individual's awareness or intentional control
- Reside deep in the subconscious – implicit biases are different from known biases that individuals may choose to conceal for the purposes of social and/or political correctness
- Implicit biases are not accessible through introspection

Key Characteristic of Implicit Bias

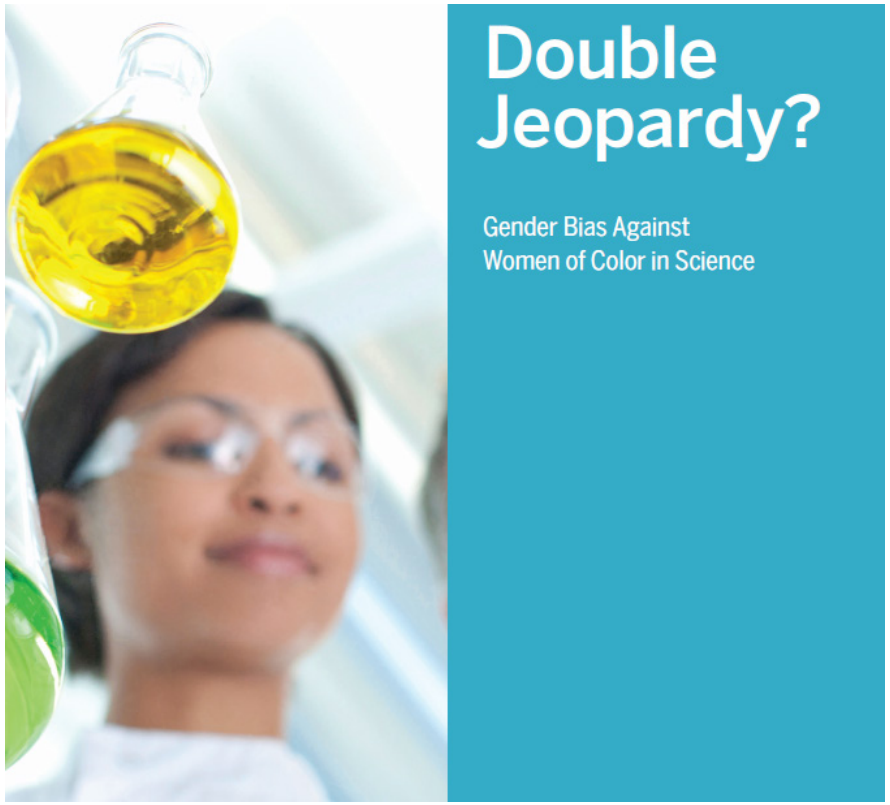
- Implicit biases are **pervasive**. Everyone possesses them, even people with avowed commitments to impartiality.
- Implicit and explicit biases are **related but distinct mental constructs**. They are not mutually exclusive and may even reinforce each other.
- The implicit associations we hold **do not necessarily align with our declared beliefs** or even reflect stances we would explicitly endorse.
- We generally tend to hold implicit biases that **favor our own ingroup**, though research has shown that we can still hold implicit biases against our ingroup.
- Implicit biases are **malleable**. Our brains are incredibly complex, and the implicit associations that we have formed can be gradually unlearned through a variety of debiasing techniques.

Wait, we're smart, we're scientists - surely we're not part of the problem…

"We found that none of the bias blind spots were attenuated by measures of cognitive sophistication such as cognitive ability or thinking dispositions related to bias. If anything, a larger bias blind spot was associated with higher cognitive ability."

Richard F. West and Russell J. Meserve, James Madison University; Keith E. Stanovitch, University of Toronto, APA Journal 2012

Tools for Change – Boosting the Retention of Women in the STEM pipeline



UC Hastings College of Law – 2014

- Women have to provide more evidence of competence
- Walking the tightrope
  - 34% felt pushed to take on dead-end traditional female roles
  - 55% reported backlash for stereotypical masculine behaviors
- Maternal wall – women lose their competence when they have children
  - 64% reported flexibility stigma
- Gender bias fuels conflict between women
  - 41% of women surveyed agreed that some women “don’t understand the level of commitment it takes to be a scientist”

Science faculty's subtle gender biases favor male students

Corinne A. Moss-Racusin[a,b], John F. Dovidio[b], Victoria L. Brescoll[c], Mark J. Graham[a,d], and Jo Handelsman[a,1]

[a]Department of Molecular, Cellular and Developmental Biology, [b]Department of Psychology, [c]School of Management, and [d]Department of Psychiatry, Yale University, New Haven, CT 06520

Edited* by Shirley Tilghman, Princeton University, Princeton, NJ, and approved August 21, 2012 (received for review July 2, 2012)

Despite efforts to recruit and retain more women, a stark gender disparity persists within academic science. Abundant research has demonstrated gender bias in many demographic groups, but has yet to experimentally investigate whether science faculty exhibit a bias against female students that could contribute to the gender disparity in academic science. In a randomized double-blind study (n = 127), science faculty from research-intensive universities rated the application materials of a student—who was randomly assigned either a male or female name—for a laboratory manager position. Faculty participants rated the male applicant as significantly more competent and hireable than the (identical) female applicant. These participants also selected a higher starting salary and offered more career mentoring to the male applicant. The gender of the faculty participants did not affect responses, such that female and male faculty were equally likely to exhibit bias against the female student. Mediation analyses indicated that the female student was less likely to be hired because she was viewed as less competent. We also assessed faculty participants' preexisting subtle bias against women using a standard instrument and found that preexisting subtle bias against women played a moderating role, such that subtle bias against women was associated with less support for the female student, but was unrelated to reactions to the male student. These results suggest that interventions addressing faculty gender bias might advance the goal of increasing the participation of women in science.

gender disparity in science (9–11), and that it "is not caused by discrimination in these domains" (10). This assertion has received substantial attention and generated significant debate among the scientific community, leading some to conclude that gender discrimination indeed does not exist nor contribute to the gender disparity within academic science (e.g., refs. 12 and 13).

Despite this controversy, experimental research testing for the presence and magnitude of gender discrimination in the biological and physical sciences has yet to be conducted. Although acknowledging that various lifestyle choices likely contribute to the gender imbalance in science (9–11), the present research is unique in investigating whether faculty gender bias exists within academic biological and physical sciences, and whether it might exert an independent effect on the gender disparity as students progress through the pipeline to careers in science. Specifically, the present experiment examined whether, given an equally qualified male and female student, science faculty members would show preferential evaluation and treatment of the male student to work in their laboratory. Although the correlational and related laboratory studies discussed below suggest that such bias is likely (contrary to previous arguments) (9–11), we know of no previous experiments that have tested for faculty bias against female students within academic science.

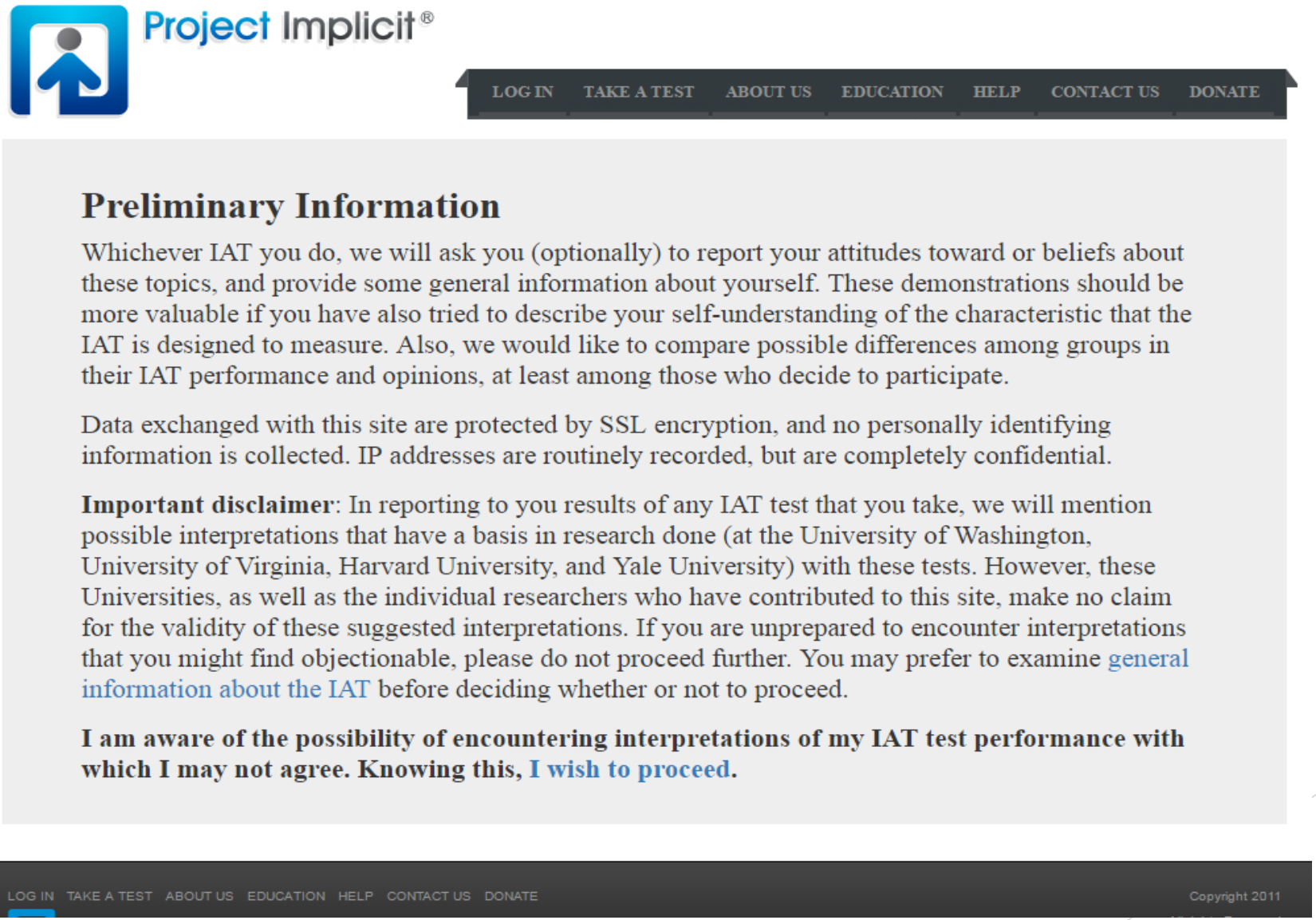
If faculty express gender biases, we are not suggesting that these biases are intentional or stem from a conscious desire to

Okay, we're not "better than that." Now what?

How to mitigate your personal biases

1. **Recognize and accept that you have biases. Remove guilt from the equation and take responsibility.**

https://implicit.harvard.edu/implicit/index.jsp



How to mitigate your personal biases

1. Recognize and accept that you have biases. Remove guilt from the equation and take responsibility.
2. **Develop the capacity to use a flashlight on yourself.**

Notice your “gut” reactions

- Are there certain things or people that trigger you into acting on your internal biases?
- Are there circumstances where you feel anxious or uncomfortable?
- Are there ways of being or group dynamics that cause you to default to snap judgements?

How to mitigate your personal biases

1. Recognize and accept that you have biases. Remove guilt from the equation and take responsibility.
2. Develop the capacity to use a flashlight on yourself.
3. **Practice “constructive uncertainty.”**

“Freedom is the capacity to pause between stimulus and response.” – Rollo May

P – pay attention to what is happening beneath your judgement or reaction

A – acknowledge your own reaction and assess where it’s coming from

U – understand other potential reactions

S – select the most empowering response

E – execute that selection

How to mitigate your personal biases

1. Recognize and accept that you have biases. Remove guilt from the equation and take responsibility.
2. Develop the capacity to use a flashlight on yourself.
3. Practice “constructive uncertainty.”
4. **Explore awkwardness and discomfort.**

How to mitigate your personal biases

1. Recognize and accept that you have biases. Remove guilt from the equation and take responsibility.
2. Develop the capacity to use a flashlight on yourself.
3. Practice “constructive uncertainty.”
4. Explore awkwardness and discomfort.
5. **Engage with people you consider to be “other” and expose yourself to exemplars from that group.**

How to mitigate your personal biases

1. Recognize and accept that you have biases. Remove guilt from the equation and take responsibility.
2. Develop the capacity to use a flashlight on yourself.
3. Practice “constructive uncertainty.”
4. Explore awkwardness and discomfort.
5. Engage with people you consider to be “other” and expose yourself to exemplars from that group.
6. **Give feedback.**

Questions
Comments
Suggestions

Resources

- Howard Ross: "Everyday Bias: Identifying and Navigating Unconscious Judgments“ https://www.youtube.com/watch?v=v01SxXui9XQ&t=2995s
- Kirwan Institute for the Study of Race and Ethnicity http://kirwaninstitute.osu.edu/
- Project Implicit https://implicit.harvard.edu/implicit/
- Joan Schmelz “Why so Few? Unconscious Bias I” http://womeninastronomy.blogspot.com/2015/07/why-so-few-unconscious-bias-i.html
- Stanford Encyclopedia of Philosophy http://plato.stanford.edu/entries/implicit-bias/
- Science faculty’s subtle gender biases favor male students http://www.pnas.org/content/109/41/16474.abstract
- Double Jeopardy? Gender Bias Against Women of Color in Science http://www.uchastings.edu/news/articles/2015/01/double-jeopardy-report.pdf