What Would You Do or Say? Interrupting Bias in Academic Settings

Dr. Gretchen Achenbach, University of Virginia

Gretchen Achenbach is a research scientist in the Department of Engineering and Society at the University of Virginia, and at the National Center for Women and Information Technology (NCWIT). She earned her Ph.D. in Psychology from the University of Wisconsin-Madison. Her interests focus on science communication and gender issues in computing and technology.

CoNECD

April, 2019
Crystal City

**What Would You Say or Do?
Interrupting Bias in
Academic Settings**

Gretchen Achenbach, Ph.D.
University of Virginia
and
National Center for Women & Information
Technology (NCWIT)

Lifetime Partner: Apple
Strategic Partners: National Science Foundation,
Microsoft, Bank of America, Google, Intel, Merck, and AT&T
Investment Partners: Avaya, Pfizer, Bloomberg,
Hewlett Packard Enterprise, Qualcomm, and Facebook

The National Center for Women and Information Technology (NCWIT) is a nonprofit community of more than 1,100 member organizations, working to increase girls' and women's meaningful participation in computing. Through our programs, campaigns, and research based resources we equip change leaders to recruit, retain, and advance women from K-12 and higher education through industry and entrepreneurial careers.

Goal: Diverse and Inclusive Tech Culture

THINKING STYLES · LANGUAGE · ETHNICITY · RELIGION · PERSPECTIVES · EXPERIENCES · NATIONALITY · JOB LEVEL · RACE · CULTURE · SKILLS · GENDER · PHYSICAL ABILITIES · SEXUAL ORIENTATION · AGE

ncwit.org

Although NCWIT's focus is on women, our goal is systemic change – changing the systems or environments to be more inclusive for a diverse range of people, not changing people to better fit existing systems.

Today I'm going to introduce you to NCWIT's Interrupting Bias in Academic Settings resource. You'll have the opportunity to practice interrupting bias yourself. But just as importantly, you'll be trying out a resource that you can bring back to your own institution to help others become aware of, and practice, interrupting bias as well.

First a little background. Most of us here are probably aware that computing has a diversity problem…

(Degrees earned in 2016
National Center for Education Statistics (NCES) 2017 (CIP 11)
CRA Taulbee Survey 2016)

The Computing Workforce is:

26% — Women
5% — Asian women
3% — African American women
1% — Hispanic women
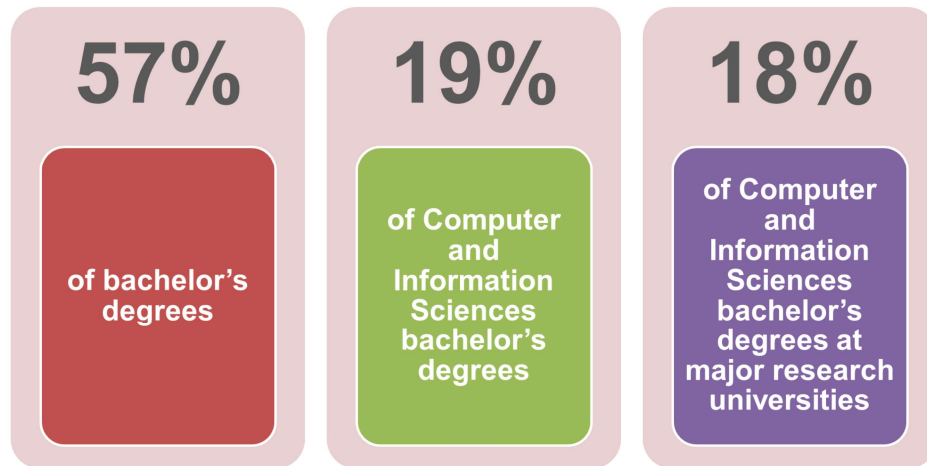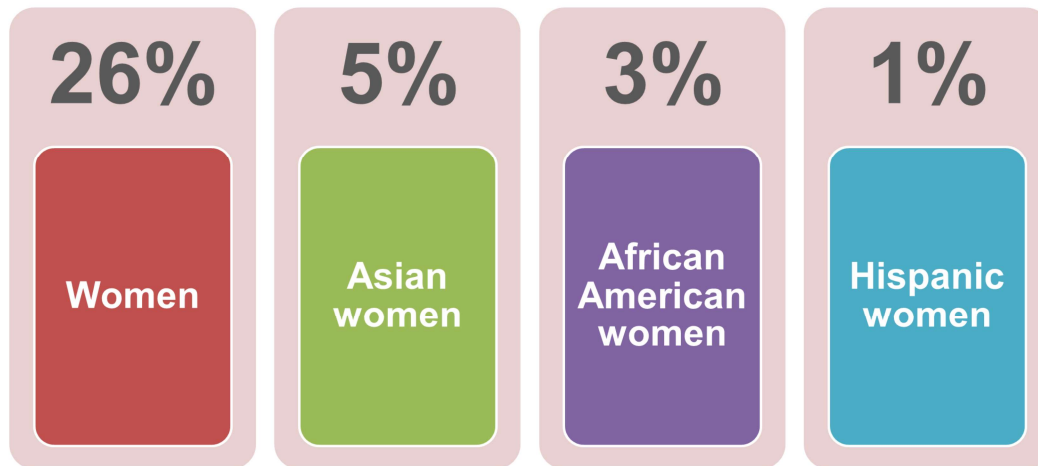
www.ncwit.org/resources/numbers#

ncwit.org

Women hold 57% of professional jobs overall, but only 26% of computing jobs.

(Department of Labor Bureau of Labor Statistics, Employed Persons by Detailed Occupation, Sex, Race, and Hispanic or Latino Ethnicity 2017)

Women:

Enhance innovation[1]

Expand the talent pool

Reflect the user base

Are missing out on high-quality, well-paying jobs

[1] www.ncwit.org/businesscase

ncwit.org

Why does the lack of women in tech matter?
Innovation - Having women on teams affects productivity, innovation, problem solving, collective intelligence of the team (see www.ncwit.org/businesscase for sources)

Increasing women's participation could increase the talent pool available to fill the 3.5 million computing related job openings expected over the next 10 yrs
(see www.ncwit.org/resources/numbers#;
Department of Labor Bureau of Labor Statistics, Employment Projections
(Occupational Category: 15-1100)

Increasing diversity would ensure that those creating technology more closely resemble the people using technology

It's also a social equity issue because women are missing out on high-quality, well-paying jobs.
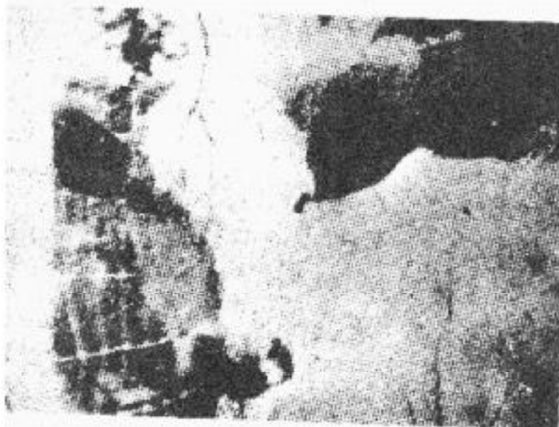
What do you see?
Now look for a cow
Most people don't see the cow on their own, and many still don't see it even after being told
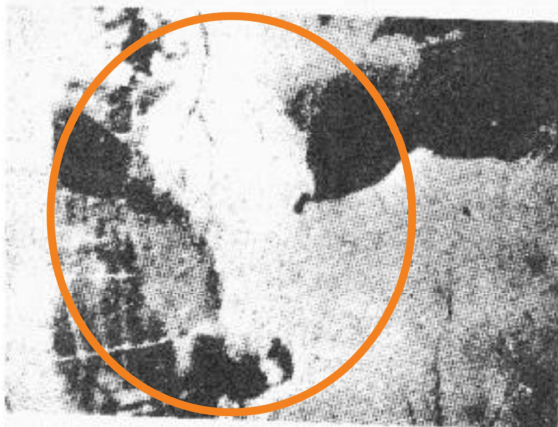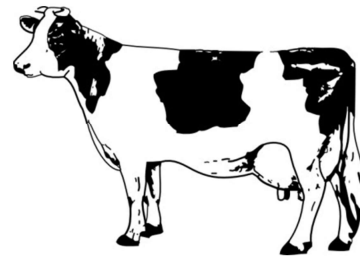
Do you see the cow now?
Most people have trouble seeing the cow because it doesn't match their schema, or mental representation, of what a cow looks like

Unconscious Bias

We all have shortcuts or "schemas" that help us make sense of the world. But our shortcuts sometimes make us misinterpret or miss things.
That's **unconscious bias**.

ncwit.org

We use schemas, or shortcuts, to help us make sense of information. Schemas are useful because they enable us to make quick, automatic judgements about things. Unfortunately, we often overlook things that don't fit our schemas. That's unconscious bias.

Society is biased about gender and technology

"I'm only creating the design ideas," Barbie says, laughing. "I'll need Steven's and Brian's help to turn it into a real game!"

ncwit.org

You're probably already aware that society is biased about gender and technology. The picture is from the Barbie book "I can be a Computer Engineer," which was part of a series intended to expose girls a variety of careers.
In this book, Barbie first downplays her role in her school computer project, then messes up her sister's computer, then has to take the computer to the boys to get it fixed.

S. Marenco, *I can be an Actress/ I can be a Computer Engineer (Barbie)*. 2013. Random House Books for Young Readers, 2013.

Hiring

Professors evaluated applicant "John" or "Jennifer" for lab manager

John was:
- **Given better assessments**
- **More likely to be hired**
- **Offered a larger starting salary than Jennifer**

Bias had no relation to the professors' age, sex, field, or tenure status
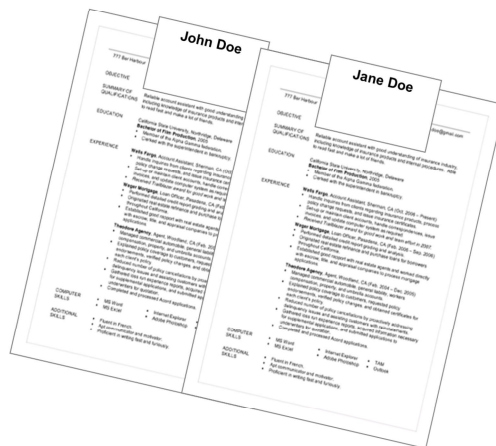
C.A. Moss-Racusin et al., "Science faculty's subtle gender biases favor male students," *Proceedings of the National Academy of Sciences*, vol. 109: pp. 16474-16479, 2012.

ncwit.org

Here's an example of why unconscious bias matters. Professors in biology, chemistry, and physics at 6 major universities were sent an application for a laboratory manager position. All professors (127) received the same one-page summary. Half the time the applicant's name was John and the other half Jennifer. On a scale of 1 to 7, professors gave John an average score of 4 for competence and Jennifer 3.3. They would be more likely to hire John, and they would offer him more money.

The bias had no relation to the professors' age, sex, teaching field or tenure status. (so simply being a women doesn't mean you're not gender-biased)

Recommendation Letters

Recommendations for clinical faculty positions at a medical school:

Women's letters more often:
• shorter
• contain *doubt raisers*: "It appears that her health is stable…"
• focus on interpersonal skills
• highlight teaching
• describe as hard worker

Men's letters more often:
• focus on ability and skills
• highlight research
• better aligned with critical job requirements

F. Trix & C. Psenka, "Exploring the color of glass: Letters of recommendation for
female and male medical faculty," *Discourse and Society*, vol. 14, pp. 191-220, 2003.

ncwit.org

This study analyzed 300 actual letters of recommendation for clinical faculty
positions at a medical school (positions where research is valued)

Micro-aggressions

"Actually, Sofia has a good idea."

"Oops, I forgot to cc her on the email."

"No, I'm pretty sure Jane would not have had the idea to use a link algorithm."

"Dude, let's talk about it over a beer!"

ncwit.org

It's obvious from the previous two examples that unconscious bias can have major implications for who gets into a particular job or career. But unconscious bias also results in micro-inequities or micro-aggressions– small slights and jabs that erode belonging and confidence and contribute to an unwelcoming environment for women.

Often these are unintentional and not meant to cause harm.

Other examples: Assigning tasks based on gender roles – women to take notes or take care of the food
Expecting someone to represent their group – "tell us what women think of this,"

What's going on?

Technical women aren't broken

Technical men aren't the enemy

The problem is societal biases we all share

We can take action together

It's important to avoid the temptation to try to "fix" one group, or blame another group, because the real problem is the societal biases that we all share.
We need to take action to change systems – for example, implementing practices and policies that minimize bias in areas like hiring, performance reviews, and promotions, that promote inclusive departmental or workplace cultures, and that treat issues like work-life integration as people issues, not women's issues.
However, there is also value in recognizing and addressing instances of biases we observe in our everyday interactions.

Interrupting Bias in Academic Settings
What would you say or do?

You overhear a faculty member complain that Janelle is too abrasive. Nobody is going to want to work with her unless she learns to tone it down.	An underrepresented student comes to you and complains that some students have made general demeaning comments related to gender and/or other groups during lab. The student is uncomfortable but doesn't want you to intervene directly as people might find out who reported it.	When introduced to a female professor, a student looks her up and down and says she doesn't "look like" a computer science professor.
In the capstone course, a student group decides to "divide and conquer." They suggest that the lone woman in the group take the role of communicating with the client.	In lecture, the instructor announces to the class that he is going to cosmetic and fashion examples to create an inclusive climate for women.	During a meeting, a faculty member says, "Yeah, we really do need to bring in more female students and faculty. They just bring a different perspective and skill set. And hey, it would make this a more civilized place – we men just behave better when women are around."
You recommend a student for a research experience with one of your colleagues, and get the response, "I'm not sure she's the right fit. But I think she'd make a great TA."	This class typically includes spirited, sometimes hostile, discussion and debate. The instructor notices that Samantha is consistently quiet during these discussions and has suggested that maybe she's just not cut out for CS.	Students have heard about a push to recruit more female students. You hear a male student encourage a female student by saying, "You'll definitely get that internship, since you're a girl."

www.ncwit.org/biasacademic

ncwit.org

Interrupting bias can be challenging, but it's easier if you've practiced.
"Interrupting Bias in Academic Settings" is a set of scenarios geared towards a college or university setting, that you can work through on your own or in a group. You to modify the scenarios to better fit your own situation, or, to create your own scenarios.

Tips for Participants

Should I intervene?

What could I say?

www.ncwit.org/biasacademic

The Interrupting Bias resource includes a page of questions and considerations for participants.

Should you intervene? Ask yourself:
- Is it bias?
- Should I say something now? Later? Not at all?
- How does my position, my status, or my own gender, racial, or other identity affect my options?

What could you say? Be sure to avoid accusations. Some options include:
- Ask a question – "what do you mean by that?"
- Arouse dissonance "That's not something I'd expect you to say, you've always been very supportive of women in computing"
- "Pivot" – make the person aware of their mistake without directly confronting it
- Use humor (maybe… but be cautious)

Resources

Tips for preparing for and facilitating a discussion

Suggested readings

Unconscious bias video

Unconscious bias slides

www.ncwit.org/biasacademic

TIPS FOR FACILITATING DISCUSSION SESSIONS

SUGGESTED TIME:
An hour minimum; 90 minutes even better for more reflective, in-depth conversation.

SUGGESTED GROUP SIZE:
10-15 is ideal, but 20-25 people will also work. Best to allow more time the bigger the group.

BACKGROUND/SETUP (SUGGESTED 15-20 MINUTES):
At the beginning of the session, use the attached slides and/or this interactive video to help explain why bias busting matters and to provide attendees with introductory information on how bias works. You might also have attendees read one or more of the following short articles before the session.
- Rise Above the Hate-Filled Banter: Realize, Recognize, and Respond to Bias in Our Systems and Ourselves
- Silent Technical Privilege
- Consciously Overcoming Unconscious Bias

BIAS-BUSTING PRACTICE (SUGGESTED 15 MINUTES):
Distribute the scenario grid and the attached "Questions and Considerations for Bias-Busting Discussions." Have attendees break into groups of 3-5 people, choose a scenario and discuss different ways they might intervene. Have them record possible actions they discuss and any questions they may have.

WHOLE GROUP DISCUSSION (SUGGESTED 30 MINUTES):
Bring small groups back together as a whole group to discuss the possible solutions and remaining questions they have. If more than one group discussed the same scenario, it's helpful for them to report out at same time with one group starting and another adding on or chiming in. Others not in those groups should also chime in with their own questions or additional ideas for action.

WRAP-UP:
Thank everyone for participating. Give them the online link to these grids in case they want to use them in other contexts.

ncwit.org

Why not help your students, or colleagues, become bias interrupters as well?

These supporting resources are described in your handout but you'll need to go to NCWIT's website to get the actual links
Resources include:
Tips for facilitating your own discussion
Suggested advance readings for participants
A video and a slide deck that can be used to provide an introduction to unconscious bias.
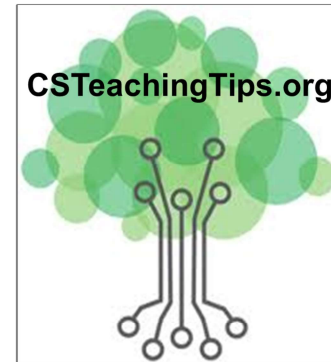You could use one, or both to set the stage for doing the activity.

Related Resources

www.ncwit.org/biasindustry   www.ncwit.org/criticallistening   http://csteachingtips.org/tip-sheets

ncwit.org

Related resources:
The scenarios in the version of "Interrupting Bias" we'll look at today focus on academic settings. NCWIT's "Interrupting Bias in Industry Settings" contains scenarios you might find in a corporate workplace. Remember that with either version, we encourage you to create your own scenarios as well.

NCWIT's "Critical Listening Guide" explains what is wrong with some of the statements you may hear about women or underrepresented groups in computing

CSTeachingTips.org - Colleen Lewis at Harvey Mudd has developed a scenario-based game focused on inclusive teaching – you can download scenario cards (which include suggested responses) here http://csteachingtips.org/tip-sheets

Your Turn

1. Pick a scenario, or create your own

2. Generate two ideas for dealing with, or intervening in, the scenario

3. Jot down any questions

ncwit.org

In groups of 3-5, pick a scenario
In about 10 minutes, we'll come back together and discuss with the larger group.

(Creative Commons Image: Mike Lietz)