Inclusive Pedagogy
CER Lunch-N-Learn

Karen Fleming, PhD
Professor of Biophysics, JHU
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Goals of the Inclusive Classroom

• Create a learning environment where everyone feels safe to express ideas and questions
• Multiple diverse questions, opinions are considered
• Student experiences of marginalization are minimized
Two (of many) Challenges

Instructor Unconscious Bias
&
Student Stereotype Threat
99.9999996% of our processing uses Unconscious Reasoning
Unconscious Bias Stems From Expectation Bias

In Social Psychology

Bias: An error in decision making
Expectation Bias is Grounded in Stereotypes

- Women not as good at math or spatial learning
- Hispanics and African Americans are lower achieving than Whites
- Hispanics, African Americans, Poor or Obese People are Lazy
- Male athlete as a “jock” (muscular but not smart)
- Asians have higher math abilities
- Blondes less intelligent than brunettes
Do Science Faculty Display Unconscious Bias?

?? Science Faculty ??

But....
We are rigorously trained to be objective!

The Study: Evaluation of a Potential Lab Manager
“Jo Handelsman Study”

Randomized, Double Blind Study ($n = 127$ Faculty)

Biology, Chemistry & Physics Professors

3 public & 3 private R-1 Institutions in the US
(Geographically diverse)

The Demographics on Faculty Participants Agree with National Averages

Mean age was 50.34 (SD = 12.60, range 29–78)
The Demographics on Faculty Participants Agree with National Averages

- Full: 60%
- Assistant: 18%
- Associate: 22%
- Physicists: 32%
- Chemists: 28%
- Biologists: 40%
Essence of the Application that Faculty Received

*Designed to reflect high but slightly ambiguous competence*

**Name:** Jennifer or John  
**Gender:** Female or Male  
**Ethnic Background:** Caucasian  
**Age:** 22

**Degree:** BS, May 2011 from xx University; **GPA:** 3.2

**GRE score:** 650 Verbal, 780 Quant

**Awards/honors:** President’s Service Award, Rotary Club College Scholarship

**Letters of recommendation:** 3 (2 from former faculty research supervisors, 1 from intro science professor), all supportive

**Future plans:** Apply to doctoral programs

Faculty received a survey and were tasked with Evaluation Metrics:

Rank a potential Lab Manager Candidate for Competency Hireability Mentoring

Both Men *and* Women Faculty Show Gender Bias Favoring Male Applicants

Faculty were asked to pick a starting salary

- ($15,000)
- ($20,000)
- ($25,000)
- ($30,000)
- ($35,000)
- ($40,000)
- ($45,000)
- ($50,000)

Both Men *and* Women Faculty Offered Equally Qualified Female Candidates Lower Salaries than their Male Counterparts

One Possible Explanation: Male Stereotypes meet the Expectation for the Lab Manager Position

Dr. Shelley Correll, Professor of Sociology at Stanford University, Director of the Michelle R. Clayman Institute for Gender Research, From Education video at LeanIn.org
Expectation Bias ➔ Different Standard

When a man performs well in a *traditional male-type* task, this performance is what we expect.

When a woman performs well in a *traditional male-type* task, this performance conflicts with stereotypic expectations.

As a result, her performance is really scrutinized, and women are required to repeatedly prove their competence.

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Check your Bias

https://implicit.harvard.edu/implicit/

Gender & Science; Gender & Career; Race ('Black – White'); Age; Weight; Skin-tone; Sexuality
Stereotype Threat

- Performance in academic contexts can be harmed by the awareness that one’s behavior might be viewed through the lens of stereotypes.

- Culturally-shared stereotypes suggesting poor performance of certain groups can disrupt performance of an individual who identifies with that group.
Classic “Stereotype Threat” Study

114 undergraduate students volunteered for the study from Stanford
They were required to provide their verbal SAT scores (and presumably their race)
They take a test composed of Verbal GRE questions

- Diagnostic
  Test is presented as a measure of intrinsic ability

- Non-Diagnostic
  Test is presented as a laboratory tool for studying problem solving

Invoking Stereotype Threat Affects Performance in an *Evaluation* Setting

“Race-Priming” Students Affects Performance in an Evaluation Setting

How To Be More Inclusive?

Establish a Growth Mindset

Set clear, equal and high but achievable expectations for all students

Include material created by people of different backgrounds

Pay attention to group dynamics (especially compositions of small groups)
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