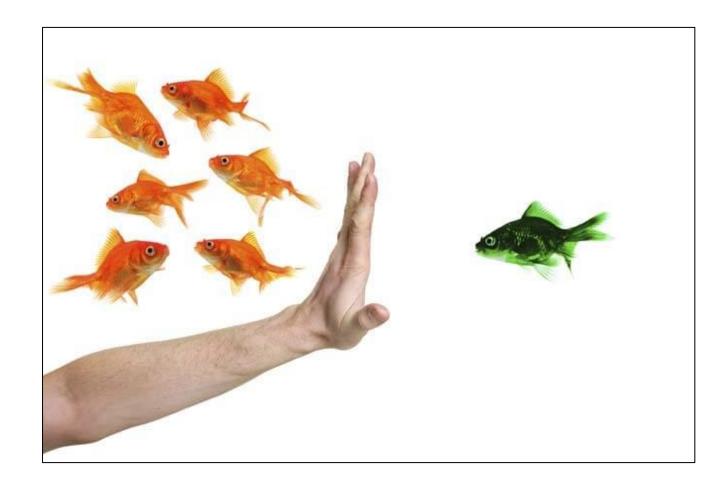
Diversity, Equality & Unconscious Bias in Academia

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Weizmann Institute of Science



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Gender and Physics Research

Personal background



- Head of Diversity and Inclusion office,
 Weizmann Institute of Science, Israel
- PhD in Sociology and Gender Studies (TLV University, University of Maryland)
- Head of INSPIRE CoP advancing diversity in European Universities
- Former Chair, GENERA Network promoting gender equality in physics in Europe

Focus of my talk

- ✓ What is unconscious bias (UCB)?
- ✓ What is the impact of UCB in academia?
- ✓ What can we do about it?





Large Group Exercise

Unconscious Bias

Unconscious Bias Explained

bias | The Royal Society



YouTube 🔼

https://youtu.be/dVp9Z5k0dEE

Unconscious Bias DEFINITION

- ✓ Unconscious (or implicit) biases, unlike conscious biases, are the views and opinions we are unaware of.
- ✓ They are automatically activated.
- ✓ They affect our everyday behaviour and decision making.



Count words "RED", version 1

Count the words "RED", version 1

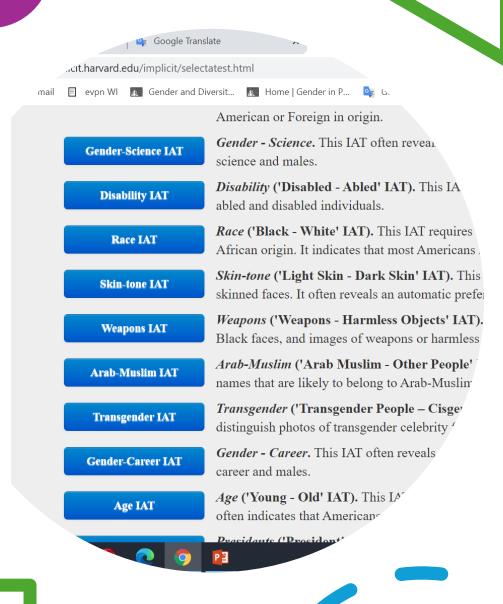
RED	GREEN	BLUE		PINK
ORANGE	BLUE	GREEN	BLUE	WHITE
GREEN		ORANGE	BLUE	WHITE
BROWN	RED	BLUE		GREEN
PINK		GREEN	BLUE	RED

Count the words "RED", version 2

RED		BLUE	YELLOW	PINK	
ORANGE	BLUE		BLUE	WHITE	
GREEN	YELLOW	ORANGE	BLUE	WHITE	
BROWN		BLUE	YELLOW	GREEN	
PINK	YELLOW	GREEN	BLUE	RED	

Is it easier to identify "RED" when it is in the color we expect?

Is it easier to identify a scientist when the scientist's gender corresponds to our expectation?



Take a test:

THE HARVARD IMPLICIT ASSOCIATION TEST

B.I.E.N.D

Similarity Bias

- We prefer to surround ourselves with people we feel are similar to us
- We are more open to hiring individuals we see parts of ourselves in

Gender Bias

Judging individuals based on their gender rather than their abilities, qualifications, or personal characteristics





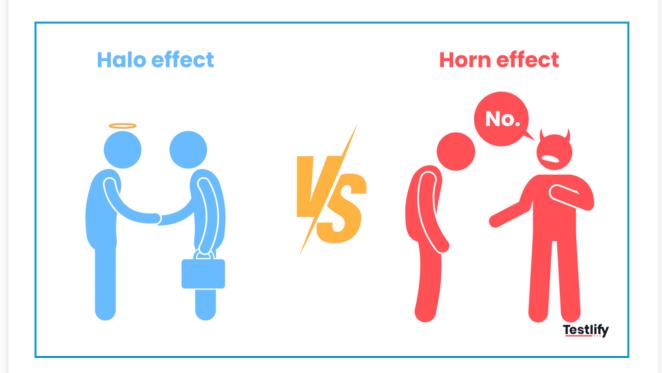
Performance Bias

Those in "dominance" or "in groups" are judged by potential, while those in "out groups" are judged by accomplishments



Beauty Bias

We tend to think that the most handsome individual will be the most successful



Halo effect

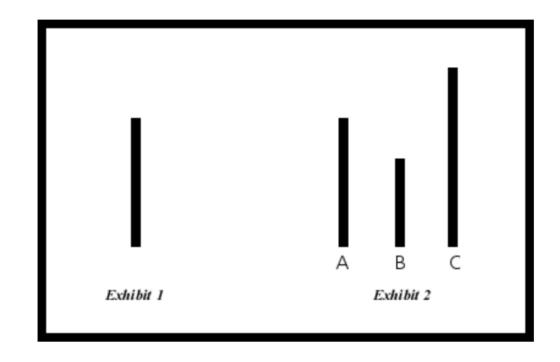
When we notice one great thing about a person – and let the glow of that significant thing affect our opinions of everything else about them

Horns effect

When noticing one negative trait in a person makes us view everything else about them more negatively

Conformity Bias

is caused by group peer pressure



Conformity bias

Who are we biased against?



People who aren't like us



Diversity groups vary

In most cases, we focus on minorities and groups that are underrepresented in higher education.







Yonatan Schweiger, YWS Diversity program

Meklit Berhe, YWS Diversity program

Jamela Abu Ayada, YWS Diversity program

How can our biases impact academia?





The impact of UCB on women in academia



Working conditions

Pay gap Resource gap Part time positions Precarious contracts



Recruitment

Gendered advertising of position
Assessment methods
Selection committees
Recommendation



Career advancement processes

Assessment methods Promotion committees Recommendation

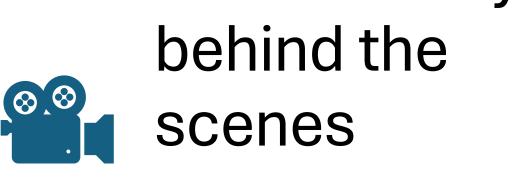


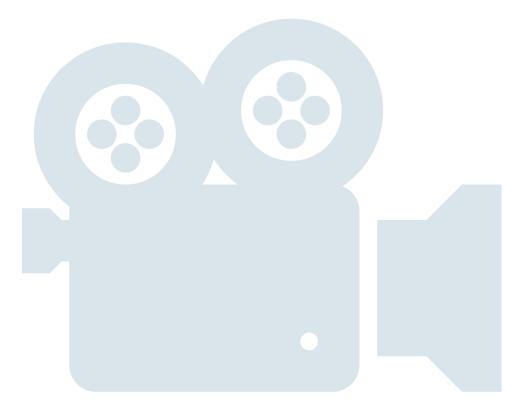
Research funding

Gender bias in funding rates



Let me take you





The impact of UCB on women in academia

- √ "Implicit Bias in Academia" (2018) LERU report
- ✓ "Does Gender Bias Still Affect Women in Science"
 (2019) Rachel Roper (in the USA)

Gender Bias by Math Teachers Has a Long-Term Effect

- ✓ Students were studied from **sixth grade** through the end of **high school**.
- ✓ On 6th grade they were given two exams, one graded anonymously and another by teachers who knew their names.
- ✓ In math the girls outscored the boys on an exam graded anonymously but the boys outscored the girls when the teachers new their names!
- ✓ The researcher find it had a long-term effects on their attitudes toward math at high school.

Bias in Professors Response to Students at The Gateway

- 6,500 professors, from 259 top American universities, from all disciplines, responded to students' email seeking advice before applying for PhD studies.
- Names of students were randomly assigned to signal gender and race.
- Professors were more responsive to:
 - 1. White male
 - 2. White female
 - 3. Black
 - 4. Hispanic
 - 5. Indian or Chinese

Recommendation Letters are Gender Biased

1,224 recommendation letters, submitted by recommenders from **54 countries**, for **postdoctoral** fellowships in the geosciences over the **period 2007–2012**.

✓ Female applicants are only half as likely to receive excellent letters.

Letters for men



- Longer
- language:
 - > Brilliant
 - > Trailblazer
 - > One of the best students I ever had

Letters for women



- Shorter
- Language:
 - > Solid scientist
 - Doing good work
- More references to personal life
- More "doubt raisers"

• Dutt, Pfaff at al., Nature Géoscience (2016); Other research: Trix & Psenka (2003) Exploring the color of glass: letters of recommendation for female and male medical. Discoures & Society, Vol 14(2), 191-220. Ross et al. (2017).

Gender Bias in Academic Journal Review

- Double-blind review was introduced by the journal "Behavioral Ecology" in 2001.
- This brought to a **significant increase of 7.9%** in female first-authored papers.



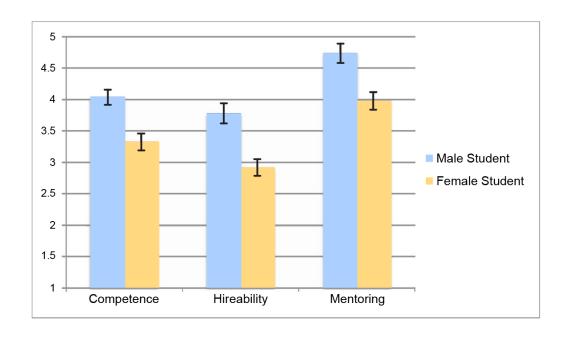
Science faculty's subtle gender biases favor male students

A sample of biology, chemistry, and physics professors (n = 127) evaluated the application of an undergraduate science student for a - laboratory manager position.

Female - Jennifer Male - John

Male applicants were rated as significantly more competent and hirable

Offered them higher salary



What can we do about it?

Gender equality and diversity initiatives on campus





WIS Diversity and Inclusion Office

A proactive approach to equal opportunity and diversity

Training scientists for fair and bias-free admissions process



Creating a tool to assist scientists in writing a fair recommendation letters.







Programs to increase diversity in student enrollment

Unconscious bias training for Pls

How do WIS women scientists, experience unconscious bias in our daily scientific life?



https://www.dropbox.com/s/6aqdelm80v699vn/unconscious bias.mp4?dl=0

Ben Wishlizky, Director



The Numbers

200%

The number of Arab graduate students increased by 200% in five years.

50-70%

Most of the YWS student's who apply for WIS are accepted to the MSc program, vary by year.

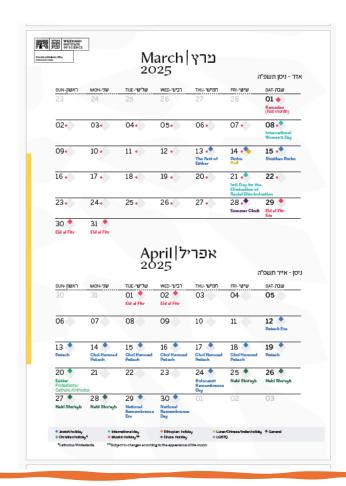
Few of them have already continue to PhD. at WIS.



Supporting Minority Groups on Campus



Honoring diverse traditions



Diversity Awareness Calander



LGBTQ association at WIS

https://www.genera-network.eu/

Promoting Gender Equality in Physics in Europe: The GENERA Network



We should all step up!

- Recognize and Challenge Bias Educate yourself, speak up against stereotypes, and ensure women's contributions are valued.
- Amplify Women's Voices Support female classmates in discussions and credit their ideas.
- **Promote Equal Collaboration** Avoid gendered task division in group work and share opportunities.
- Engage in Inclusivity Efforts Attend diversity events, advocate for fair representation.
- Call Out Discrimination Speak up against sexism and harassment, fostering a respectful environment.

