

Dealing with implicit bias

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WASA/AWSP/WSSDA EQUITY CONFERENCE

**DoubleTree SeaTac
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Outline

1. Modern psychology's evolution

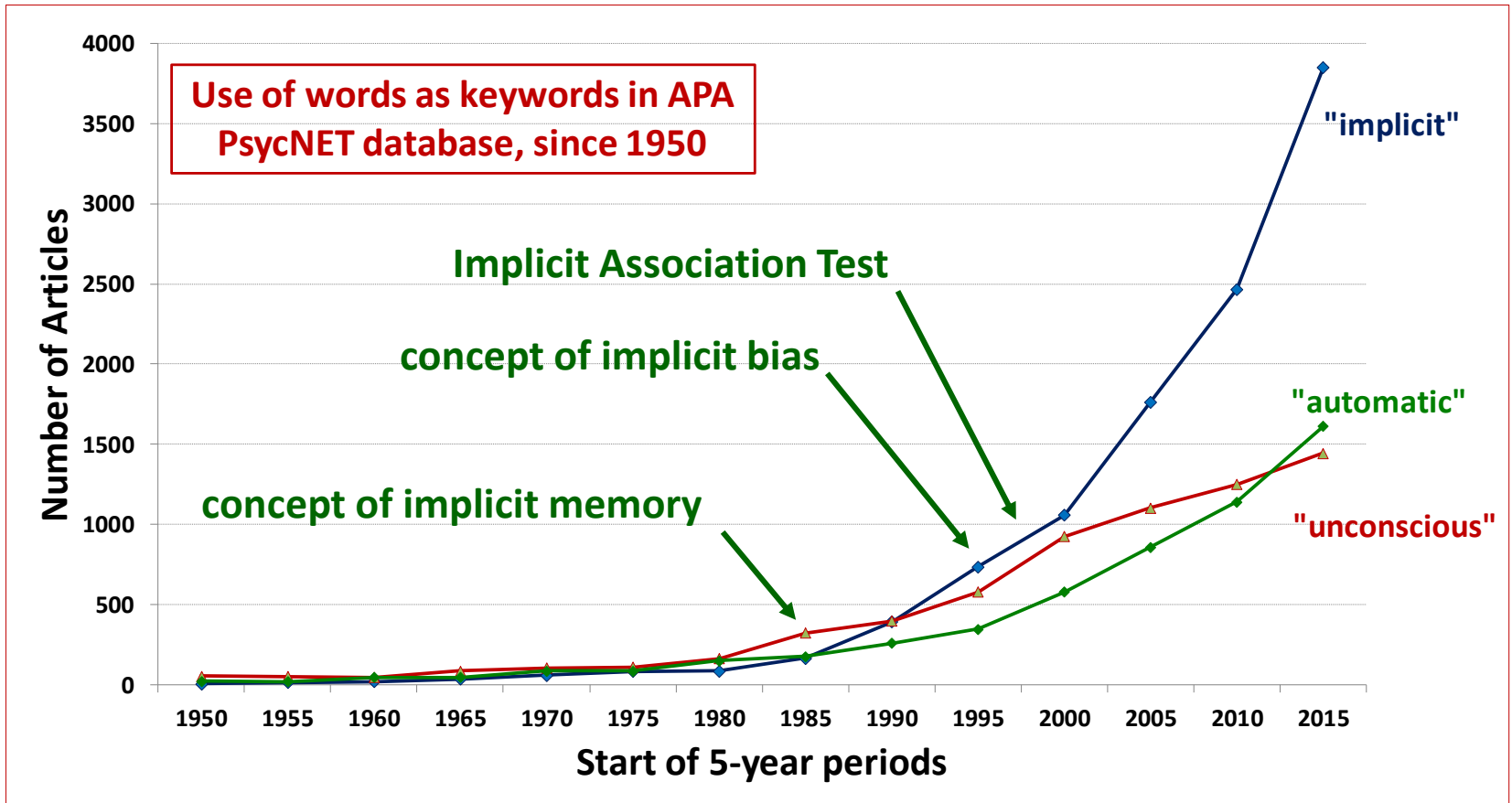
2. What is implicit bias?

3. Dealing with implicit bias

Outline

1. Modern psychology's evolution

Psychology's (r)evolution



A central idea of the (r)evolution

- The conscious mind is obliged to use what automatic processes provide to it
 - This becomes the basis for conscious perception, thought, and judgment
- This understanding *reverses* the more usual assumption that conscious thought is powerful enough to override automatic process

An illustration can help to explain this

the McGurk Effect

Watch the speaker while listening to him
What do you hear: Is it *ba* ? or *fa* ? or *va* ?



Lawrence Rosenblum

Professor of Psychology, Univ. of California, Riverside

A central idea of the (r)evolution

- The conscious mind is obliged to use what automatic processes provide to it
 - This becomes the basis for conscious perception, thought, and judgment
- This understanding *reverses* the more usual assumption that conscious thought is powerful enough to override automatic process
- This idea is central to the understanding of implicit bias

an important point — not easy to accept

**Concentrated mental effort to prevent the
conscious thought from being governed by the
unconscious (automatic) thought**

DOES NOT HELP

What does conscious cognition do?

conscious =? in control

OR

conscious =? controlled

Lessons from perceptual illusions

- until an illusion is explained, you don't know how it's happening
 - you don't know that it's happening
- knowing one illusion does not enable you to identify other illusions or to avoid experiencing them
- effective avoidance requires removing the context that causes the illusion

Lessons from perceptual illusions (cont.)

Conscious perception and judgment are shaped by processes that operate automatically, outside of awareness

The result can be invalid judgments

The invalid judgments can be social judgments

Those invalid social judgments are implicit biases

Invalid social judgment: an example

the “male = virtuoso” illusion (a stereotype)

GOLDIN AND ROUSE: ORCHESTRATING IMPARTIALITY

THE AMERICAN ECONOMIC REVIEW

SEPTEMBER 2000

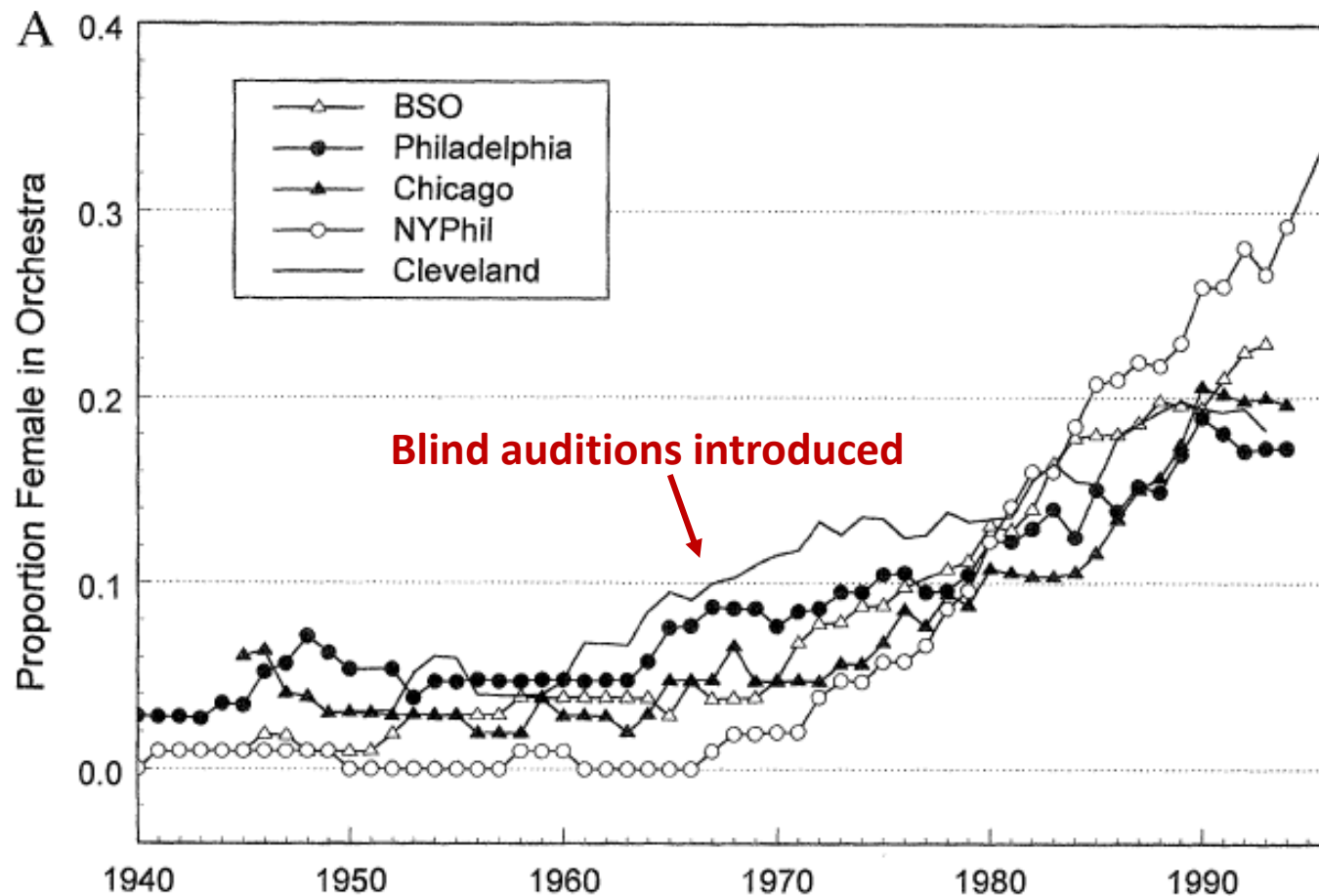


FIGURE 1. PROPORTION FEMALE IN NINE ORCHESTRAS, 1940 TO 1990's

Another takeaway

**Stereotypes cannot be managed by
conscious effort in 'real time'**

Outline

1. Modern psychology's evolution

2. What is implicit bias?

Definition of implicit bias

“attitudes or stereotypes that affect our understanding, decision-making, and behavior, without our even realizing it”

SOME MORE STEREOTYPES

- the male = leader illusion
- the wallet (in Black hand) = weapon illusion
- the White driver = good citizen illusion
- the _____ student = problem illusion

How to measure implicit biases

The Implicit Association Test (IAT)



Project Implicit®

<https://implicit.harvard.edu>

Demonstration

An IAT to measure a *gender–science stereotype*

An IAT has four categories

female

science

family

male

Janet

geology

kitchen

John

Mary

engineer

parents

Mike

Dinah

physics

babies

David

Helen

math

wedding

Harry

Sarah

science

family

Samuel

Teresa

experiment

home

Thomas

I'll need you to say “left” and “right”

PLEASE: Everyone participate

Loudness is important

Speed is requested

Ignore errors – just keep going

Start the IAT

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Addressing race or gender disparities in STEM

1. Race or gender disparities in STEM are:
 - (a) unintended by those who propagate them
 - (b) unnoticed by those who propagate them
 - (c) unnoticed also by those affected by them

2. There are two well understood causes:
 - (a) institutional bias
 - (b) implicit bias

3. Both are insidious: Their damaging effects on average are small on single occasions, but they accumulate

How to prevent these disparities from happening?

Some solutions have been suggested

One suggested solution



If our concern is implicit bias interfering
with a student's educational progress:

What's wrong with "Stop it" ?

We may not know what to stop

Even if we know what to stop, we may not
know how to stop doing it

And, even if we know what to stop and
have a method for stopping it, we may
have no way to know if we succeeded

Fortunately, there are a few other strategies

Strategy 1.

Eliminate the implicit biases

Problem:

**Research has not yet found a
method to eradicate implicit biases**

Strategy 1. Blinding

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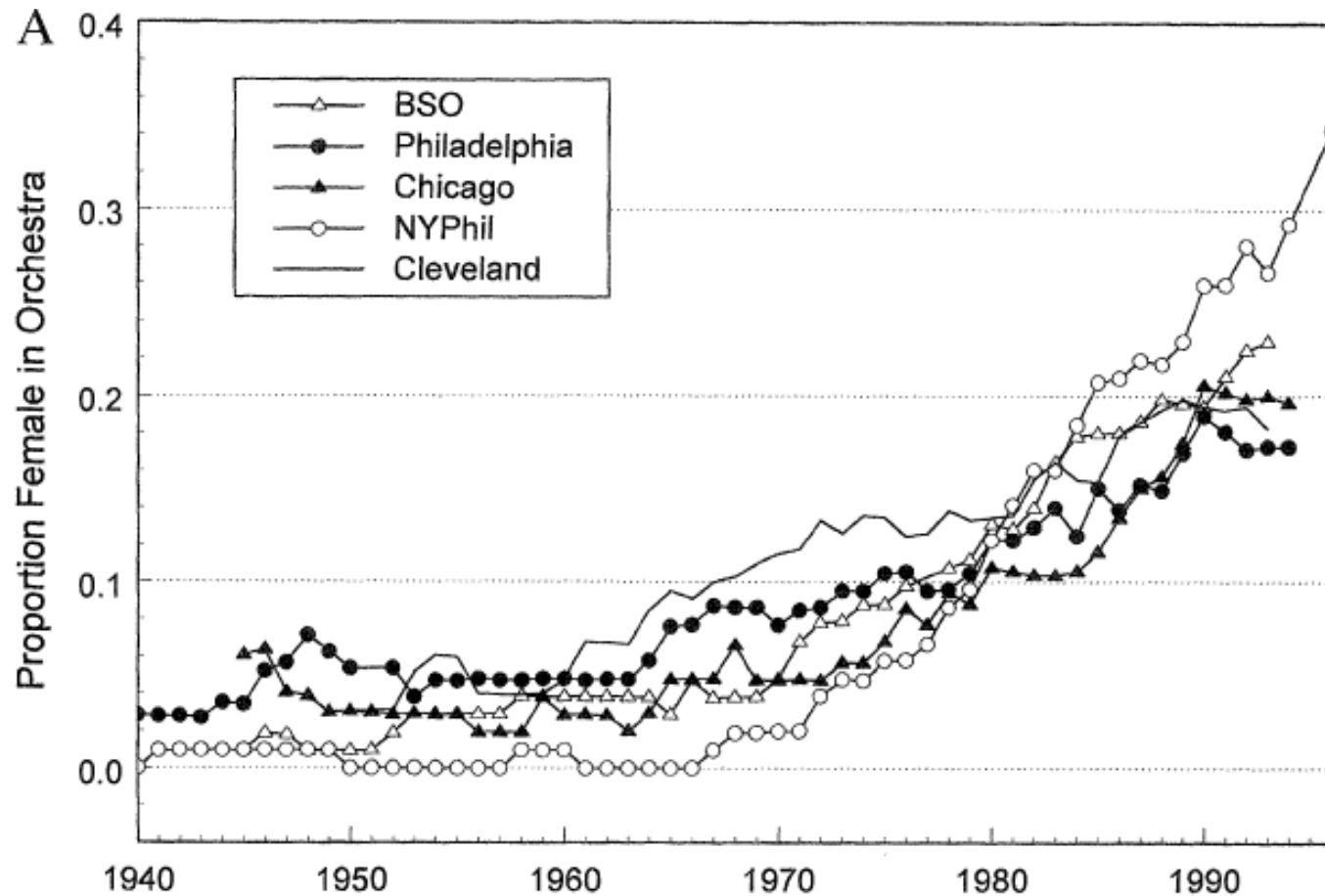


FIGURE 1. PROPORTION FEMALE IN NINE ORCHESTRAS, 1940 TO 1990's

A: THE "BIG FIVE"; B: FOUR OTHERS

Strategy 2. If blinding is not possible, eliminate *discretion*

But — remember that implicit biases cannot be managed by conscious effort in real time

This is a 'stop it' strategy

Strategy 2 restated:

Replace discretion

- Blinding only partially replaces discretion
- Find existing decision procedures (or develop new decision procedures) that allow discretion no role

Strategy 3. Document disparities

This should be done by those at the top

Corporate HR managers

Police chiefs

Judges

Medical directors

School superintendents & principals

**It's surprising how rarely people in
these positions get the data**

Why is it so difficult for large organizations to document disparities?

There is a (disturbing) 2-part answer

- 1. Those motivated to document discrimination are typically not located high enough in the organization to be able to do the documenting**
- 2. Those high enough placed to do the documenting often lack the motivation to do it**

Strategy 4. Get the data – bottom up

Whistle blowing

Discrimination law suits

Me too

5. Other bottom-up strategies

Civil disobedience

Protest demonstrations

These, too, are rare

Strategy 6. Experimentation

**An idea perhaps worth experimentation in
UW's Math Department
(or in Washington K–12 schools?)**

**A variation on the effective symphony
orchestra strategy of blind audition**

**Gender-homogeneous or minority-
homogeneous sections of math courses**

MIT Broadens Minority-Only Programs

Nearly one-third of the graduates from DeLeon's program—called MITES, or Minority Introduction to Engineering, Entrepreneurship, and Science—have gone on to attend MIT, for example, with graduation rates slightly higher than the norm. MITES introduced DeLeon, to Engineering, Entrepreneurship, and Science—have gone on to attend MIT, for example, with graduation rates slightly higher than the norm.

Likewise, the Interphase program (which serves about a third of MIT's incoming class of minority students) helps those who might be intimidated by MIT's rigorous academic program, despite excellent test scores and grade point averages. "After you've been surrounded by a bunch of very bright minority students, you begin to have confidence in your ability to do this type of academic work,"



Teamwork. MITES students have fun testing robots they built.

MIT News
ON CAMPUS AND AROUND THE WORLD



High school students find their MathROOTS at MIT

Program aims to inspire female and underrepresented minority students to pursue STEM fields.

Launched this year by MIT's Program for Research in Mathematics, Engineering and Science (PRIMES) — an afterschool program for high school students — MathROOTS invited advanced high school students from underserved communities to develop their math skills at MIT. A total of 20 students spent 11 days — ending last Thursday — at the Institute, learning to solve Math Olympiad-style problems, as well as being introduced to special topics in mathematics.

To review

- **Discrimination that affects progress of under-represented persons in many domains is largely unintended by those who propagate it**
- **Some widely advocated remedies amount to “Stop it”**
- **Effective strategies exist, but are only rarely deployed**
- **As a result, race, gender, and other disparities in organizations are quite persistent**
 - **This is our society’s status quo**

Who should be responsible for altering this status quo?

- **Who will find and analyze the available evidence of disparities?**
- **Who will create the evidence when it doesn't already exist?**
- **Who will create the policies to remedy disparities?**



Mahzarin R. Banaji
Harvard University



Brian A. Nosek
University of Virginia

Collaborators

Past research support:
National Science Foundation
National Institute of Mental Health

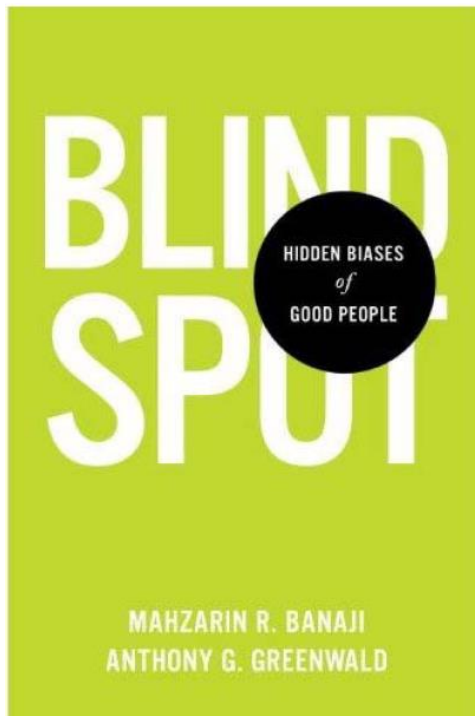
Present research support:



Project Implicit®



Dario Cvencek
ILABS
University of Washington





UW I-LABS (Institute of Learning & Brain Sciences) and local school districts are partnering together to bring research to Washington schools



Problem: UW I-LABS is looking into how boys and girls differ in developing interests in math and science. To increase the impact of this research, UW I-LABS would like to bring their research to the local and regional school districts in WA State.

UW Researcher: Dario Cvencek, Ph.D., has extensive experiences, both nationally and internationally, examining how learning takes place. He is interested in bringing his work back to Washington, and in particular, to the greater Seattle area.

In addition to Tony Greenwald, Dr. Cvencek's collaborators include Dr. Andrew Meltzoff (an internationally renowned expert in developmental psychology), Dr. Rebecca Covarrubias (a social-cultural expert on integration of culture into school contexts to create an inclusive learning environment for diverse students), and three UW College of Education professors from prominent universities in Chile.

Why: Math learning remains a critical component of success in school. We need to study how to strengthen and learn about teaching math and ensure the research is relevant to a diverse student body.

This project broadens and deepens the network of support for the school district's students. Building partnerships between academic researchers, schools, and community programs is an important part of our mission and our collaborations will guide us all to learn more about the complexities of this issue.

Our diagnostic, evaluative approach is ideally suited for quantifying and tracking changes in students' engagement and attitudes, that is, for exploring how mindsets, self-concepts, motivations, and identities contribute to academic success. Pre-post designs involving a combination of implicit and explicit socio-emotional learning (SEL) measures during the academic year offer a valuable new tool for use in schools.

UW I-LABS is interested in bringing this project to the local and regional school districts because the researchers realize that staying in their labs at the UW campus or partnering with private institutions limits who they reach. Their goals are to bring the research out into the community to make sure they are reaching diverse families and children and working with the community to keep their research as relevant as possible.

When: Now to 2019

Who: Elementary schools, specifically targeting K-3rd grade students, their families, and their teachers.

Partnerships: UW I-LABS is looking for about elementary school partners to host their research. Partner sites will receive \$750 as compensation for helping with scheduling, and we can also provide presentations on the research results if interested.

Time commitment: Students will spend 30-35 minutes to play a computer game and answer some questions. Generally, the time commitment by each partner site will range from 1 to 2 weeks. Parents and teachers, on the other hand, will participate in a similar study at school, at home, or a researcher could visit them if Internet or computers aren't accessible. Families who participate will receive a \$20 gift card for each participating individual (child, parent 1, parent 2, or other primary caregiver—for up to \$60 per family). Participating teachers will also receive a \$20 gift card for their time.