

# Empowering People to Break the Bias Habit

Creating Inclusion and Reducing Bias

Patricia G. Devine, PhD



## Opening Thoughts

Bias is a difficult topic to talk about

The purpose is not to blame any person or group

Goal is to empower individuals to understand, recognize, and manage biases

Help you to work together, as a community, to address challenges bias creates and improve climate

One part of a solution, not a total solution to bias and disparities

This presentation presents general principles applicable to many target groups and contexts

## Workshop Goals

### 1. Recognize implicit bias as a habit of mind

Understand that unintended thoughts can contradict our personal values and beliefs

### 2. Identify and label common forms of bias

Understand the processes that lead to the perpetuation of bias, to create bias literacy

### 3. Learn tools to reduce bias

Breaking the bias habit

### 4. Share evidence supporting this approach

Experimental research demonstrating the effectiveness of the habit-breaking approach

## Potential Sources of Bias

### Institutional/Systemic Bias

Laws, policies, norms

### Psychological/Individual Biases

#### Intentional Bias

Bias arising out of overt dislike, animus, or prejudice

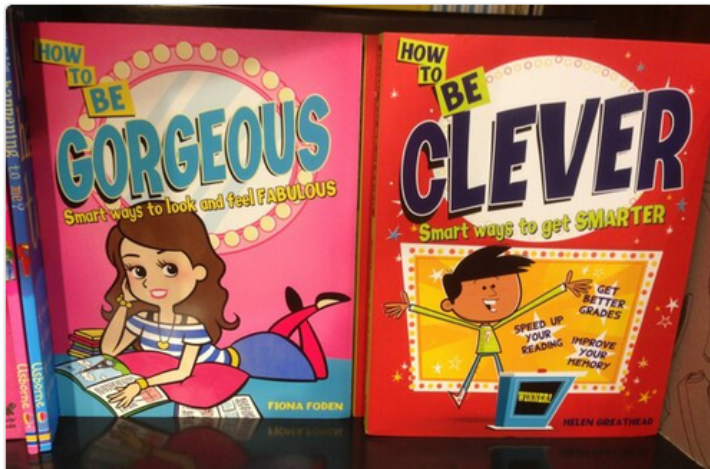
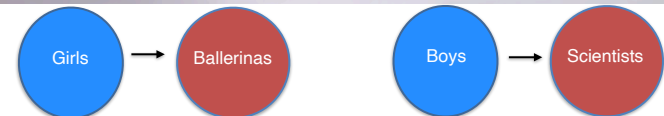
#### Unintentional Bias

Bias persists among those whose intentions and values oppose prejudice, creating a personal dilemma

## Personal Dilemma of Unintentional Bias

Stereotypic biases arise from early and frequent exposure to stereotypes in our culture

We learn to associate specific traits, characteristics and behaviors with certain social groups



AP Associated Press AP - Tue Aug 30, 11:31 AM ET

A young man walks through chest deep flood water after looting a grocery store in New Orleans on Tuesday, Aug. 30, 2005. Flood waters continue to rise in New Orleans after Hurricane Katrina did extensive damage when it

RECOMMEND THIS PHOTO » Recommended Photos Average (Loading)

RELATED

- Looting Takes Place in View of La. Police AP - Ti

(Dixon & Linz, 2001)

AP Associated Press AP - Tue Aug 30, 11:31 AM ET

A young man walks through chest deep flood water after looting a grocery store in New Orleans on Tuesday, Aug. 30, 2005. Flood waters continue to rise in New Orleans after Hurricane Katrina did extensive damage when it

RECOMMEND THIS PHOTO » Recommended Photos Average (Loading)

RELATED

- Katrina's Effects, at a Glance AP - Wed Aug 31, 11:11 AM ET

(Dixon & Linz, 2001)

AP Associated Press AP - Tue Aug 30, 11:31 AM ET

A young man walks through chest deep flood water after looting a grocery store in New Orleans on Tuesday, Aug. 30, 2005. Flood waters continue to rise in New Orleans after Hurricane Katrina did extensive damage when it

RECOMMEND THIS PHOTO » Recommended Photos Average (Loading)

RELATED

- Katrina's Effects, at a Glance AP - Wed Aug 31, 11:11 AM ET

(Dixon & Linz, 2001)

## Unintentional Bias as a Habit of Mind

Stereotypic biases arise from early and frequent exposure to stereotypes in our culture

We learn to associate specific traits, characteristics and behaviors with certain social groups

These associations become stronger over time and get activated spontaneously — they become **habits of mind** — that influence our thoughts and behavior without our intent or awareness

Leads well-intentioned people to be unwittingly complicit in the perpetuation of discrimination

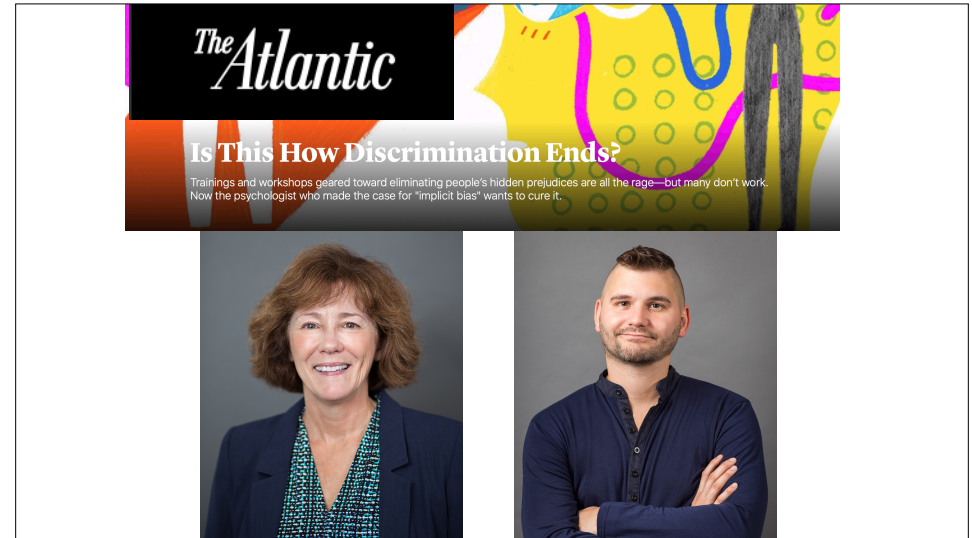
Ordinary, pervasive cognitive processes common among anyone socialized in our culture

Ordinary and common but consequential nonetheless

## Discussion

Discuss some examples of instances in which you have witnessed, heard about, expressed, or been targeted by bias

Focus especially instances of *unintentional* bias (e.g., stereotypic assumptions about someone)



## Discussion 1

Discuss some examples of instances in which you have witnessed, heard about, expressed, or been targeted by bias

Focus especially instances of *unintentional* bias (e.g., stereotypic assumptions about someone)

What are the implications of these biases?

How was the incident handled, if at all?

How might it have been handled better?

This message was downloaded as plain text.

[Download full message](#)

From: [REDACTED]

To: [Trish Devine](#) > [William Cox](#) >

[Hide](#)

NF

Cc: [REDACTED]

**Disability Interest Group Query**

Today at 5:22 PM

Good afternoon Ms. Devine and Dr. Cox-

I hope this finds you well. Attached is

correspondence from attorney Peter Lynch

## Bias as a Habit

If unintentional bias is a habit of mind, can individuals do anything to break the habit?



## Necessary Conditions to Break a Habit



**Motivation** to eliminate the habit

**Awareness** of personal vulnerability to the habit and how it manifests

Leverage points for disrupting the habit

**Tools** to disrupt the habit and replace it with intended responses

**Effort** over time to break the habit

## Leverage Points for Disruption: Manifestations and Perpetuation of Stereotypes and Biases

## Six Bias Constructs

Stereotypes and biases guide expectations:

Reconstructing Credentials

Prescriptive Norms

Self-Fulfilling Prophecy

Stereotypes influence evidence processing:

Attentional Spotlight

Confirmation Bias

Untested Assumptions

# Stereotypes Guide Expectations

People expect certain behaviors or characteristics in individuals based on stereotypes about the social category to which they belong



# Gender and Hiring in Science

## Peter Williams

**EDUCATION**  
BA, Psychology, Macalester College, 2013, *Summa cum laude*

**EXPERIENCE**  
**Stauffer Patent Services**  
*Assistant patent agent, 2012*  
Analyzed products for patentable material and wrote both provisional and utility patent applications, thereby providing legal protection to those aspects of clients' inventions deemed most unique and profitable.

**McMaster-Carr Supply Company**  
*Research Intern, 2011*  
Analyzed patterns of errors in a system for detecting duplicate orders and used the analysis to suggest changes. The project was published on the company network, serving as the basis for later improvements to the system.

## Paula Williams

**EDUCATION**  
BA, Psychology, Macalester College, 2013, *Summa cum laude*

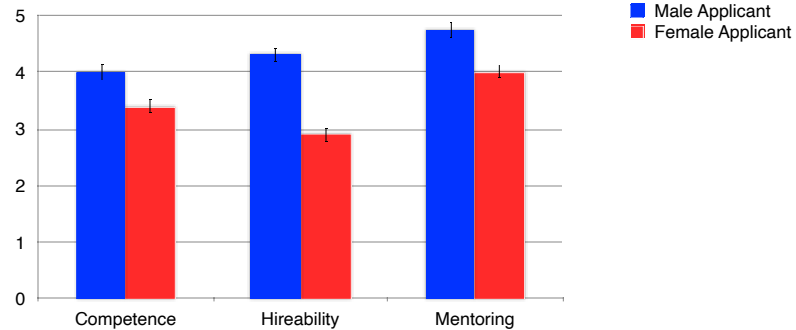
**EXPERIENCE**  
**Stauffer Patent Services**  
*Assistant patent agent, 2012*  
Analyzed products for patentable material and wrote both provisional and utility patent applications, thereby providing legal protection to those aspects of clients' inventions deemed most unique and profitable.

**McMaster-Carr Supply Company**  
*Research Intern, 2011*  
Analyzed patterns of errors in a system for detecting duplicate orders and used the analysis to suggest changes. The project was published on the company network, serving as the basis for later improvements to the system.

Two identical resumes with different names

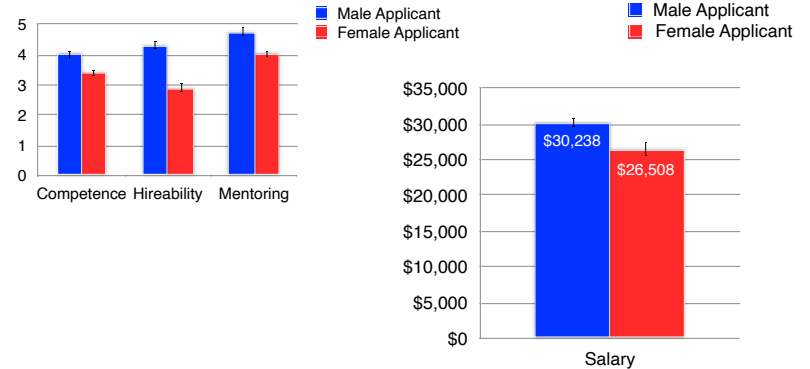
(Moss-Racusin et al., 2012)

# Gender and Hiring in Science



(Moss-Racusin et al., 2012)

# Gender and Hiring in Science



(Moss-Racusin et al., 2012)

## Reconstructing Criteria

Stereotypes lead us to see some people as a “good fit” for certain roles and others as less suitable

(Uhlmann & Cohen, 2005)

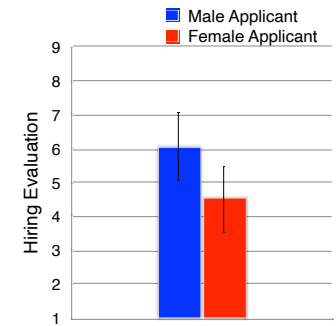
## Reconstructing Criteria

Stereotypes lead us to see some people as a “good fit” for certain roles and others as less suitable

Unintentionally adjusting the value of specific criteria to favor an applicant who stereotypically “fits” the position or role

Decisions *appear* to be based on objective criteria and not on stereotypes or biases

Thus, reconstructing criteria inadvertently justifies discrimination



(Uhlmann & Cohen, 2005)

## Prescriptive Norms

Stereotypes set up assumptions about how people *should* and *should not* behave

(Eagly & Koenig, 2008; Rudman & Fairchild, 2004)

## Prescriptive Norms



Neil DeGrasse Tyson

“The fact that I wanted to be a scientist... was hands-down the path of most resistance.

Teachers would say,

‘Don’t you want to be an athlete?’”

## Prescriptive Norms

Stereotypes set up assumptions about how people *should* and *should not* behave

Social penalties for violating these prescriptive norms

(Eagly & Koenig, 2008; Rudman & Fairchild, 2004)

## Self-Fulfilling Prophecy

Expectations lead you to behave in a way that causes others to behave the way you expected them to act

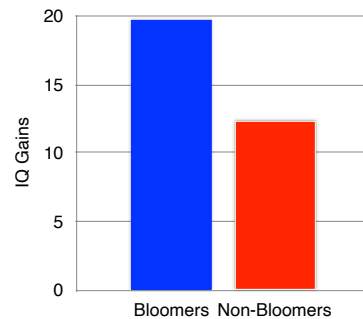
Teachers' expectations in the classroom and students' achievement

Teachers were told that some students, and not others, are "bloomers" who are highly likely to succeed

Unbeknownst to the teachers, the researchers randomly assigned students to be "bloomers" vs. "non-bloomers"

(Rosenthal & Jacobson, 1968)

## Self-Fulfilling Prophecy



Changes in teachers' behavior: More smiling, encouragement, and comments on homework

(Rosenthal & Jacobson, 1968)

## Stereotypes Affect Evidence Processing

People do not process evidence objectively and rationally

Stereotypes influence how we process and attend to evidence, in a way that perpetuates stereotypes and biases



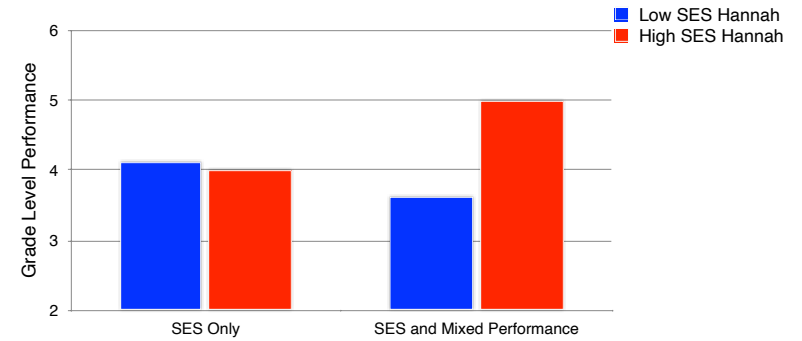
## Attentional Spotlights

Stereotypes draw attention to information consistent with expectations and away from information inconsistent with expectations



(Darley & Gross, 1983)

## Attentional Spotlights



## Confirmation Bias

People weigh evidence that confirms stereotypes more heavily than evidence that disconfirms stereotypes

Confirmation bias makes it harder to change stereotypes

Stereotype-confirming evidence leads people to stereotype more

(Cox, Xie, & Devine, 2019)

## Confirmation Bias

People weigh evidence that confirms stereotypes more heavily than evidence that disconfirms stereotypes

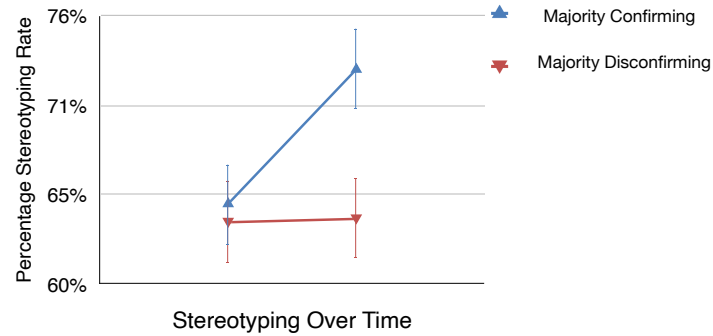
Confirmation bias makes it harder to change stereotypes

Stereotype-confirming evidence leads to increased stereotyping

Stereotype-disconfirming evidence little or no reduced stereotyping

(Cox, Xie, & Devine, 2020)

## Confirmation Bias



(Cox, Xie, & Devine, 2020)

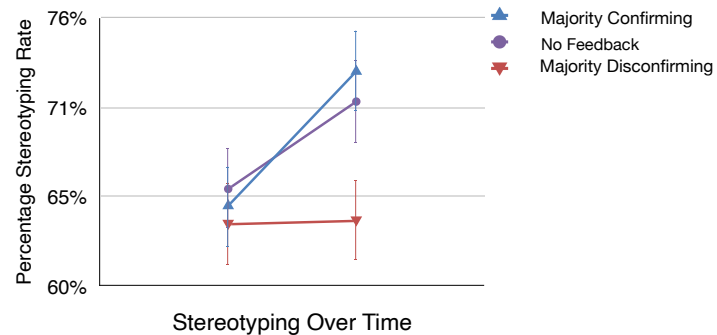
## Untested Assumptions

Stereotypic assumptions often go untested, and even unnoticed

Untested assumptions are treated as if they were confirmatory evidence in memory, leading people to rely more on stereotypes

(Cox, Xie, & Devine, 2020)

## Untested Assumptions



(Cox, Xie, & Devine, 2020)

## Untested Assumptions

Stereotypic assumptions often go untested, and even unnoticed

Untested assumptions are treated as if they were confirmatory evidence in memory, leading people to rely more on stereotypes

Ask: How do I know?

(Cox, Xie, & Devine, 2020)

## Discussion 2

### Stereotypes Guide Expectations

Reconstructing Criteria  
Prescriptive Norms  
Self-Fulfilling Prophecy

### Stereotypes Influence Evidence Processing

Attentional Spotlight  
Confirmation Bias  
Untested Assumptions

### Sample Problem

Nationally 80% of the healthcare workforce are women  
But only 19% of hospitals are led by women  
Just 4% of hospitals have a woman CEO

Given that women report being just as interested in leadership positions as men, describe how the bias constructs could lead to women's underrepresentation in leadership positions

## Discussion 2

### Stereotypes Guide Expectations

Reconstructing Criteria  
Prescriptive Norms  
Self-Fulfilling Prophecy

### Stereotypes Influence Evidence Processing

Attentional Spotlight  
Confirmation Bias  
Untested Assumptions

### More General Considerations

1. Discuss some possible ways these bias constructs may play out in your work or life contexts
2. Discuss ways the constructs may play out with groups other than those used as examples (e.g., other racial groups, regional differences, LGBTQ, religions, political parties, etc.)

## Bias Disrupting Toolkit

Detect Unintended Thoughts and Replace  
with Responses that Match Intentions

## Ineffective Tools

One way or another, these tools involve denying you can be influenced by bias or involve pushing bias away

But, use of these tools backfires, leading to more rather than less bias

## Ineffective Tools

### **Stereotype Suppression**

Banishing stereotypes from one's mind (e.g., "just try not to stereotype!")

(Macrae et al., 1994; Plaut et al., 2009; Uhlmann & Cohen, 2007; Wegner et al., 1987) 45

## Ineffective Tools

### **Stereotype Suppression**

Banishing stereotypes from one's mind (e.g., "just try not to stereotype!")

### **Attempting to Ignore Group Statuses**

Attempting to ignore group status (gender, age, etc.) when interacting with members of other groups (e.g., "I just don't see race.")

(Macrae et al., 1994; Plaut et al., 2009; Uhlmann & Cohen, 2007; Wegner et al., 1987) 46

## Ineffective Tools

### **Stereotype Suppression**

Banishing stereotypes from one's mind (e.g., "just try not to stereotype!")

### **Attempting to Ignore Group Statuses**

Attempting to ignore group status (gender, age, etc.) when interacting with members of other groups (e.g., "I just don't see race.")

### **Belief in Personal Objectivity**

Attempting to be and believing that you can be objective when making decisions (e.g., "I'll just be objective!")

(Macrae et al., 1994; Plaut et al., 2009; Uhlmann & Cohen, 2007; Wegner et al., 1987) 47

## Effective Tools for Reducing Bias



# Effective Tools for Reducing Bias



## Tools to Prevent Bias

## Tools to Use in the Moment

- Tool 1. Remove Identifying Information
- Tool 2. Commit to Criteria
- Tool 3. Broaden Your Exposure
- Tool 4. Modify Your Environment
- Tool 5: Think Ahead

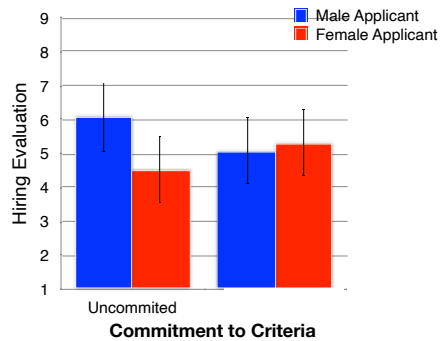
# Tool 1: Remove Goup Identifying Information

If you have no cues to group membership, they cannot affect judgments

# Tool 2: Committing to Criteria

Don't Trust your Gut

Decide what criteria are important before any applicant is seen



(Uhlmann & Cohen, 2005)

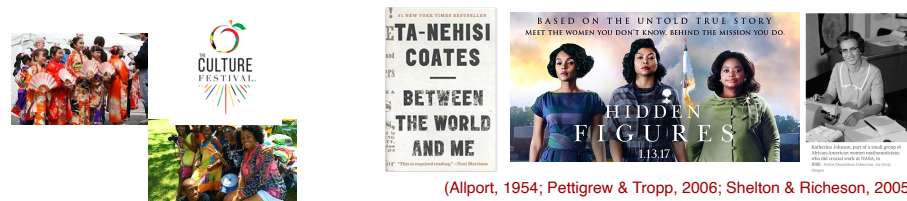
# Tool 3: Broaden Your Exposure

**Direct:** Seek opportunities for greater interaction with members of other groups

*Genuine* interactions



**Indirect:** Seek opportunities for greater exposure to movies, books, blogs, podcasts, and other media created by members of other groups



(Allport, 1954; Pettigrew & Tropp, 2006; Shelton & Richeson, 2005)

## Tool 4: Modify Your Environment

Building new associations to compete with habitual stereotypes

Evaluate the messages in the environment about who belongs and/or succeeds

(Cheryan, Plaut, Davies, & Steele, 2009)



Laura Kiessling

Sau Lan Wu

Elizabeth McCoy

## Tool 4: Modify Your Environment

Building new associations to compete with habitual stereotypes

Evaluate the messages in the environment about who belongs and/or succeeds

Increase representation of underrepresented groups: pictures, websites, speakers, course syllabi (e.g., assigned readings/authors, podcasts, films)

Affects both members of underrepresented groups (i.e., feeling more welcomed and included) and your own mind (i.e., reducing the strength of stereotypes)

(Cheryan, Plaut, Davies, & Steele, 2009)

## Tool 5: Think Ahead

To prevent impact of unintentional, spontaneous biases

Bias is most likely when we act spontaneously, are under time pressure, are stressed or otherwise caught off guard

If we *think ahead* about how we're going to make a decision or handle a situation, we will be less vulnerable to showing bias

## Effective Tools for Reducing Bias



### Tools to Prevent Bias

1. Remove Group Identifying information
2. Commit to Criteria
3. Broaden Your Exposure
4. Modify Your Environment
5. Think Ahead

### Tools to Use in the Moment

6. Stereotype Replacement
7. Consider Situational Explanations
8. Take Perspectives
9. Seek Out Individuating Information
10. Speak Up

## Tool 6: Stereotype Replacement

Rehearse Different Associations

**Detect** the influence of stereotypes and biases yourself the media or interactions with others

**Reflect** on the source of the stereotype and its effects on people

**Reject** the stereotypical portrayal or thought to rehearse a different reaction

**AND**

**Replace** stereotypes with a response more in line with your intentions

(Devine, 1989; Devine & Monteith, 1993)

## Tool 7: Consider Situational Explanations

By default, we tend to explain other people's behavior using personal characteristics

Think about how the situation may have influenced a behavior more than a personal characteristic

Actively consider things outside of the person as possible explanations for behavior

(Kawakami et al., 2000)

## Tool 8: Perspective-Taking

Imagine what it would feel like to be in another person's situation

Three things tend to happen:

People say "that's not fair"

And, "I would not want that to happen to me"

Develop empathy and put more effort into reducing bias so they don't contribute to these kinds of experiences

(Galinsky & Moskowitz, 2000)

## Tool 9: Seek Individuating Information

Stereotypes “fill in the gaps” in social perception



(Brewer, 1988; Fisk and Neuberg, 1989)

## Tool 9: Seek Individuating Information

Stereotypes “fill in the gaps” in social perception

Prevent stereotypes from filling in gaps by focusing on the details that make someone a unique individual

The more you learn about people, the less likely you are to judge people based on stereotypic assumptions

(Brewer, 1988; Fisk and Neuberg, 1989)

## Tool 10: Speak Up When Bias Occurs

Reaffirms Your Commitment to Combatting Bias

### Most effective when

Focus is on specific, concrete behaviors rather than general accusations  
The tone is focused on working together rather than finger pointing  
Solutions or explanations are provided

### Source: Role of Power and Identity matter

Authority figures and allies can be effective in addressing bias

### Thinking ahead can help you be prepared

### Hold yourself accountable and speak up about your bias slip-ups

(Czopp & Monteith, 2003; Parker et al., 2018)

## Effective Tools for Reducing Bias



### Tools to Prevent Bias

1. Remove Group Identifying information
2. Commit to Criteria
3. Broaden Your Exposure
4. Modify Your Environment
5. Think Ahead

### Tools to Use in the Moment

6. Stereotype Replacement
7. Consider Situational Explanations
8. Take Perspectives
9. Seek Out Individuating Information
10. Speak Up



## Discussion 3

### Tools to Prevent Bias

- Tool 1. Remove Identifying Information
- Tool 2. Commit to Criteria
- Tool 3. Broaden Your Exposure
- Tool 4. Modify Your Environment
- Tool 5. Think Ahead

### Tools to Use in the Moment

- Tool 6. Stereotype Replacement
- Tool 7. Consider Situational Explanations
- Tool 8. Take Perspectives
- Tool 9. Seek out Individuating Information
- Tool 10. Speak Up

**Sample Problem:** Think back to the problem of women being underrepresented in leadership positions. How could the tools be used to address this problem?

## Discussion 3

### Tools to Prevent Bias

- Tool 1. Remove Identifying Information
- Tool 2. Commit to Criteria
- Tool 3. Broaden Your Exposure
- Tool 4. Modify Your Environment
- Tool 5. Think Ahead

### Tools to Use in the Moment

- Tool 6. Stereotype Replacement
- Tool 7. Consider Situational Explanations
- Tool 8. Take Perspectives
- Tool 9. Seek out Individuating Information
- Tool 10. Speak Up

**More General Considerations:** Can you think of an example of a time that one or more of these tools might have been useful? Discuss some possible ways to apply these tools in your work or life contexts.

**Work:** Recruitment of new employees, interviews, training of employees, balance of work assignments, performance reviews, classroom settings, grading papers etc.

**Everyday life:** Childrearing, allocation of house duties, evaluation of prospective dates, inferences made of people on the street, media consumption. etc.

## Evidence Supporting The Bias Habit-Breaking Model

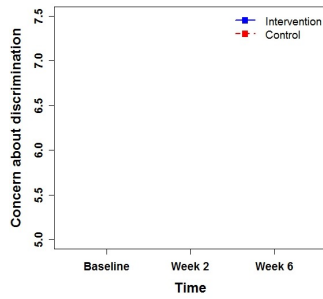
## Bias Habit-Breaking Intervention

Randomized Controlled Experiments, with people or groups being assigned to receive the intervention or serve as controls

Measured outcomes that should change if people pursue the goal of reducing bias and creating inclusion

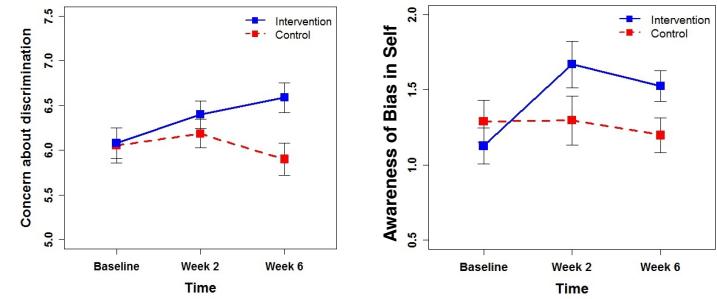
Assessed outcomes over time

## Individual Outcomes



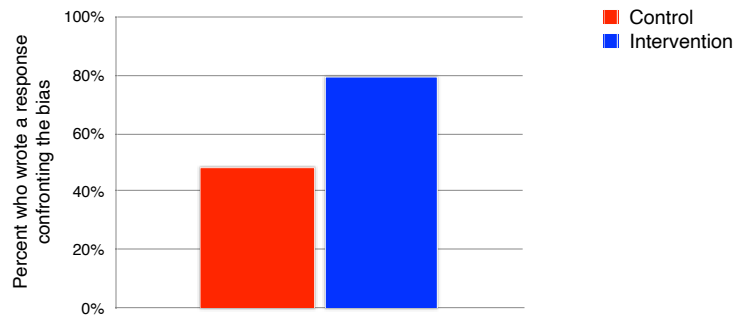
(Devine, Forscher, Austin, & Cox, 2012)

## Individual Outcomes



(Devine, Forscher, Austin, & Cox, 2012)

## Reactions to Bias-Perpetuating Rhetoric



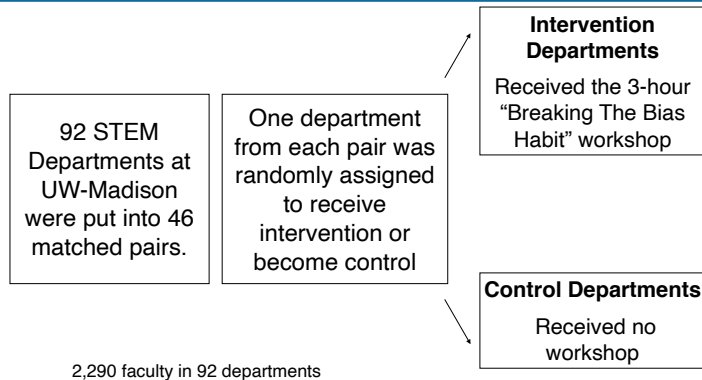
OR = 4.15, 95% CI = [1.51, 12.84]

(Forscher, Mitamura, Dix, Cox, & Devine, 2017) 71

## Gender & UW-Madison STEM Departments

(Carnes et al., 2015)

## Cluster Randomized, Controlled Trial



2,290 faculty in 92 departments

(Carnes et al., 2015)

## Individual & Institutional Outcomes

3 days and 3 months later, compared to controls, faculty in intervention departments showed increases in self-reported:

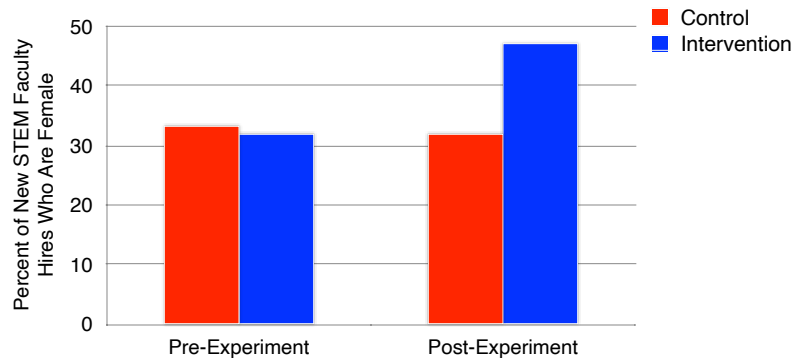
- awareness** of gender bias
- self-efficacy** to promote gender equity
- action** to promote gender equity

In unrelated departmental climate survey, compared to controls, intervention departments reported increased positive climate:

- fit** in their departments
- feeling their scholarship was valued** by colleagues
- comfort raising family obligations**

(Carnes et al., 2015)

## Institutional Outcomes



(Devine, Forscher, Cox, Kaatz, Sheridan, & Carnes, 2017)

## Breaking the Bias Habit

Unintentional bias is a habit that (with effort) can be broken

- It is a process
- Can expect that you may slip up
- Stay committed
- Strategies can become automatic

People can become powerful agents of change within themselves and in the social contexts and organizations in which live and work

Individual change can be an important step to institutional change

## Thank You For Attending!

Patricia G. Devine, PhD  
[pgdevine@wisc.edu](mailto:pgdevine@wisc.edu)

<https://devinelab.psych.wisc.edu/>



[www.biashabit.com](http://www.biashabit.com)