



**COUNCIL ON OCEAN
AFFAIRS, SCIENCE &
TECHNOLOGY**

BREAKING THE BIAS HABIT®

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9AM-4PM




1

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She, Her, Hers






INTERACTIVE TRAININGS

- Implicit bias
- Multicultural awareness
- Cultural competence

RESEARCH & ASSESSMENT

- Data collection, analysis, interpretation, and visualization
- Organizational pr outcomes



2



Jarrold Schwartz
Founder & Principal Consultant
Equity Praxis Group
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Equity Praxis Group

Equity Praxis Group (EPG) is a mission-driven consulting practice supporting organizations, communities, and individual leaders in fostering diversity, equity, inclusion and justice (DEIJ).

EPG helps people put cutting edge DEIJ and organization development theory into practice in order to transform their organizations, communities, and, ultimately, our world.

- Diversity
- Equity
- Inclusion
- Justice
- Cultural Proficiency
- Organization Development
- Systems Change

3

**Implicit Bias
Training in
Marine and
Coastal
Science**



4

Who's Attending Today's Workshop?

- CSU STEM faculty members
 - Biology, chemistry, geology, geography, fisheries, engineering, physics, natural resource management, environmental science
- CSU administrators and staff
- Hosts for COAST's summer internship program
- Friends from California Sea Grant
 - CA State Fellows Program



5

Why?

- Better understand my own biases and methods to mitigate for them.
- Be a better teacher and mentor.
- Be more informed to take direct anti-racist action in my life.
- Be aware of my own personal bias so that I can create a safe learning environment for all students.
- Be better equipped to intervene appropriately when I witness microaggressions and discriminatory behavior.
- I do not want to unintentionally create a hostile environment that might exclude some groups.
- Ensure that the students that join the major feel welcome and supported.



6

Today's workshop provides tools that can be applied to **ANY GROUP** that is marginalized or minoritized.

- Race
- Gender
- Ethnicity, culture, country of origin
- Socio-economic status
- First-generation
- Sexual/gender orientation and identity
- Rural vs. urban
- Veteran status
- Religion
- Disabled

Anyone who does not have equal access to power, wealth, and resources compared to a dominant group (majority group) based on cultural and physical differences.



7

Why Include All These Groups? Diversity Leads To Better Outcomes.

- Firms with women and POC in leadership and management roles have higher profit margins and more patents
- Scientific papers written by ethnically diverse teams had higher impact factors than papers written by people from same ethnic group
- Women and non-White scholars introduce more novelty
 - Rate of adoption is lower than for White men, indicating novelty is discounted

How Diversity Makes Us Smarter: Katherine W. Phillips | Scientific American (2014)
Why Diverse Teams Are Smarter: David Rock and Heidi Grant | Harvard Business Review (2016)
The Diversity-Innovation Paradox in Science: Bas Hofstra, Vivek V. Kulkarni, Sebastian Munoz-Najar Galvez, Bryan He, Dan Jurafsky, and Daniel A. McFarland | PNAS (2020)



8

No progress on diversity in 40 years
Ethnic and racial diversity are extremely low among United States citizens and permanent residents who earned doctorates in earth, atmospheric and ocean sciences. Worse, there has been little to no improvement over the past four decades.
Rachel E. Bernard and Emily H. G. Cooperdock

Minorities in Marine Biology: The Dearth of Black Professors
Kerwin Zetser | October 3, 2020

Race and racism in the geosciences
Geoscientists in the United States are predominantly White. Progress towards diversification can only come with a concerted shift in mindsets and a deeper understanding of the complexities of race.
Kuhell Dutt

Race Matters
David J. Aspi¹
¹Science Education, Howard Hughes Medical Institute, Chevy Chase, MD 20815, USA
David.Aspi@nih.gov
https://doi.org/10.1101/2020.08.04.311144

Why are there so few ethnic minorities in ecology and evolutionary biology? Challenges to inclusion and the role of sense of belonging
Laurie T. O'Brien¹ • Henry L. Bart² • Donna M. Garcia³

Despite their initial high interest in science, students who belong to excluded racial and ethnic groups leave science at unacceptably high rates. "Fixing the student" approaches are not sufficient at stemming the loss. It is time to change the culture of science by putting inclusive diversity at the center.

9

Largest and most ethnically and economically diverse four-year public university

Almost 75% of students are students of color

BY ETHNICITY		
African American	19,384	4.0%
American Indian	1,015	0.2%
Asian/Pacific Islander	75,572	15.7%
Hispanic/Latino	207,441	43.0%
White	107,932	22.4%
Other/Unknown	19,390	4.0%
Two or More Races	20,864	4.4%
Non-Resident Alien	30,231	6.3%

CSU 2020 Fact Book

How do we meaningfully include diverse students?

10

Diversity and inclusion cannot exist without a sense of belonging. We need to acknowledge people's identities for them to feel included. Focusing on diversity without inclusion makes marginalized groups feel that they merely serve as a diversity statistic, and that in reality their voices and experiences do not count.

Kuheli Dutt, 2020. *Race and racism in the geosciences*.

Simply admitting an URM student is not enough if that student feels unwelcome, unheard, and undervalued...Until URM students and researchers can bring their whole selves to their science, no amount of diversity will yield inclusion.

Purity et al., 2017. *Without inclusion, diversity initiatives may not be enough*. *Science* 357 (6356): p. 1101-02

Celebrating diversity and taking a multicultural, identity-affirming approach is more beneficial than taking a color-blind approach in which one ignores identity-based differences.

Ahmad et al., 2019. *Evidence-based Strategies for Improving Diversity and Inclusion in Undergraduate Research Labs*. *Frontiers in Psychology* 10: p. 1-6

Professionals must give equal attention to factors contributing to positive outcomes for students of Color...including visibly celebrating the stories of minoritized students and their contributions to the university community in ways that do not exceptionalize their successes

Powell et al., 2020. *A CRT-Informed Model to Enhance Experiences and Outcomes of Racially Minoritized Students*. *Journal of Student Affairs Research and Practice*: p. 1-13

11

Without inclusion, diversity initiatives may not be enough
Focus on minority experiences in STEM, not just numbers

Strategies for Increasing Diversity in the Ocean Science Workforce Through Mentoring
By Andrew Johnson, Meredith J. Higgins, David England, and LaFrance Braxton

Macrosystem Analysis of Programs and Strategies to Increase Underrepresented Populations in the Geosciences
Benjamin A. Wolfe¹ and Eric M. Riggs²

Structure Matters: Twenty-One Teaching Strategies to Promote Student Engagement and Cultivate Classroom Equity
Kimberly D. Tanner
Department of Biology, San Francisco State University, San Francisco, CA 94132

Evidence-Based Strategies for Improving Diversity and Inclusion in Undergraduate Research Labs
Alex Saad Ahmed¹, Isaac Scharf¹, Rachel Tompkins² and Eden King¹

A CRT-Informed Model to Enhance Experiences and Outcomes of Racially Minoritized Students
Candace Powell, Cynthia Demetrios, Tawani B. Martin, James M. Ellis

12

Implicit Bias Training

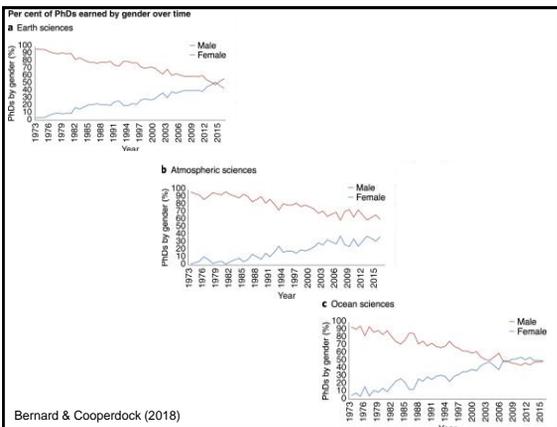
- Individual, institutional/structural, systemic (embedded in our society)
- Essential first step toward better understanding and dismantling power structures
- Needs to be on par with scientific and technical training
 - Search committees, RTP committees, interactions with grad and ug students
- REMINDER to check out COAST's **Anti-Racism and Inclusive Diversity Resources**

13

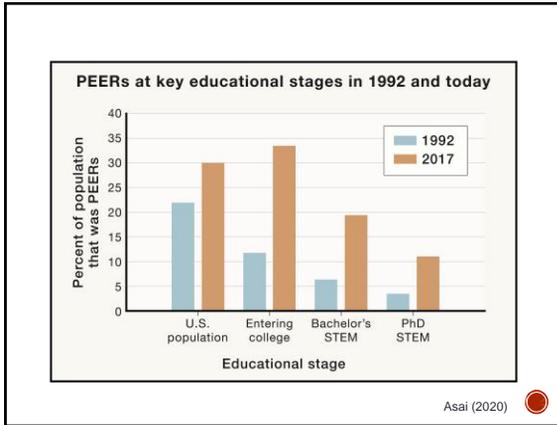
Focus of Workshop

What?	So What?	Now What?
<p>The Science of Bias</p> <p>Explicit vs. Implicit Bias</p>	<p>Exploring Our Own Biases</p> <p>How Bias Affects Decision-Making, Behavior, and Outcomes</p>	<p>The Individual Level</p> <p>Strategies to Break the Bias Habit®</p> <p>The Institutional Level</p> <p>Strategies to Inform Policy and Process</p>

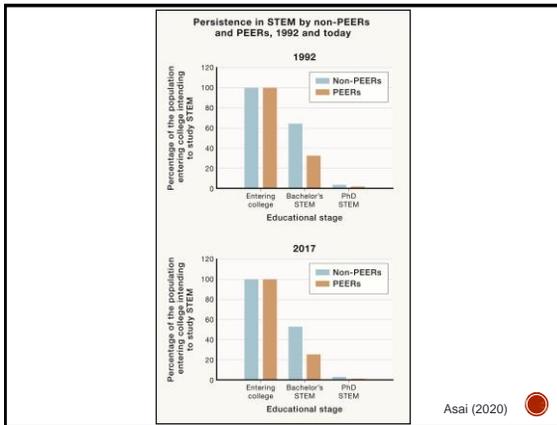
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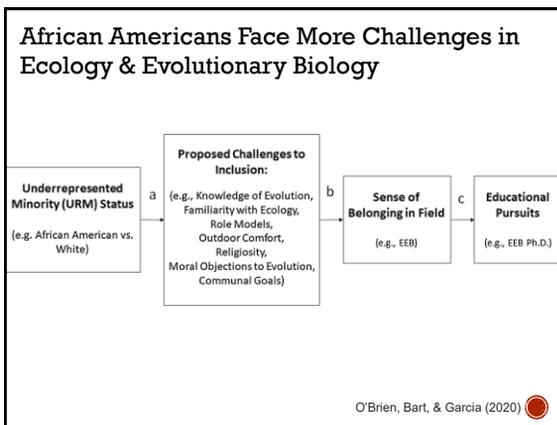
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18

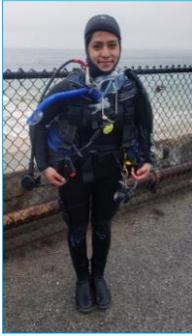
Barriers to fieldwork in undergraduate geoscience degrees

Sam Giles^{1,2*}, Chris Jackson³ and Natasha Stephen^{4*}

Fieldwork is an integral part of geoscience subjects, but changing career pathways and student demographics have major implications for the future of compulsory fieldwork. The ways in which fieldwork is taught and the learning outcomes it fulfills urgently need updating.

WORLD ENVIRONMENTAL EDUCATION VOLUME 1 | FEBRUARY 2021

For students new to geoscience, especially those who didn't have access to hiking and camping trips growing up, many items that seasoned field geoscientists take for granted, such as sturdy boots, good waterproofs, and a reliable backpack, must be purchased. This financial burden can be substantial, and typically occurs at a time when students face numerous other new costs. As a result, students often go to the field unprepared and are unlikely to enjoy the experience — having cold and wet feet for a week can understandably erode the desire to learn. Practical aspects of being outdoors can also be daunting for the unfamiliar. Unanswered questions about how to go to the toilet or deal with a period have a range of serious consequences, from dehydration to infections.



19



What are other ways you think implicit bias may limit the opportunities and success within COAST or in the field of ocean affairs, science, and/or technology?

20

NOW WHAT?

Moving From Awareness to Action

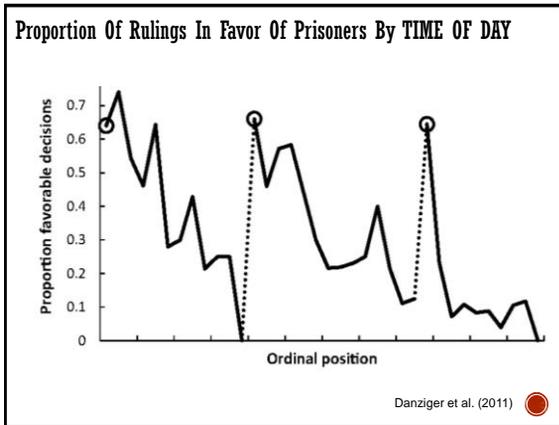


21

Reduce Situational Triggers

	Individual Level How can I...?
 	Make more TIME to pause?
	Reduce FATIGUE?
	Reduce STRESS?
	Reduce DISTRACTION?

22



23

Reduce Situational Triggers

	Institutional Level How can we...?
 	Make more TIME to pause?
	Reduce FATIGUE?
	Reduce STRESS?
	Reduce DISTRACTION?

24

Bias Override: Ineffective Strategies

Stereotype Suppression

- Banish stereotypes from one's mind
 - e.g., "Just try not to stereotype!"

Colorblindness

- Not possible
- Not desirable
 - "You can't have people saying they don't see color. I'm a black woman, and if you're telling me you don't see color, you're telling me you don't see the injustices that I've faced, the struggles that I have...and you definitely can't celebrate my culture" (Lex Scott, *The Atlantic*, 2017).



Shame, blame, and guilt are not effective

Munch-Juriscic (2020)

25

BREAKING THE BIAS HABIT®

Devine, Forscher, Austin, & Cox (2012)



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26

Bias Override: Effective Strategies

Individuating

Situational Explanations

Expanding Exposure

Perspective Taking

Stereotype Replacement

Devine, Forscher, Austin, & Cox (2012)

27

Strategy 1: Individuating



- **Automatic Assumption:** Same characteristics describe ALL members of a group simply because they belong to that group
- **Correction:** Take time to attend to specific, personal characteristics of the individual, such as family background and personality traits
- Stereotypes can strip away credit for talents or accomplishments

28

Strategy 2: Situational Explanations



- **Automatic Assumption:** Behavior is always caused by the person's qualities and characteristics
- **Correction:** Consider how situational factors and chronic environment may shape behaviors

29

Strategy 3: Expanding Exposure



- Change the messages coming to you by expanding your exposure to other societal messages
- Learn about historical, social, and political issues impacting people from different backgrounds
- Access media (news, television, social media engagement) from diverse groups that portrays cultural groups in authentic ways that don't perpetuate stereotypes

30

Strategy 4: Perspective Taking



- Imagining what it would feel like to be in another's situation
- Helps assess emotional impact of stereotyping
- Cross-cultural empathy
 - Understand the cultural ideas and practices of another person
 - Work within their cultural worldview



31

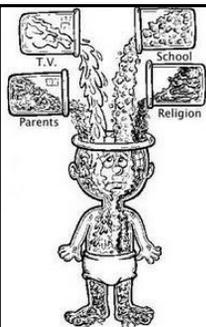
Strategy 5: Stereotype Replacement

- **Automatic Assumption:** Same characteristics describe ALL members of a group simply because they belong to that group
- **Correction:** Replace stereotypic responses with non-stereotypic responses
- **Detect** our reliance on stereotypes
- **Reflect** on where they come from and how they impact others
- **Reject** by replacing stereotype with a non-stereotypic thought



32

A Tool



▪ Think about messages you received growing up from movies, TV, books, games, peers, family, religion, etc.

- | | |
|-------------------------------|---------------------------------------|
| 1. Race/Ethnicity | 8. Ability |
| 2. Sex | 9. Immigration/
Citizenship Status |
| 3. Gender Identity | 10. Language |
| 4. Sexual Orientation | 11. Size |
| 5. Faith/Religion | 12. Age |
| 6. Socioeconomic Class/Status | 13. Other |
| 7. Political Ideology | |



33

Stereotypes & Implicit Bias Reflection Worksheet

1. Stereotype and the Group It is About	2. From whom or from where did I learn this stereotype?	3. What do I know about the history of this stereotype for this group?	4. What feelings does this stereotype evoke in me?	5. What assumption is made about this stereotype lead me to make?	6. What impact might this stereotype have on my behavior?	7. How might someone who lives in the shadow of this stereotype feel?	8. How else might someone who lives in the shadow of this stereotype be impacted by it?	9. With what kinds of messages could I replace this stereotype?	10. What have I observed in this person that might challenge or contradict this stereotype?	11. What situational explanations could explain the attitudes/behaviors I'm seeing?
Stereotype Replacement (Detect)	Stereotype Replacement (Reflect)	Stereotype Replacement (Reflect)	Stereotype Replacement (Reflect)	Stereotype Replacement (Reflect)	Stereotype Replacement (Reflect)	Perspective-Taking	Perspective-Taking	Stereotype Replacement (Reject/Replace)	Individuating & Stereotype Replacement (Reject)	Situational Explanations & Stereotype Replacement (Reject)

34

Breaking the Bias Habit® Workshops



- Devine and her colleagues showed that these workshops improve climate for female faculty
- Three months after the workshop, faculty in experimental departments felt more self-efficacy to promote gender equity than faculty in control departments
- Three years after the workshop, 52% of the new hires in experimental departments were women, compared to 28% in control departments

42

INSTITUTIONAL STRATEGIES

1. **Collect data**
 - Conduct a bias audit
 - Examine whether there are disproportionate outcomes instead of focusing on intent, especially in areas consistent with societal stereotypes (e.g., gender & STEM, race/ethnicity)

- **What data does COAST currently have that might reveal implicit bias is at play?**
- **What additional data (or ways of analyzing the data) are needed?**

49

INSTITUTIONAL STRATEGIES

2. **Affirmatively state and pursue equitable outcomes**

- Focus on aligning outcomes with goals
- **Does COAST currently have an explicit commitment to equity?**
 - **If yes, is everyone bought in?**
 - **If not, how do we build buy-in?**
 - **If no, what would it take to create one and generate buy-in?**



50

INSTITUTIONAL STRATEGIES

3. **Involve a diverse cross-section of decision-makers**

- At every level of the process
- Especially from underrepresented groups
- **Does COAST currently have a diverse cross-section of decision makers at every level?**
 - **If yes, does everyone feel like they can bring their full selves?**
 - **If no, who is missing and how do we engage them?**



51

INSTITUTIONAL STRATEGIES

4. **Doubt objectivity and test for bias**

- Perceived objectivity enhances the impact of bias
- Include bias-disrupting procedures and processes



52

VALUE OF CLEARLY DEFINED CRITERIA

- On a vague grade-level evaluation scale, teachers rated a student writing sample lower when it was randomly assigned to have a Black author, versus a White author.
- However, there was no evidence of racial bias when teachers used a rubric with more clearly defined evaluation criteria.



53

EQUITABLE POLICY REVIEW

- What is the policy, program, practice, decision, service, etc. under consideration?
- What is the intended outcome?
- Could there be any unforeseen outcomes?
- Who is or will be most affected?
- Who benefits or will benefit? Is the benefit shared proportionally?
- Who is or will be burdened or harmed? Is the burden or harm felt disproportionately?
- Who leads? Are those who are or will be most affected leading?
- Who decides?
 - Have the people who are/will be most affected been engaged?
 - Are there opportunities to expand engagement?
 - Will they have a full voice in the decision(s)?
- If we were to listen to our own discussion about this, would we hear stereotypes or bias in the conversation?
- Does the policy, program, practice, decision, etc. perpetuate stereotypes?
- What else could we ask?

54

INSTITUTIONAL STRATEGIES

- 4. **Doubt objectivity and test for bias**
 - Perceived objectivity enhances the impact of bias
 - Include bias-disrupting procedures and processes
- **What bias disrupting procedures and processes does the COAST currently have in place?**
- **What additional bias disrupting procedures and processes could COAST put in place?**

55

INSTITUTIONAL STRATEGIES

5. **Educate a critical mass about bias**

- Develop a language and culture that allows people to talk about bias productively



56

The Power of Being Aware and Motivated

- All members of the Ohio State University College of Medicine (OSUCOM) admissions committee took the implicit association test (IAT)
- All groups displayed significant levels of implicit white preference
- 48% were conscious of their individual results when interviewing candidates in the next cycle
- 21% reported knowledge of their IAT results impacting their admissions decisions in the subsequent cycle
- The class that enrolled following the IAT exercise was the most diverse in OSUCOM's history



Capers IV, Clinchot, McDougle, & Greenwald (2017)



57

INSTITUTIONAL STRATEGIES

5. **Educate a critical mass about bias**

- Develop a language and culture that allows people to talk about bias productively
- **Who else needs to receive implicit bias training and other DEI/J training?**
- **How can we make that happen?**



58

INSTITUTIONAL STRATEGIES

- 6. **Collect data (again!) and evaluate outcomes**
 - Monitor progress toward stated goals
 - Identify learning
 - Engage in continuous improvement
- **How are we currently using data to support continuous improvement?**
- **What else can we be doing?**

*“Use data not as a hammer,
but as a flashlight.”*

Cindy Marten, Superintendent, San Diego Unified School District



59

How could you utilize these strategies to strengthen COAST and to improve opportunity & outcomes within the field?

Conditions

1. Time
2. Fatigue
3. Stress
4. Distraction
5. Motivation

Individual Strategies

1. Individuating
2. Situational Explanations
3. Expanding Exposure
4. Perspective Taking
5. Stereotype Replacement

Institutional Strategies

1. Collect data
2. Affirmatively state and pursue equitable outcomes
3. Involve a diverse cross-section of decision-makers
4. Doubt objectivity and test for bias
5. Educate a critical mass about bias
6. Collect data (again!) and evaluate outcomes



60

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64