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Anti-Bias Strategies for Equitable Faculty Grading

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Anti-Bias Strategies for Equitable Faculty Grading

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Learning Outcomes

- Review Pacific's DEI Framework.

- Define bias and implicit association.

- Explore the research on bias in grading.

- Recommendations on how to mitigate bias in grades.

- Discuss in pairs how to apply recommendations.

About *me*

How do we institutionalize *love* & *belonging*?

Humanizing Higher Education

Our framework will resist being an add-on. It will focus on changing the system.

We need frameworks that humanize educational spaces and practices that embody a spirit of change and hope.

Intersectional

Equity Focused

Integrative

DEI must be

Systemically Aware

Socially Conscious
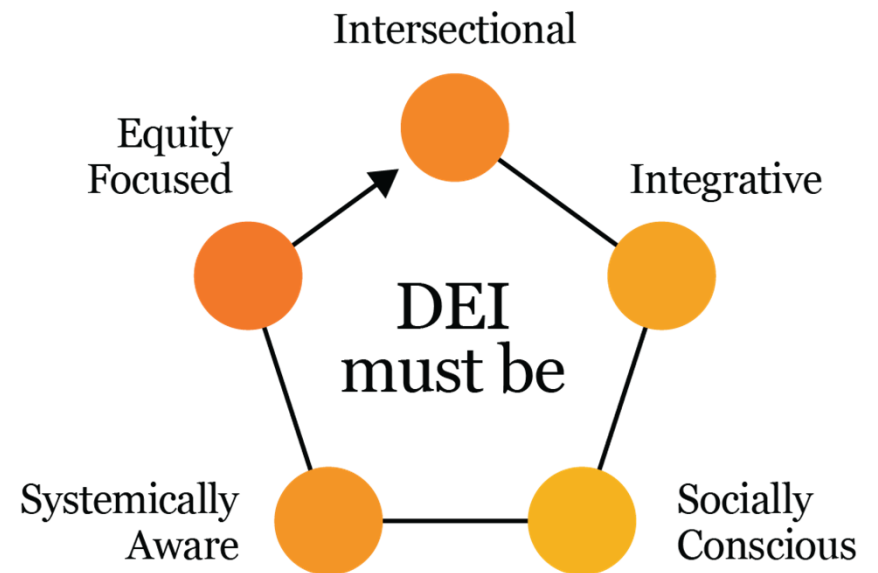
Becoming an *Anti-Racist University*

Anti-racism is the *active* process of identifying and challenging racism, by changing systems, organizational structures, policies and practices, and attitudes to redistribute power in an equitable manner.

Center for the Study of Social Policy

What Is *Implicit Bias*?
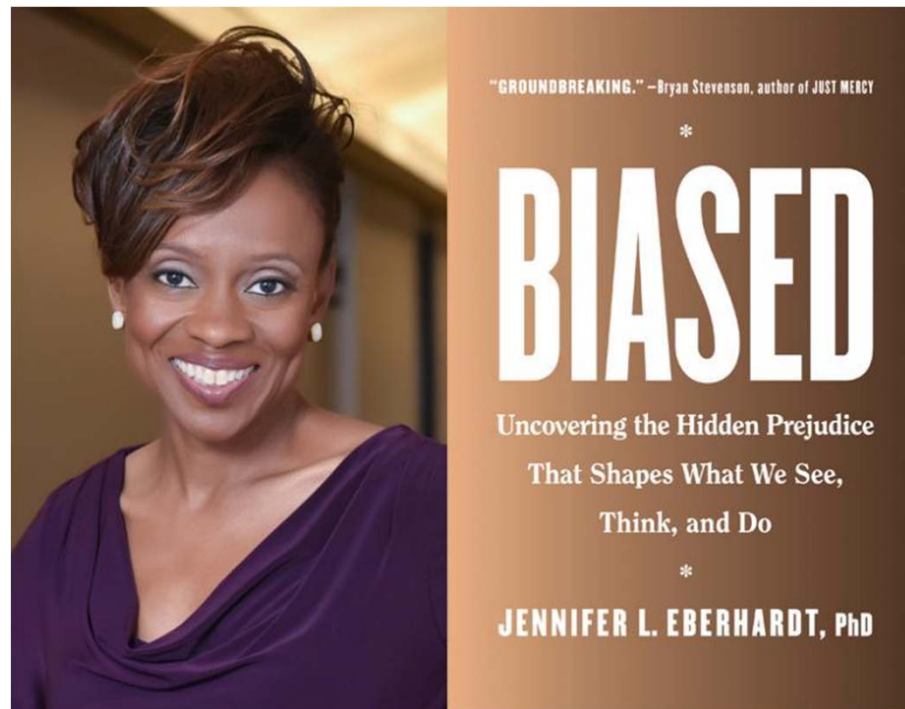
Image from Forbes

What Is *Implicit Bias*?

- Learned attitudes or stereotypes that exist in our subconscious and can <u>involuntarily</u> affect the way we think and act.

- These biases, which encompass both favorable and unfavorable assessments, are <u>activated involuntarily</u> and without an individual's awareness or intentional control.

- Implicit biases affect our visual perception, attention, memory, and behavior.

Infant Development: Early Stages

4 Weeks … "Prefer" Female vs. Male Face

9 Months …"Prefer" Same Complexion

10 Months …"Prefer" Same Language

Implicit Bias
Summary from Research

- Unconscious biases develop at an early age: biases emerge during middle childhood and appear to develop across childhood (Dore, 2014).

- Unconscious biases have real world effects on behavior (Dasgupta, 2004).

- Unconscious biases are malleable - one can take steps to minimize the impact of unconscious bias (Dasgupta, 2013; Dasgupta & Greenwald, 2013).

Qualities Subject to Bias

- Weight

- Accent

- Dress / Attire

- Piercings & Tattoos

- Perceived age

- Perceived race

- Complexion / Color

- Gender

- Religion

Research on Bias *in Grading*

1. Bias in Medical and Higher Education

Colson et al. (2020)
Bias in individual assessments is significant, particularly in normative grading systems. The shift to grading committees and competency-based assessments is recommended to reduce bias.

O'Sullivan et al. (2023)
Racial and ethnic biases in clinical grading disadvantage minority students, affecting their academic progression and career opportunities,

Research on Bias *in Grading*

2. Racial Biases

Quinn (2020)
Standardized grading criteria can significantly reduce the grade gap between Black and White students, demonstrating the potential of systematic interventions to counteract implicit biases.
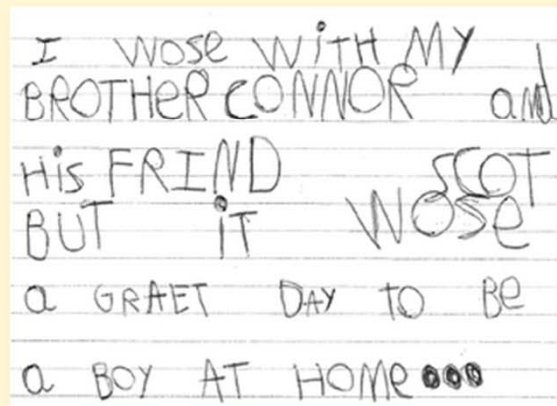
Tyner et al. (2020)
Racial bias in grading is evident, with White teachers assigning lower grades to Black students. Detailed grading rubrics are suggested to reduce this bias.

Research on Bias *in Grading*
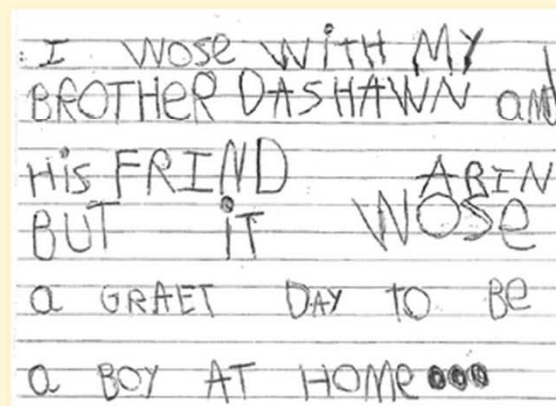
One Writing Sample, Two Student Races (Figure 1)

In an experiment, teachers were asked to assess one of the two writing samples below, which were presented as the work of a second-grade boy asked to write about his weekend. The work is identical except for the names mentioned—either "Dashawn," suggesting it was written by a Black student, or "Connor," suggesting it was written by a white student.

I wose with my brother CONNOR and his frind scot but it wose a graet day to be a boy at home 000

I wose with my brother DASHAWN and his frind arin but it wose a graet day to be a boy at home 000

SOURCE: Author

Images from Quinn (2021)

Research on Bias *in Grading*

Rubrics Decrease Racial Bias in Grading Writing (Figure 2)

When teachers used a vague "grade-level" scale, they were 4.7 percentage points more likely to rate a white student's writing at grade-level or above compared to the same sample written by a Black student. However, when teachers used a rubric with specific criteria, the difference in grading for a white or Black student was no longer statistically significant.

Grading differences by student race

NOTE: Figure shows the percentage of teachers rating the assignment "at grade level" or above (Grade-Level Scale) or "recounts an event with some detail" or above (Rubric). Estimates are adjusted for teacher gender, grade-level, race/ethnicity, experience, and school racial demographics.

* = difference in grades is statistically significant at the 95% confidence level.

SOURCE: Author's calculations

Images from Quinn (2021)

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Research on Bias *in Grading*

Larger Grading Differences for White and Female Teachers (Figure 3)
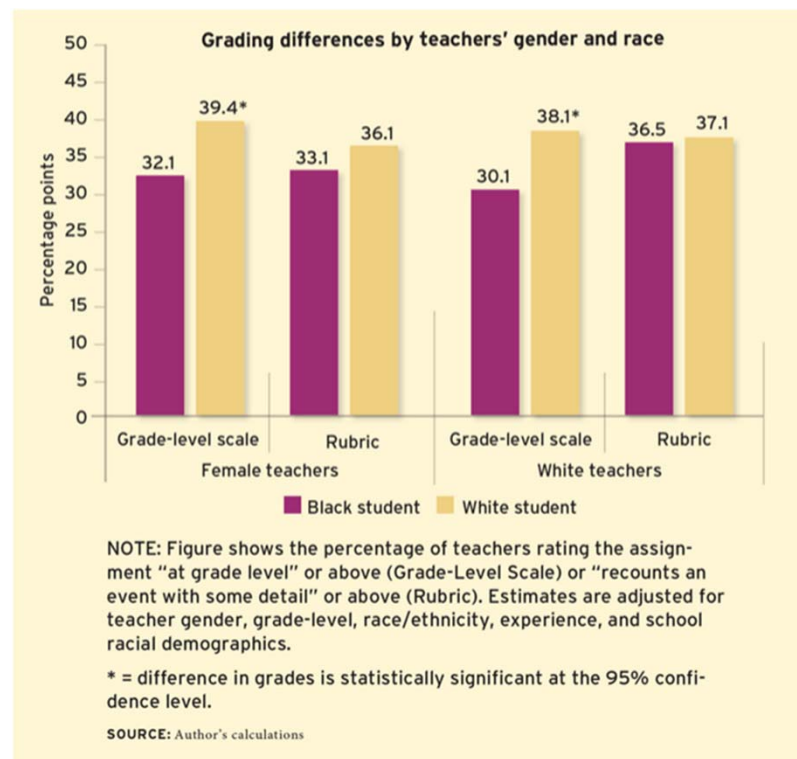
The differences in grades assigned to Black and white students when using the "grade-level" scale were largest for female teachers and white teachers. Even for these groups, there were no statistically different differences in grading when the teachers used the grading rubric with specific criteria.

Grading differences by teachers' gender and race

Female teachers:
- Grade-level scale: Black student 32.1, White student 39.4*
- Rubric: Black student 33.1, White student 36.1

White teachers:
- Grade-level scale: Black student 30.1, White student 38.1*
- Rubric: Black student 36.5, White student 37.1

(Percentage points, y-axis 0–50)

■ Black student ■ White student

NOTE: Figure shows the percentage of teachers rating the assignment "at grade level" or above (Grade-Level Scale) or "recounts an event with some detail" or above (Rubric). Estimates are adjusted for teacher gender, grade-level, race/ethnicity, experience, and school racial demographics.

* = difference in grades is statistically significant at the 95% confidence level.

SOURCE: Author's calculations

Images from Quinn (2021)

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Research on Bias *in Grading*

3. Gender and Experience-Based Biases

Hofer (2015)
Gender bias in grading is prevalent in physics, particularly among less experienced teachers. Structured grading criteria and anonymous grading are effective in mitigating these biases.

Moss-Racusin et al. (2012)
Subtle gender biases favor male students in science, impacting their perceived competence and career opportunities.

Research on Bias *in Grading*

4. Halo Bias in Grading

Malouff et al. (2013, 2014)
Faculty impressions of students can lead to halo bias, affecting grades across different tasks. Anonymous grading is recommended to ensure objectivity.

Recommendations from Researchers

Thematic and overlapping recommendations emerged for anti-bias strategies in grading:

- Anonymous grading

- Clear, standardized grading rubrics

Priming

- Implicit memory effect in which exposure to *one stimulus* influences a response to *another stimulus*.

- Often there is little or no conscious awareness of the impact of one stimulus on another.

First Impressions

We can't turn off the priming process.

But it can impact your immediate assessment of a students' performance.

These impressions are influenced by past experiences, preferences, as well as explicit and implicit biases.

What helps mitigate the response?

Recognizing your immediate reaction to students (e.g. name, accent, dress, hair style, color, weight, complexion) …use that reaction as a cue to **reflect carefully about your assumptions and behavior in their academic performance**.

Deepening your understanding of your strongly held preferences, likes, dislikes, inclinations, and beliefs.

Broadening exposure to broaden preferences.

Everyone Has Implicit Associations

- Online test designed to detect the strength of a person's automatic associations between mental representations of objects (concepts) in memory.

  - For example, the IAT measures the strength of associations between concepts (e.g., Black people, gay people) and evaluations (e.g., good, bad) or stereotypes (e.g., athletic, clumsy).

- Tests are available to test your implicit associations about race, gender, age, weight, sexual orientation, religion, etc.

Here's the point research has proven:

We often think we're being objective, but we aren't.

Self Reflection

Does implicit bias mean that you're deficient in some way? A bad person?
No!

Yet consider how you would explain implicit bias to someone.

What are some *anti-bias measures* we can take to ensure fair grading of student work?

Consider a two-phase process to reduce implicit bias.

Phase 1 – Planning & Education

- Commit to your individual anti-bias literacy. Seek to counteract implicit biases by taking an anti-bias workshops.

- Have departmental level discussions about implicit bias in grading. Help others get comfortable talking about implicit biases.

Phase 2 – Implement Anonymous Grading & Rubrics

- Discuss current evaluation tools (e.g., rubrics) and implement anonymous grading to counteract bias in grading.

- David Yu is offering faculty Anonymous Grading in Canvas workshops through CTL this fall.

Reflections from a Student

Henna Khan, Senior

Major: Communication

Minor: Psychology & Public Affairs

CIP Scholar

Reflections from a Student

Suggestions for improvement:

- Faculty should prioritize having open dialogue with students when it comes to bias regarding grades because it allows students to want to advocate about this issue in a constructive manner.

- Better transparency, an example of this is having rubrics with more details that has what is expected clearly written. By doing this, biases do not affect assessments.

- Faculty holding themselves accountable for when biases are brought into light which certain mechanisms could be incorporated such as regularly reviewing grading patterns or even just taking student feedbacks seriously if bias is mentioned.

Conclusion

The influence of subtle, unconscious biases in grading impacts students, *YET*…

We can mitigate and remove implicit biases with strategies and education for fairness and inclusion in our search processes with applying anti-bias strategies.

Conclusion

Two supplemental documents on the research, as well as this slide deck, will be made available soon.

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Thank you.

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