

Lesson 2 - Implicit Bias

How can we know the impact our subconscious bias has on our actions? Do implicit biases matter?

NGSS connections: **Practices:** Asking Questions and Defining Problems; Analyzing and Interpreting Data; Engaging in Argument from Evidence; **CCCs:** Patterns; Cause and Effect.

Starting point for instructors

- Do [Unit 0 - Setting the Stage](#) before this, and review norms if needed
- The pre-lesson homework is particularly important to complete before class.
- The last point on the pre-lesson homework refers to privilege ([the Invisible Knapsack](#)) and statistics. Instructors may want to introduce these concepts first (see [Unit 1 - Data Analysis](#) and [Unit 2 - Systemic Racism](#)) or remove that bullet point from the homework.
- **Trigger warning:** this lessons contains an optional activity which examines the connection between implicit bias and fatal police shootings. Since this topic can be triggering to students, If you plan to include this we recommend mentioning your plan to students at the start of class with an alternative for those who need to opt out.

Instructor Note:

This lesson was first designed in 2005, and the [Shoot/Don't Shoot](#) resource added a few years later. Disproportionate violence by police against people of color long predates implicit bias research...and yet the recent murder of George Floyd and and the efforts of Black Lives Matter have brought particular attention to its relevance. When police officers, equipped and empowered to kill, have to make snap decisions under duress, implicit bias can have fatal consequences.



Pre-Lesson Student Exploration / Bell-Ringer

Before coming to class, students need to:

Complete the Implicit Association Test (IAT). Consider also asking students to complete an accompanying [example homework](#) that includes instructions for finding the IAT, printing out a proof of completion, and guided reflection questions. Completing the IAT is a critical component that needs to be done before class discussion. You may want to ask students who haven't done the homework ahead of time to complete it at the start of class so that their results can be compiled into the class data. These students, along with others who forgot to print out their results, can simply write their two results anonymously on two half-sheets of paper.

Instructor Note:

This is a homework that is especially important for instructors to do before class as well, even if you have done these tests before. Getting the results is a powerful experience and may help you stay aware of what questions students might have.



In-Class Investigations

Optional: Collect and compile test results. [10-15 minutes]

Activity: Collect the two anonymous IAT test result pages from each student, one listing their result on the Race IAT and one on the Gender-Science IAT

1. Compile the data. If you'd like, you can enter the results into a spreadsheet:
 - a. Make a copy of the [Google Sheet](#) unique to your own class (or copy [the Excel template](#))
 - b. Put this year's data, with each section in a separate column, on the 'Year 1' sheet
 - c. The spreadsheet will automatically sum the results and generate a histogram
 - d. If you add new data each year ('Year 2', etc.), check the 'Totals' sheet for a tally
2. While you compile the data, have the students watch [this video introducing the IAT](#) (~2.5 minutes), then write a response to the following prompts:
 - a. How does this video make you feel?
 - b. How did your IAT results make you feel?

If you need more time to compile the data, have students discuss their responses in small groups.

Is the Implicit Association Test relevant to society? [20 minutes]

The following discussion prompts do not need to be completed in order.

- a. Use an [Anonymous Poll](#) to pose the prompt "What's something you haven't felt comfortable saying?" to set a tone encouraging students to share honestly with one another. This also allows the instructor to get a sense of what's on the students' minds at this point of the unit.
- b. *Open Q+A:* What is this actually testing? (See Instructor Note below)
- c. [Manual Thermometer](#) → Discussion: Do these implicit biases matter at all? Why might these results not be relevant? **If you've taught [Unit 2 - Systemic Racism](#)**, discuss: Is having implicit bias an example of racism?
- d. How might implicit bias relate to the underrepresentation we started this unit with?
- e. *Optional:* [Implicit bias may be connected to fatal police shootings](#) by police members who do not consider themselves explicitly racist. In [Shoot/Don't Shoot tests](#), police officers' results *do reflect* implicit bias, but *less so* than the general public. On the other hand, implementing [diversity training](#) to combat implicit bias sometimes has minimal effect.

Instructor Note:

Students may have a lot of skepticism and criticism of the IAT test, and there is some discrepant research on the validity of whether implicit biases influence behaviors. Consider these tips to make this lesson more impactful.



1. Do your research so that you can answer their questions - for example, pointing out that the order in which sorting criteria are paired is randomized, and that the results account for your familiarity with what comes first - is an important step towards getting students to consider their results. Additionally, encouraging them to take the test again to see what



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happens can be useful. (Some students may have already taken the test multiple times and can share their experiences.)

2. The question of whether IAT results “matter” is a subtle one: we take the position that implicit bias does not matter as much as the actions people take, but also note that implicit bias *can* shape action. We encourage facilitators to focus on discussion and be ready to help students see both sides.
3. We encourage instructors to think carefully about how they want to link this lesson on implicit bias to police killings. On the one hand, this connection seems naive to ignore and we suspect students are making it even if we do not name it explicitly. On the other, the mention of these murders can be triggering and harm students (especially Students of Color). Throughout the URC, we encourage facilitators to view discomfort as a resource to promote learning where possible but to also stay keenly aware of the distinction between discomfort and harm. At the very least, we encourage instructors who plan to discuss police violence to include a trigger warning to allow students to make the choice that is right for them.

Relevance of the Implicit Association Test? [10-15 minutes]

1. *Class Discussion:* Is the Implicit Association Test relevant to our class? Our school?
2. *Optional follow-up to data collection in-class:* Share the class data compiled from the pre-lesson homework and search for trends. What do the trends mean for our class? For our school? (instructors may choose to share their own results here.)
3. *Optional:* How does it feel to explore this? [Emotional Check-In](#)

Can we reduce our implicit bias? [10-20 minutes]

Share with students that research on the IAT and implicit bias cannot say for sure that implicit biases can be reduced, or eliminated. However, some research suggests that [a reduction of implicit bias is possible](#), and more research is being done every day on the matter. Put students into small groups and assign each group one of the following links before having them report back or use the [jigsaw discussion technique](#).

General Principle	Research Support	Specific Action
Spread awareness	post-NBA study	Share your learning
Stay aware of tendencies	J Smooth video	“Plaque, not tonsils”
Debunk assumptions	Counter-stereotypical Examples	Diversify your feed
Put systemic checks in	Violins + high heels , Hubble Space Telescope proposal process	“Thinking systemically”



Optional: Gender Biases in the Selection Process for Awarding Telescope Time [20-25 minutes]

Listen to the Short Wave Podcast from NPR on telescope equity: "[Fighting Bias in Science: When There's A New Telescope, Who Gets To Use It?](#)" (14 minutes; the selection process and results are described from 3:49-14:20)

Share these prompts with students and give them time to discuss.

- How was telescope time awarded before 2018?
- How did the selection process change in 2018? What motivated this change?
- What were the results of this change?
- Can you think of any institutions making competitive choices that might benefit from a similar shift? How would that work?
- Can you think of any actions, based on what you heard, that you could take to reduce your own implicit bias?

Optional Activity: Exploring the scientific controversy around implicit bias [10-15 minutes]

Although many have found the IAT to be a valuable framework for thinking about bias, there is some controversy around the test that you may want to discuss with your students. It may be useful to point out how the controversies highlight a strength of science: the demand for evidence before making firm conclusions.

- a. Controversy around the scientific legitimacy of the IAT: "The IAT has also attracted its share of critics. Some debate the test's psychometric validity and reliability. Others worry that the publicity is pushing it into the public sphere--particularly into the hands of legal scholars who argue it can be used to reshape antidiscrimination laws--before it's been properly vetted" ([APA](#)).
- b. Controversy around the effectiveness of unconscious bias training: "A focus on implicit bias at the expense of an attention to both explicit bias and the impact of bias may in fact be harmful to the fight for equality" ([Chanda Prescod-Weinstein](#)).

Resources

- [Lesson Plan Resources](#)

Notes from the Instructors

1. For more on the URC's statement on Black Lives Matter, please visit [this section of our website](#).



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