The Bias Inside Us

Educator Toolkit

Smithsonian



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Introduction

Thank you for your interest in this Smithsonian Institution Traveling Exhibition Service (SITES) educational resource.

The educator toolkit is intended to be used in conjunction with *The Bias Inside Us* traveling exhibition and online exhibition. https://biasinsideus.si.edu/online-exhibition/section-menu/

The Bias Inside Us is a community engagement project to raise awareness about the science and history of bias and what people can do to change their own biases and the biases in their communities. In more than forty communities across the country, the traveling exhibition serves as a centerpiece for local programs and activities. The online version of the exhibition allows many others to explore this topic.

This toolkit features a set of ten posters to spark conversation about the meaning, scientific research, and real-word impact of bias. It provides additional context around themes, starter questions, links to activities within the online exhibition, and articles expanding on the research of bias. This toolkit also includes instructions for displaying the posters. The poster files are contained in a zip file that you can download from the link that was emailed to you. You can also request a copy of the downloadable materials on SITES Portal Page. https://www.sites.si.edu/s/topic/0TO4z0000011ag7GAA/the-bias-inside-us-educator-toolkit

If you're an educator interested in learning more about implicit bias and how it presents itself in educational settings, please visit *The Bias Inside Us* page "Learn More" and listen to Dr. Corey Yeager, as he defines unconscious bias through three webinars specifically for teachers. You will also find a link to the Smithsonian's Learning Lab platform, which features additional curriculum and teacher resources: https://biasinsideus.si.edu/learn-more

Please note that *The Bias Inside Us* may be used for educational purposes only. The Smithsonian Institution, SITES, and the name of the exhibition shall not be used in conjunction or connection with any fundraising or political event, or for any other purpose without prior written approval from SITES.

Poster Checklist and Hanging Order





















Printing, Mounting, & Installation

Printing

If you are printing your own copy of the discussion posters, the high-resolution design files can be downloaded from the website. Depending on your budget, we recommend the following:

- Print in full color to best convey the richness of the images and the graphic design.
- Use at least 80# cover weight paper to avoid wrinkles and tearing during handling.
- Print to a finished size of about 26.5"x 18.5" to ensure the best legibility of all poster text and captions.

Mounting and Installation

Hard copies of the ten posters received directly from SITES has been printed in full color on 80# cover weight Chorus Art silk paper. Each poster measures 26.5" x 18.5". Your mounting options range from thumbtacking them to your walls to dry mounting or framing them. The method you choose should reflect your anticipated use of the posters as well as your budget. However, for these posters, our recommended approach is to dry mount the posters for the most effective presentation.

Your first step will be to flatten the posters to help make mounting and installation easier: unroll the posters and lay them flat, face down on a clean surface with heavy books on them for at least twenty-four hours for best results.

Dry Mounting

Dry mounting forms a permanent bond between graphic material (the posters) and a backing material, such as illustration board, foam core board, or another lightweight substrate. Dry-mounting services are available from commercial framing shops and craft suppliers. They can also provide hanging options.

Framing

Standard metal section frames come in a variety of sizes. Do-it-yourself framing could cost as little as \$20 per poster from a retail store, while custom-made frames in wood or enameled metal may each cost \$100 or more. You may also frame dry-mounted posters without any glazing.

Film Lamination

You may wish to permanently protect the posters from the elements by laminating them, especially if they will be moved frequently. Many locations will have "laminating" listed online. In addition, many school systems have laminators or receive special rates from contract companies.

Hanging

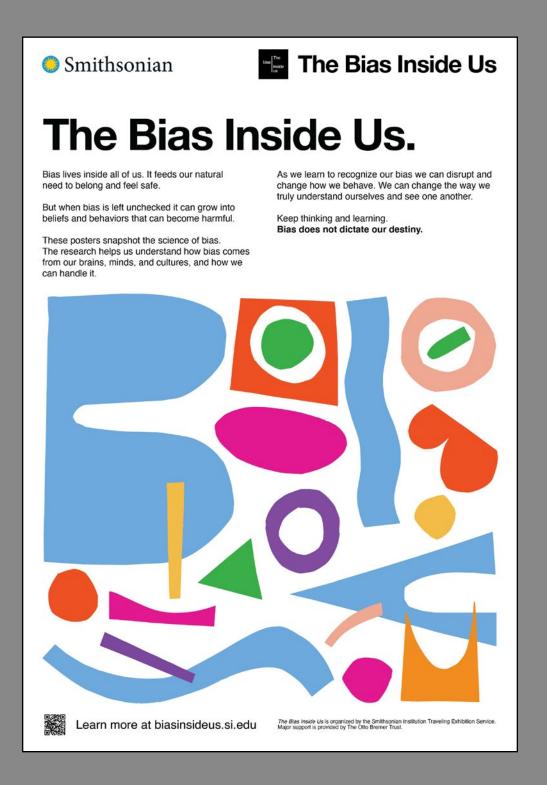
Any frame that you choose will have suggested hanging hardware. You may also attach dry-mounted or laminated posters to your walls using double-sided or foam tape, escutcheon pins or thumbtacks, or a hanging wire affixed to the back of the posters.

Installation

We recommend following the hanging arrangements shown in the "Poster Checklist" section of this toolkit.

Discussion Guide & Educational Resources

Poster 1: The Bias Inside Us



Poster 2: Do you know me? Really me?



Poster 2: Do you know me? Really me?

When we come face-to-face with differences—whether differences based on appearance or on background—we have many ways to deal with it. A first reaction might be to deal with difference by "othering," and wishing the difference away. We might think that anything not "like me" is something that is unknown, something to be afraid of, to avoid, or even to dislike. This first reaction is very common. But it is also a bias.

Bias means that we are relying on our assumptions—our first gut reactions—rather than the whole person who is really in front of us. We are not looking at all the facts and evidence. We are judging someone before we even know them.

It is important to understand that being biased doesn't mean you are mean, rotten, or violent. Being biased—relying on assumptions and jumping to conclusions—doesn't mean we are *bad* people. In fact, making quick and often biased decisions is part of how our minds and brains work quickly. What matters now is trying to see the many ways that quick, biased judgments can create problems for us and for others. Once we see bias, we can try to interrupt it.

Discussion questions:

- What does it mean to be biased?
- What does it mean to say that we can be both good and biased? How can someone be both?
- What are some reasons people may "other" people who look different from them?

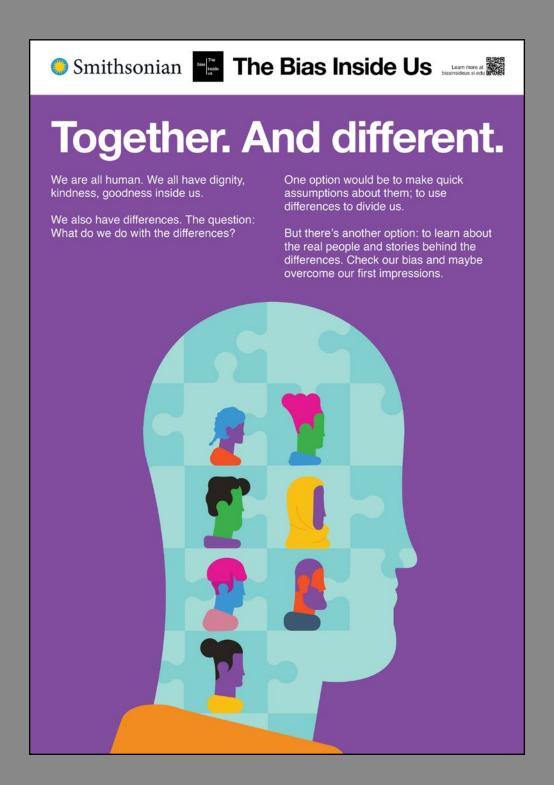
Optional activity:

- Play "The Monkey Business Illusion" and ask students to keep track of the number of passes made by the team in white T-shirts. Stop the video at 0:45, as soon as the screen shows "Did you spot the gorilla?" First, ask: How many passes did you see? Then ask: How many of you saw the gorilla? This video shows how we are biased by only seeing what we are looking for. When we don't allow ourselves to be open to what is in front of us and, instead, jump to quick conclusions, we are showing a bias. How do you think this plays out in the real world with real social groups?

Selected background science:

- Simons & Chabris, 1999. "Gorillas in Our Midst: Sustained Inattentional Blindness for Dynamic Events." Free PDF: http://www.chabris.com/ Simons1999.pdf
 - This paper reviews the "gorilla experiment," as it is famously known in psychology. If you did the activity, you will have experienced it firsthand already! The scientific idea behind the experiment is to show "selective attention"—when we are focusing on something else (e.g., counting the number of ball passes in a video), we are blind to other things that may be happening at the same time (e.g., a gorilla walking through the image).
- Tversky & Kahneman, 1974. "Judgment under Uncertainty: Heuristics and Biases." Free PDF: https://www2.psych.ubc.ca/~schaller/Psyc590Readings/TverskyKahneman1974.pdf
 - This foundational research paper reviews the science of how our minds make quick judgments based on past assumptions—a process called "heuristics." The Nobel Prize—winning authors describe experiments that demonstrate how our brains take shortcuts that cause us to miss what is right in front of us.
- Banaji & Greenwald, 2013. "Blindspot: Hidden Biases of Good People."
 - This book reviews the background research that led to the scientific study of "implicit bias", introduced by the authors who originally coined the phrase.

Poster 3: Together. And different.



Poster 3: Together. And different.

Every person in this world—regardless of gender, nationality, politics, race, religion—is human. Not only do we share the basic facts that make us human—we use language, and we have bones and blood and organs. But, even more importantly, we all share our basic humanity—we all have goodness, kindness, and dignity inside us.

Yet, each and every one of us is also different. We have different backgrounds, different appearances, different sets of beliefs. It can sometimes be difficult to recognize both of these facts at the same time. How can we see both what we share and what makes us unique?

These posters ask us all to consider how we can best understand, and even embrace, the many differences in the people around us.

When we see differences, we have a chance to take any number of paths. For example, an easy path would be to use the differences to drive people apart. Indeed, research in psychology and sociology has long shown that, when faced with even minimal differences—as minimal as wearing different colored shirts—we make quick, automatic judgments about the group that we like or dislike.

But there is also a harder, important, and worthwhile path: to appreciate differences and understand the strengths of different people. This path takes us to a place of seeing how people's differences create opportunities for new experiences, new friendships, and new knowledge.

Discussion questions:

- What does it mean to you to be human? What are the things that make you human?
- What are some of the strengths of differences and diversity? Why should we try to understand and embrace difference?
- What are some of the factors that can get in the way of embracing or understanding diversity?

Optional activity:

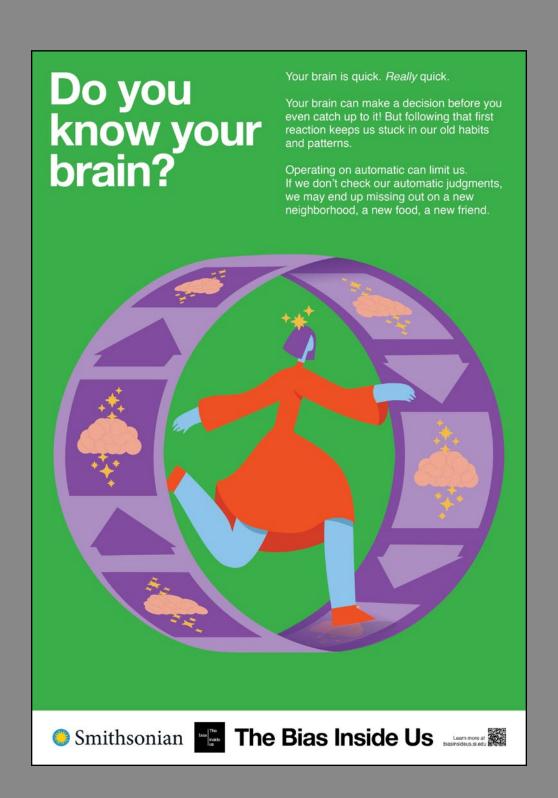
Listen to the poem "What do we do with a Difference?," by James Berry, animated and spoken here: https://biasinsideus.si.edu/online-exhibition/conclusion/

Selected background science:

Tajfel, 1970. "Experiments in Intergroup Discrimination." Free PDF: https://faculty.ucmerced.edu/jvevea/classes/Spark/readings/tajfel-1970-experiments-in-intergroup-discrimination.pdf

- This paper features the first "minimal groups" experiment, which showed that even minimal, arbitrary differences can result in intergroup discrimination. Participants were randomly assigned either to a group called the "Klee group" or to the "Kandinsky group" (the names were based on two famous painters). Then they were given a chance to discriminate by giving a certain reward to an in-group member (e.g., another participant from the Klee group) and another reward to an out-group member (e.g., a participant from the Kandinsky group). The researchers found that participants gave larger rewards (more points) to their in-group than to their out-group, even though those groups had been formed just a few minutes before!

Poster 4: Do you know your brain?



Poster 4: Do you know your brain?

There is a science behind why our brains and minds behave the way they do. The sciences of neuroscience and psychology study how our brains and minds developed over centuries to make really fast decisions and judgments.

It is often helpful to rely on these shortcuts in our brains. Quick judgments help us jump away from snakes or spiders, pull our hands away from hot stoves, and avoid other potential dangers.

But there's also a risk when we rely on shortcuts. Relying too much on our first reaction can mean we miss out on a more interesting experience. We may miss trying out a new food if we always choose the food we assume will be tasty. We may miss seeing a new park in a neighborhood because we automatically take a certain street. Or we may even miss meeting a new friend because we assumed we wouldn't get along with them.

By only taking shortcuts and making assumptions, we risk limiting our own experiences as well as the experiences of others.

Discussion questions:

- When might you have relied on a shortcut or an assumption?
- List the ways these shortcuts might have been helpful to you. Explain how those shortcuts may have hindered your experiences.
- How could relying on shortcuts harm other people?

Optional activity:

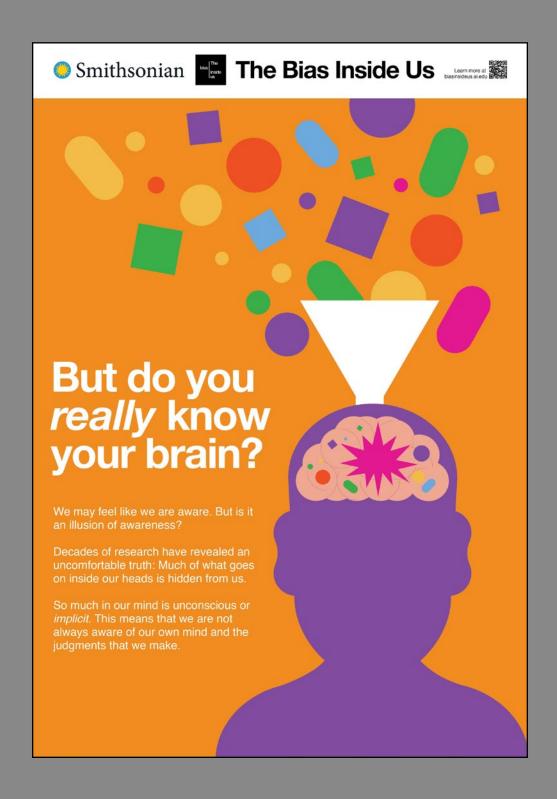
On The Bias Inside Us online exhibition, go through the interactive brain exercises in "The Science of Bias" (around the middle of the section): https://biasinside-us.si.edu/online-exhibition/the-science-of-bias/

Selected background science:

Amodio & Cikara, 2021. "The Social Neuroscience of Prejudice." Free PDF: https://www2.psych.ubc.ca/~schaller/528Readings/AmodioCikara2021.pdf

- This paper provides a recent overview of the many papers showing the neuroscientific basis of prejudice—that is, how prejudice can be said to show up even in brain signals. In particular, the paper reviews the role of the amygdala (a fear center in the brain) and the prefrontal cortex (a control center in the brain) in the experience and regulation of prejudice. The optional activity is a friendly introduction to these ideas.

Poster 5: But do you really know your brain?



Poster 5: But do you really know your brain?

We certainly cannot easily peek inside our own heads to see what is going on in our brains. This means that so much of what our brains and minds do every day is being done outside of our awareness. We are operating mostly on automatic, without being fully conscious and attentive to everything we do. This is very much like what happens when we are asleep: we are not aware of what our minds are thinking and feeling.

Biases exist without awareness too. When we rely on our automatic judgments, without stopping to think how they might affect someone, we are relying on our *implicit* biases. In contrast, when we say or do something that is intentionally biased, and we do so with full awareness and full control over what we are doing or saying, we are relying on our *explicit biases*. In other words, implicit biases are biases that are fast, less conscious, and less controllable than explicit biases.

Scientists can *measure* implicit bias. If I ask you how much more you like flowers than insects on a scale from one to ten, and you tell me your answer, that is a measure of bias. You are aware of it and able to tell me what you feel. However, imagine that I have you sort a bunch of pictures you consider positive or "good" and a bunch of pictures you consider negative or "bad" alongside images of flowers and insects as fast as you can. Then I can measure how fast you are at sorting the pictures when you have to pair good pictures with images of flowers versus when you have to pair good pictures with images of insects. Most people are much faster at pairing good pictures with flowers than good pictures with insects, and this tells us that they have an automatic, *implicit bias* where they like flowers more than insects.

Discussion questions:

- What does it mean for a bias to be *implicit* or *unconscious*? What does it mean for a bias to be *explicit* or *conscious*?
- What are some examples where you have seen, experienced, or enacted implicit bias?

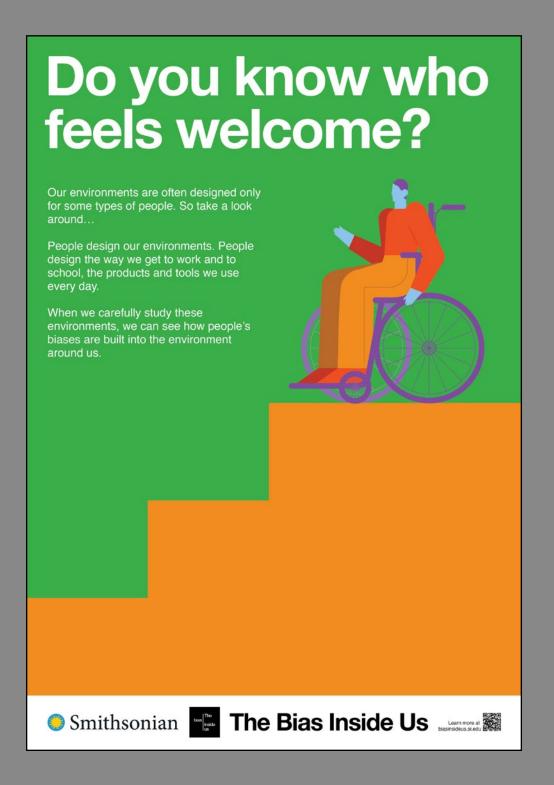
Optional activity:

- Take the Implicit Association Test (IAT), a timed computer activity. This is recommended only for high school students because it can sometimes be a complex task to remember all the instructions. The IAT can be taken here: https://implicit.harvard.edu/implicit/takeatest.html
- Watch "Peanut Butter, Jelly, and Racism." from The New York Times: https://www.nytimes.com/video/us/100000004818663/peanut-butter-jelly-and-racism.html?playlistId=100000004821064

Selected background science:

- Greenwald & Banaji, 1995. "Implicit Social Cognition: Attitudes, Self-Esteem, and Stereotypes." Free PDF: https://faculty.washington.edu/agg/pdf/Green-wald-Banaji-PsychRev_1995.OCR.pdf
 - This paper is the scientific origin of the term "implicit bias." It explains the background evidence for the operation of implicit bias in contrast to the more conscious and controlled explicit bias. The authors review experiments of how our minds often operate automatically, without conscious awareness.
- Greenwald, McGhee, & Schwartz, 1998. "Measuring Individual Differences in Implicit Cognition: The Implicit Association Test." Free PDF: https://faculty.washington.edu/agg/pdf/Gwald_McGh_Schw_JPSP_1998.OCR.pdf
 - This second paper explains how to measure implicit biases by looking at reaction time (or speed) for participants to associate pairs of concepts (e.g., flower-good/insect-bad) through a timed computer activity called the Implicit Association Test.

Poster 6: Do you know who feels welcome?



Poster 6: Do you know who feels welcome?

Bias is baked into our environments in many unexpected ways. We often can't see all the ways that bias is hidden around us.

In fact, bias does not only emerge when we see or speak with another person. Bias also emerges in the products we use and in how our environments are built around us—ranging from crayons and toys to stairs in front of a store. For example, for many years, crayons only came with a small set of colors to use for skin tone. Even today, toys are organized into mostly pink toys for girls and mostly blue toys for boys. And bias is also present when there are only stairs and no ramps to enter a store, preventing some people with physical disabilities from entering.

These kinds of products and situations reveal the assumptions and standards that are everywhere in our world. They show which skin tones we think are beautiful, which kids get to play with which toys, or who gets to move easily around the neighborhood. Because people design the products and structures all around us, human biases will also get built into products and environments.

Discussion questions:

- When you look around you, do you see examples of products or systems that make one group feel less welcome? What about in other places (e.g., at the grocery store, the bank, the park)? Do some places feel more welcoming than others, and why?
- Why do you think these less welcoming places haven't been changed?

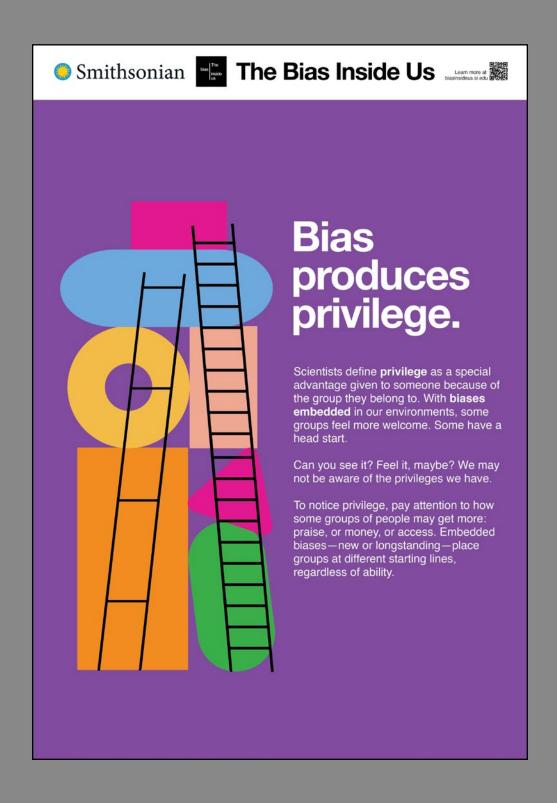
Optional activity:

- Explore the Bias IRL section of the The Bias Inside Us online exhibition, especially the flip cards on systemic biases in products: https://biasinsideus.si.edu/online-exhibition/bias-irl/
- Also on the online exhibition, in the Serious Consequences section listen to the personal stories from people who have experienced bias in all facets of life: https://biasinsideus.si.edu/online-exhibition/serious-consequences/

Selected background science:

- Kirby et al., 2020. "The Symbolic Value of Ethnic Spaces." Free PDF: https://journals.sagepub.com/doi/pdf/10.1177/1948550620913371
- Master, Cheryan, Meltzoff, 2015. "Computing Whether She Belongs: Stereotypes Undermine Girls' Interest and Sense of Belonging in Computer Science." Free PDF: https://depts.washington.edu/sibl/wp-content/uploads/2017/10/ Master Computing.pdf
 - Both papers discuss subtle ways that cues in the environment— specifically, the existence of dedicated "ethnic spaces" on campus (Kirby et al., 2020) and the existence of stereotypical science posters (e.g., of Star Trek; Master, Cheryan, & Meltzoff, 2015)—can shape biases and experiences. The experiments show that these subtle cues can signal who "belongs" (e.g., only a certain type of man in a science classroom) and, similarly, who does *not* belong.

Poster 7: Bias produces privilege.



Poster 7: Bias produces privilege.

Our differences—the languages we speak, our appearances, our genders, our family histories—mean that each of us will have different advantages and strengths, but also different disadvantages and barriers. *Privilege* is a word that captures the advantages we have simply because of the groups we belong to. Privilege means that someone is starting a few steps ahead—they might be able to see a good doctor and get treatment faster, or they might be given more attention in class and therefore seem to be more brilliant than others.

The tricky thing about privilege, like implicit bias, is that we may not see it immediately. We may think that every success we've had is only because of our hard work, or that every setback another person had is because they didn't work hard enough. But a closer look can show us that successes can also come from the fact that we started a few steps ahead thanks to our social class, our race, our nationality, or many other identities.

When we start to look around us, we can see how privilege is baked into the world around us and is present in our everyday experiences. Are you able to go into a store without being judged as a potential shoplifter? Do you see other people like you succeed on TV and in social media? Are you able to feel safe walking home? There common experiences build up, so starting "a few steps ahead" can eventually become "a few miles ahead," resulting in even larger differences between groups.

Discussion questions:

- What are some benefits that you might have received from privilege?
- Many people in the United States believe that "people can be successful if they work hard and have a strong work ethic." This is, in fact, the idea of the "American Dream." How does the concept of privilege change or challenge this idea?

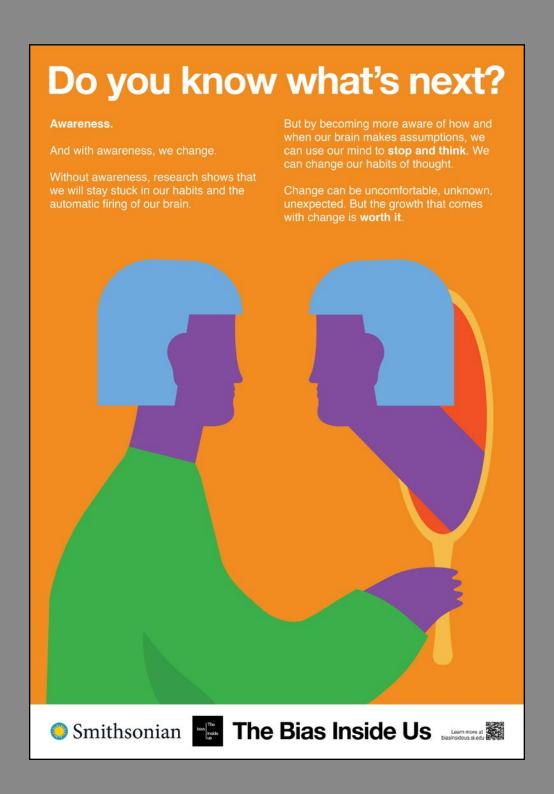
Optional activity:

- Work through the animation for privilege in *The Bias Inside Us* online exhibition "Serious Consequences" section (around the middle of the section) and the video about systemic bias in the classroom that creates a "school-to-prison" pipeline: https://biasinsideus.si.edu/online-exhibition/serious-consequences/

Selected background science:

- Cheryan & Markus, 2020. "Masculine Defaults: Identifying and Mitigating Hidden Cultural Biases." Free PDF: https://depts.washington.edu/sibl/wp-content/uploads/2020/08/Chervan-Markus-2020-Psychological-Review.pdf
- Phillips & Lowery, 2018. "Herd Invisibility: The Psychology of Racial Privilege."
 Free PDF: https://www.ltaylorphillips.com/publications/PhillipsLowery_HerdInvisibility 2018CDPS.pdf
- Case, Iuzzini, & Hopkins, 2012. "Systems of Privilege: Intersections, Awareness, and Applications." Free PDF: https://www.researchgate.net/profile/kim-Case-5/publication/263189530_Systems_of_Privilege_Intersections-Awareness-and-Applications.pdf
 - This series of papers discusses the ideas of privilege along many dimensions, including gender (Cheryan & Markus, 2020), race (Phillips & Lowery, 2018), and intersections of identities (Case, Iuzzini, & Hopkins, 2012). They review research showing how different identities have certain advantages today. For example, Cheryan and Markus review papers showing a "masculine default," in which men have historically been seen as the standard against which we judge other people, and around whom we have often organized our society.

Poster 8: Do you know what's next?



Poster 8: Do you know what's next?

So much is changing in the world right now. Today, there is great opportunity to improve bias in our world and in ourselves. In fact, we can start today by becoming more self-aware and learning about the ways that our brains jump to conclusions, or the ways that we benefit from privilege. Through self-awareness and looking inwards, we can start to catch ourselves before we judge others simply because of their identities.

In learning about bias and the many tricky ways it can appear in our world, we can also begin to confront the systems and structures that continue to push down some groups and favor others.

Of course, if you've ever tried to make a big change or tackle a big problem, you will know that change is hard. There will be bumps along the road, there will be conflict, and there will be confusion. But just because it's hard doesn't mean it isn't important. And improving awareness is important. By improving awareness and learning, we can make sure that everyone is treated with equal humanity and equal dignity. Because everyone is, after all, human.

Discussion questions:

- What difficult problems or changes have you tackled in your life? Are there any strategies that you can share that made the change easier? How did you persist through the difficult change?
- What are some new insights about yourself that you achieved through these posters? What did you discover about your own biases or identities?

Optional activity

- Increase self-awareness through the "Twenty Questions" exercise in *The Bias Inside Us* online exhibition "#RetrainYourBrain" section: https://biasinsideus.si.edu/online-exhibition/retrain-your-brain/
- Work through the slideshow of historical youth-led movements to remind students that, although they are young, they can also make a difference: https://www.kqed.org/lowdown/30275/the-kids-are-all-right-a-timeline-of-youth-led-movements-that-changed-the-nation
- Additional resources for getting students involved in social change: https://www.nytimes.com/2017/05/18/learning/lesson-plans/guest-post-ideas-for-student-civic-action-in-a-time-of-social-uncertainty.html

Selected background science:

- Charlesworth & Banaji, 2019. "Patterns of Change in Implicit and Explicit
 Attitudes I. Long-term Change and Stability from 2007 to 2016." Free PDF:
 https://tessaescharlesworth.files.wordpress.com/2019/01/charlesworthbana-ii-2019-change-1-publishedms.pdf
 - Charlesworth and Banaji provide new evidence that even deep-rooted implicit biases in society can change (and have already been changing).
 The fastest change is found in implicit biases about sexual orientation (anti-gay/pro-straight), with relatively slower change found in implicit race bias.
- Pedulla, 2019. "What Works?" Free PDF: https://www.umass.edu/employ-mentequitv/sites/default/files/What Works.pdf
 - In this edited volume, researchers across the social sciences discuss effective strategies known to change bias and discrimination in organizations and societies.

Poster 9: Bias is human.



Poster 9: Bias is human.

The posters are a starting point for a discussion of the scientific research, definitions, and real-world impacts of bias. From this beginning, there is an opportunity to continue learning and growing your awareness of how bias shows up around you and in you. After spending time with, we encourage you to write down a commitment to learning about your contributions to bias.

Suggested activity:

- Write down a one- or two-sentence commitment to learning about and confronting bias. For example, "I commit to asking for feedback on my actions and behaviors from others and changing my actions and behaviors following that feedback", or "I commit to learning about others' stories and listening before making my judgment." Be Creative! Find a commitment that feels reasonable for your stage of learning right now.
- Next, put that paper in a visible place where you will see it every day for the next week. After a week, check in to see if you are still following your commitment to learning. Be compassionate with your learning process—uncovering bias can be uncomfortable. At the same time, seek to hold yourself accountable and strive to be the best learner you can be.

Poster 10: What can we do about bias? A lot...



Poster 10: What can we do about bias? A lot...

Start the conversation about implicit bias. Begin to explore ways to retrain your brain and spend some time exploring the online, interactive exhibition.

https://biasinsideus.si.edu/online-exhibition/



Credits

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Smithsonian Institution Traveling Exhibition Service (SITES)

SITES has been sharing the wealth of Smithsonian collections and research programs with millions of people outside Washington, D.C., for more than 70 years. SITES connects Americans to their shared cultural heritage through a wide range of exhibitions about art, science and history, which are shown wherever people live, work and play. For exhibition descriptions and tour schedules, visit sites.si.edu.