Implicit Bias Series
PART 1: What Is It and Why Does It Matter?

Implicit biases are subconscious assumptions about people of different races/ethnicities, cultures, nationalities, religions, sexualities, gender identities, abilities, etc., that can influence how a person perceives of and/or interacts with someone else. Within a higher education context, these biases often appear in the form of harmful stereotyping, particularly when it comes to perceived academic ability, identity, or viewpoint (Ambrose et al., 2010). For example, some instructors may unconsciously believe that certain groups are not as capable as others, which may unconsciously influence classroom interactions.

Experts Define Implicit Bias
In their 2017 State of the Science Report, the Kirwan Institute defined implicit bias as: "the attitudes or stereotypes that affect our understanding, actions, and decisions in an unconscious manner. Activated involuntarily, without awareness or intentional control. Can be either positive or negative. Everyone is susceptible." (Kirwan Report, 2017, p.10). Though implicit in nature, these biases do not necessarily align with explicit beliefs nor to positions we may explicitly endorse (Kirwan Report, 2015; Beattie, et al., 2013). All of us can engage in this type of "unthinking discrimination" without even being aware (Wilkerson, 2013).   Still, a sizeable amount of research shows, implicit bias has the potential to impact behavior (Keng et al., 2012), yet is malleable and can be "unlearned" (Dasgupta, 2013; Roos, et al., 2013).

Implicit Biases, Inequalities, and Cognitive and Social-Psychological Processes
In society at large, inequalities are created and reproduced via two mechanisms: (1) the allocation of people to social positions and (2) an institutionalization of practices that allocate resources disparately across these positions. Massey (2007) explains how social classification operates on both a psychological and social level. Cognitively, we construct myriad categories in order to classify individuals. Our brains are wired to constantly evaluate and categorize the stimuli we regularly observe. The conceptual categories into which they are sorted are known as schemas. While this in-group / out-group sorting is mostly automatic and unconscious, our implicit biases generally favor the groups to which we belong (Reskin, 2005). Common forms of bias include race, gender, age, size, and ability. Unconscious bias can also arise from differences in religion, sexual orientation, social class, and hierarchical status in an organization.

Recent neuroscience research on implicit perception of social categories finds evidence to suggest that social perception works more as an interactive process, whereby visualizing signals the recognition of a social category which then activates higher level cognitive processes to connect to our own attitudes, beliefs, or stereotypes. Research has further shown that priming subjects can actually bias their initial perceptions (Cassidy & Krendl, 2016). Terbeck et al. (2016) investigated the role of norepinephrine — a stress hormone — in social cognition, both cognitively and physiologically via its connection to such basic emotions as anger, fear, and happiness. The authors found that these emotions, a byproduct of the release of norepinephrine, influence social judgments and thus may directly influence such judgments as implicit social attitudes and in-group bias.

Psychological work then plays out in the social world via boundary construction. Once established, boundaries are constantly negotiated and/or reinforced through interactions between in-group and out-group members. It is at this social-relational level that variation in status (both within and between groups) manifests. Status matters because beliefs about social differences can stabilize inequality, evoke perceptions of differences, and become a sustaining force. Widely-shared cultural beliefs exist for all types of social groups (e.g., social class, race, gender, educational level, age). They may lead to generalizations of worth and competence about groups but can also be misapplied to individuals.

Sociologist, Cecilia Ridgeway, asserts that these cultural status beliefs drive inequalities, first, by shaping expectations for ourselves and others and, then, through the resulting actions in social contexts (2014). Beliefs about social differences can bias evaluations (including self-evaluations) about competence and

behavior without much conscious awareness. They also bias associational preferences (potentially leading to segregated social networks), whereby both in- and out-group members tend to prefer higher-status groups. Lastly, inequalities can evoke resistance behaviors (e.g., higher-status groups defend their position) against members of disadvantaged or less-privileged groups.

Classroom Implications of Implicit Bias
Psychological and social-relational processes intersect in the classroom. Our unconscious and implicit biases become tangible and visible when they manifest themselves in actions or behaviors. For example, at the beginning of courses, certain students may be given priority positions as team leads or undergraduate research assistants based on privileged statuses (e.g., race/ethnicity, gender, etc.). The unconscious (or implicit) belief, while incorrect, is that more-privileged groups are more qualified. In this example, an instructors' implicit biases manifest and reproduce inequity in that their behavior reinforces the positions and status of more privileged groups. Another common example of implicit bias, when an instructor consistently calls upon male students, or students of a particular race/ethnicity, to respond to questions. Though the instructor may be unaware of their actions, their behavior suggests implicit bias related to male students, or students of a particular race/ethnicity—they speak with greater authority and have more important things to say—which disregards and marginalizes the contributions of other students. Like these examples illustrate, when behaviors are delivered in different ways to different groups, they contribute to inequities. Instructors and students both can demonstrate such behaviors or exhibit differential treatment. (For more on this, see our Microagressions series.)

The cumulative effects of any and all inequities can translate into both lasting and damaging effects in and out of the classroom:

- The potential and talent of all students is marginalized and under-utilized.
- Recruitment into specialized programs, research assistantships, and mentoring opportunities is reduced.
- Retention in classes or fields-of-study is affected.
- Creativity and growth are stifled.
- Team work and collaboration are inhibited.

Since both implicit and explicit beliefs, biases, and behaviors have potential to create new and perpetuate existing inequalities, it matters for our students that, as institutional gatekeepers who control access to potential future opportunities, we seek to examine our own beliefs, biases and behaviors. With a goal of minimizing the effects of implicit bias, part 2 of this series discusses how instructors can begin to counter biases internally and interpersonally. Part 3 describes ways in which instructors might extend these countering strategies to the classroom.

Additional Resources
- For training videos from UC Davis Human Resources, visit this site
- For resources and videos on Inclusive environments from Carnegie Mellon University, visit this site
- For more on unconscious bias from Vanderbilt University, visit this site
- For video and the Implicit Bias Module series from Kirwan Institute, visit this site
- To read more about micro inequities, visit this site

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Implicit Bias Series
PART 2: Creating Awareness and Reducing Implicit Biases

Our implicit cognition matters for our students, and so by its unconscious nature, it is a challenge to recognize and measure. Many are generally weak at introspection, so it is unsurprising that we are often unaware of our biases. Even when aware, research shows that self-reports of bias are both unreliable (Greenwald & Banaji, 2007) and often influenced by social desirability concerns (Amodio & Devine, 2009; Dasgupta, 2013). With such restrictions, researchers developed assessments that employ multiple methods, ranging from physiological approaches, to priming methods, to response latency measures (Kirwan Institute, 2015).

Recognize Your Own Implicit Biases
To interrogate your own implicit biases is to explore free tools developed by Harvard University's "Project Implicit." The Implicit Association Test (IAT) is one accessible method that measures associations between photos and words, conditional on response times. These tests may reveal your own subconscious assumptions about students that might unintentionally influence the ways you interact with them. Despite ideological debates related to implicit bias, a significant body of research substantiates the validity and reliability of the IAT (J. Kang & Lang, 2010). Being aware of our biases is the first step towards reducing bias, but what strategies help us to realize this goal?

Strategies to Reduce Implicit Biases
Given that implicit biases are socially conditioned, they are modifiable and can be unlearned. Much study has been dedicated to the process of debiasing, a term that researchers use to describe an approach to countering our existing biases. Debiasing works through deliberate and focused construction of new mental associations sustained over time (Devine, 1989). With repetition and training, research shows the newly learned implicit associations can stabilize (Glock & Kovacs, 2013).

Evidence suggests that the following strategies have particular potential for success:

- **Education efforts** aimed at creating awareness of our biases, such as those already underway in the fields of criminal justice and health care (Kirwan, 2015)
- **Counter-stereotypic (stereotype replacement) training**, when individuals are trained to create new associations through visual or verbal signals (Devine et al., 2012; J. Kang et al., 2012)
- **Exposure to counter-stereotypic individuals**, whereby new associations are built when individuals are exposed to counter-stereotypic images such as male nurses or female scientists (Devine et al., 2012; Dasgupta & Asgari, 2004)
- **Perspective taking,** when individuals consider alternative viewpoints and recognize a diversity of perspectives (Devine et al., 2012; Benforado & Hanson, 2008)
- **In-group and out-group contact**, where members of both groups are brought together in cooperative, rather than competitive, environments. Such intergroup contact tends to reduce intergroup prejudice (Devine et al., 2012; Peruche & Plant, 2006).

Underpinning all these strategies is awareness. Recognizing the implicit biases about your own students and understanding some basics about debiasing are essential first steps in creating an inclusive environment. Part 3 of the series describes practical ways to integrate some of these techniques into instructional practice.

Additional Resources
- For resources to counter bias (and links to videos for students) from University of Michigan, visit this site

- For UC Berkeley's Implicit Bias series, visit this site

- For more debiasing techniques, visit this site

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Implicit Bias Series
PART 3: Countering and Preventing Bias in the Classroom

Experts suggest many strategies for applying debiasing techniques to instructional practice. For more comprehensive lists of strategies, see this Tanner 2013 article on structuring the classroom and/or these University of Michigan checklists for inclusive teaching principles. Apapted from these resources, the following table organizes some of the techniques as applied to classroom climate, course curriculum, and teaching practices, respectively. (For more on this, see our Inclusive Practice series.)

Considerations for Countering Bias and Promoting an Inclusive Classroom Climate
• Examine your personal assumptions of the students' background, prior knowledge, and experience • Demonstrate high expectations for *all* students with an authentic belief that *all* can succeed • Learn all students' names and encourage them to address each other by name • Actively monitor your class for potential stereotype threat and broad generalizations • Create an environment prioritizing a sense of belonging (e.g., where multiple groups feel "connected") • Cultivate connections between students, the discipline, and scholarly and professional communities • Ensure that students have an awareness of and access to campus resources that support their unique identities • Maintain a classroom free from microaggressions and address microaggressions when they occur • Facilitate a space where all classroom exchanges are tolerant and respectful (e.g, norm setting) • Be transparent about instructor and student roles in the classroom, discussions, and activities and communicate them explicitly and consistently throughout the quarter (e.g., during the first day of class, in the syllabus, etc.) • Acknowledge the unique identities, experiences, strengths, and needs of your students, embracing student diversity as an asset and celebrating the physical and perceived differences (e.g., a safe space where differences are not only respected, but also honored and valued)
Considerations for Countering Bias in the Curriculum
• Acknowledge, respect, and make multiple identities visible and represented in course materials • Emphasize the range of identities and backgrounds of experts who have contributed to your discipline • Diversify readings, videos, and visuals so as not to marginalize students through content— powerpoint slides are a great place to include diverse examples • Be transparent through clear communication of norms, expectations, assignments (see Tools for Revising/Creating your Own Transparent Assignments), and evaluation criteria (e.g., use of rubrics) • Present course material using a myriad of modalities for greater student access • Plan learning activities that connect to students' prior knowledge and clearly communicate the learning objectives
Considerations for Countering Bias via Teaching Practices
• Ensure that you ask students to speak only for themselves, not on behalf of an entire group • Design learning activities that are more often cooperative, as opposed to competitive • Intentionally develop group projects where all students have an equal opportunity to participate • Structure class interactions by providing goals, procedures, and processes to ensure they don't reinforce existing patterns of privilege • Ask students to identify concrete observations about content (e.g., describe a photo, quote or diagram) before proceeding to analytical questions

Additional Resources
- For more teaching and learning resources from University of Michigan, visit this site

- For guidelines for discussing incidents of bias from University of Michigan, visit this site

- For an Inclusive Pedagogy Framework from the Center for Integration of Research, Teaching, and Learning (CIRTL), visit this site

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