Implicit bias (also known as unconscious bias) represents the “attitudes or stereotypes that affect our understanding, actions, and decisions in an unconscious manner” (Kirwan Institute for the Study of Race and Ethnicity, 2018). Implicit biases exist outside our awareness and impact how we think and behave. Most people hold implicit biases related to identity groups (e.g., gender-based groups, racial/ethnic groups; e.g., Wilson & Scior, 2014). These biases often are based on inaccurate, stereotypical messages we have received about various groups of people (Kirwan Institute, 2018). Even if we believe that all people should be treated equally, most of us have implicit biases for and against certain groups (Baron & Banaji, 2006).

Even small implicit biases can have profound, negative impacts on the experiences of marginalized groups of people (Greenwald et al., 2015). Researchers have documented bias in the quality of recommendation letters that are written for various groups of people (Trix & Psenka, 2003). For example, letters of recommendation for residency applicants tend to describe White and Asian applicants as more achievement-oriented and competent than Black and Latinx applicants (Grimm et al., 2020). Bias is also present in the evaluation of candidates for jobs. For instance, men are rated higher than women when applying to male-dominated jobs (e.g., managers at banks, police officers; Koch et al., 2015). Bias is also found in the peer review process for scientific papers and grants (Asplund and Welle, 2018; Bornmann et al., 2007).

To reduce the impact of implicit bias, this anti-racism action guide includes: (1) a specific action step related to examining our own implicit biases; (2) recommendations for reducing the impact of bias when writing recommendation letters, evaluating and interviewing applicants, and during peer review of research papers and grants; and (3) pertinent resources.

**ACTION STEP**

Given the impact of implicit bias on the opportunities and success of marginalized groups, we must recognize that we have implicit biases and be intentional in preventing these biases from affecting our decisions and behaviors. One step related to examining our implicit biases is to take the Implicit Association Tests (IATs) at https://implicit.harvard.edu/implicit/takeatest.html. Each IAT takes 10-15 minutes to complete, and multiple IATs can be completed focused on different identity groups. After taking an IAT, it is important to develop and implement an action plan related to the group(s) that you may be the most biased about. In addition, you can review and follow the recommendations below for reducing implicit bias in the workplace.

**BEST PRACTICES FOR AVOIDING BIAS IN THE WORKPLACE**

Minimize Bias When Writing Letters of Recommendation
Minimize Bias When Interviewing and Evaluating Candidates

- Participate in your institution’s unconscious bias training programs related to candidate interviewing and hiring.
- Reconsider traditional metrics to grant interviews (often based on scores, awards, recommendations).
  - Note that such metrics negatively impact under-represented communities in medical/graduate school interviews (Nwora et al., 2021).
- Consider an initial screening of candidates via telephone to eliminate first impressions bias.
- Include other people in the screening process to reduce or balance your biases.
- Be mindful of and provide resources such as interview rooms with adequate telecommunication and webcam capabilities (Nwora et al., 2021).
- Use highly structured interviews that include elements such as using the same set of questions for all applicants, sticking to the same wordings for questions, using behavioral-based interview questions (e.g., describe work-related problems).
  - Note highly structured interviews are associated with less racial/gender and other biases in ratings than unstructured interviews (de Kock & Hauptfleisch, 2020).
- Keep in mind that underrepresented individuals may tend to undervalue their professional journeys and accomplishments.
- Make efforts to audit and mitigate your implicit bias throughout the interview process (e.g., questioning assumptions or conclusions made, considering your privilege, stereotype replacement, counter-stereotype imaging).
- Apply objective evaluation criteria and behavioral markers in grading responses to minimize bias (University of Florida Human Resources; see below).
- Assess each candidate equitably, identify strengths first for every candidate and contextualize strengths and weaknesses with information from their personal statement and letters of recommendation.
- Acknowledge we are all more likely to seek out and select people who reflect our beliefs, practices, professional pathways, and cultures.

Minimize Bias When Reviewing/Evaluating Applications (grants, recruits) and Papers
• Be up to date on efforts to advance equity, diversity, and inclusion in the peer review process (e.g., NIH CSR’s Commitment to Advancing Equity, Diversity and Inclusion in Peer Review)

• Be informed about and participate in training processes designed to raise consciousness about and mitigate the influence of unconscious/implicit bias in peer review
  o Note that NIH has implemented training of reviewers and review panel chairs to help ensure that grant applications receive objective, fair, and timely reviews free from inappropriate influences and has developed standardized materials

• Be mindful that as scientists, we have a personal responsibility to address bias in our decision-making processes (i.e. decisions need to be based on objective factors), which entails a recognition that women and people of color have been impacted by bias throughout their careers and an appreciation that this bias requires active intervention (e.g. Asplund and Welle, 2018)
  o Take the Implicit Association Test
  o Go through implicit bias training
  o Be self-aware and learn to recognize bias in you and others: frequently re-evaluate your judgments for influence of unconscious bias (e.g. ask yourself: am I evaluating the application based on what is presented, or did I make assumptions based on the reputation of the institution/investigator?; did I use similar vocabulary for majority and underrepresented minority applicants?)
  o Change potential preexisting internal images: think of non-stereotypical leaders and pioneers that you admire
  o Be part of the solution
    ▪ Be a role model (i.e. use inclusive language; seek diversity in your team and committees; empower everyone equally; raise awareness; be an advocate for valuing diversity in science and speak up whenever you observe bias)

RESOURCES

Learning More about Implicit Bias
• Kirwan Institute for the Study of Race and Ethnicity at The Ohio State University: https://kirwaninstitute.osu.edu/implicit-bias-training
• UCLA’s Equity, Diversity, and Inclusion Resource: https://equity.ucla.edu/know/implicit-bias/

Writing Letters of Recommendation

Interviewing and Evaluating Candidates
• Avoid bias during interviewing/hiring: https://hr.uw.edu/diversity/hiring/checklist-for-interviewing-hiring-committees/
• Biases that could occur in interview situations: https://uwosh.edu/hr/wp-content/uploads/sites/90/2018/04/Bias.pdf; http://training.hr.ufl.edu/resources/LeadershipToolkit/transcripts/Identifying_and_Avoiding_Interview_Biases.pdf
• Virtual residency interviews: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7402105/

Conducting Peer Review
• https://www.niaid.nih.gov/grants-contracts/unconscious-bias-peer-review
• https://www.niaid.nih.gov/sites/default/files/Minimizing-Unconscious-Bias.pdf
• https://diversity.nih.gov/sociocultural-factors/implicit-bias
• https://www.csr.nih.gov/reviewmatters/2021/03/03/csrs-commitment-to-advancing-equity-diversity-and-inclusion-in-peer-review/
REFERENCES


