

Addressing discrimination and diversity in ecology is not just about implicit bias

To the Editor — Minority researchers (across gender, race, sexuality and other dimensions) face barriers in hiring, pay and publication rate^{1,2}. While responses to the paper ‘100 articles every ecologist should read’³ admirably call out discrimination in ecology^{4,5}, I fear that the focus on attributing discrimination to ‘unconscious’ or ‘implicit’ bias is limited, or even counterproductive. Indeed, recent evidence suggests that changing implicit bias has only small effects on explicit bias, and little to no effect on behaviour⁶.

I suspect that any list of papers that truly represents the foundation of current ecological understanding will disproportionately reflect the work of white men, and that historical explicit discrimination is a better explanation for this than current implicit bias of individuals. Furthermore, suggesting that a list of important papers should reflect diverse groups within ecology may provide symbolic importance to minority scientists at the expense of overlooking historical and institutional problems that have practical and material consequences for minority scientists.

There is a rich literature connecting the history of science with discrimination. Modern science spread from Europe to aid imperial activities and enrich colonizers at the expense of colonies. It also reshaped the worldviews of colonized populations, sometimes through an idealized search for truth that entirely dismissed indigenous worldviews⁷. European imperialism also spread other cultural norms that led to blatant discrimination against women and minorities in science academies and universities^{7–10}. Current research suggests that academic retention in minority groups (from students onwards) is still affected by perceptions of racial tolerance on campus and financial concerns¹¹, creating a self-reinforcing system where academic

positions are still overwhelmingly white. These historical and structural discriminations have not just disadvantaged minorities, but have also disadvantaged ecology as a study. For example, I believe that the recent move to consider ecosystems as coupled human and natural systems would have occurred much sooner if diverse perspectives were allowed to shape ecological theory to a greater degree, as considering humans a part of nature is endemic to many indigenous philosophies whereas humans were considered apart from nature for so long in European philosophies (for example, see ref. ¹²).

Focusing the conversation on implicit bias overlooks the more disturbing but demanding concern: explicit discrimination. Academia is joining the #metoo movement with a database of sexual harassment (www.theprofessorisin.com). To any researcher who has been affected by sexual harassment in academia or knows anyone who has, the database trends are largely unsurprising: most frequently, graduate students are sexually assaulted or harassed by older male professors. I, as well as many minority students and early career researchers I know, have personally experienced overtly discriminatory acts by senior researchers and colleagues. These include (but are not limited to) professors assuming that ethnic minority students follow superstitions; female colleagues being ignored and their attire scrutinized during workshops; female colleagues being persistently sexually harassed and pursued by older professors; lesbian, gay, bisexual and transgender researchers facing homophobic jokes so that their supervisors know they ‘have a sense of humour and will fit in’; and indigenous researchers facing professors who congratulate them on their achievements despite their heritage. Almost invariably, the perpetrators of these discriminatory acts have been white men, and in every case the

perpetrator was a distinguished professor. These incidents often go unreported because of a perceived lack of consequences for the perpetrator and a fear of reprisal for the minority researcher.

Truly addressing discrimination and promoting diversity in ecology as a field will require tackling historically ingrained institutional biases and the lack of consequences for explicit acts of discrimination and abuses of power. The implicit bias framework forces the discussion away from ‘how do we empower minorities?’ and changes it to ‘are researchers biased?’ Given the continued dominance in ecology of white men, asking if researchers are biased ensures that we keep talking predominantly about white men. □

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Competing interests

The author declares no competing interests.