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Participants act out a sketch at a workshop designed to encourage researchers to step in when they see hurtful behaviour in the workplace.

BYSTANDERS CAN PUSH BACK ON BIAS AND BIGOTRY

Bystander-intervention programmes aim to train scientists in how to disrupt bias and harassment. **By Sara Reardon**

When Sunita Nandihalli was a psychology graduate student at the University of Wisconsin-Madison, they and an undergraduate intern found themselves in an lift with a man who seemed fascinated with the intern. She was multiracial, and he repeatedly quizzed her about her hair.

Nandihalli, a queer person of colour, had experienced similar obnoxious comments and stepped between the two of them, asking the stranger about his day and where he was going. “I had to take the intern’s safety into account,” they recall.

Nandihalli knew what to do because of

ADVANCEGeo, a project that trains researchers in how to intervene when they see bias and harassment in the geosciences. Nandihalli had lent their expertise to the project to adapt ‘bystander-intervention training’ programmes designed for office workplaces and make them relevant to research and academic settings.

Funded by the US National Science Foundation and directed by three professional societies, ADVANCEGeo is one of a growing number of bystander-intervention training programmes at research and academic institutions¹. They aim to stop harassment in its tracks and create a more welcoming workplace environment – particularly for women and

minoritized people, who are leaving science, technology, engineering and mathematics in disproportionate numbers. A landmark 2018 report on sexual harassment in the sciences by the US National Academies of Sciences, Engineering, and Medicine (see *Nature* 558, 352–353; 2018) called for more bystander training in scientific workplaces. Research suggests that such programmes can improve the likelihood that bystanders will intervene, particularly when the training includes role play that helps people develop confidence to act.

“In the past, a lot has focused on raising awareness on what bias and sexual harassment looks like, but we know that’s not enough,” says

Stephanie Goodwin, a social psychologist at Wright State University in Dayton, Ohio. The #MeToo movement has highlighted the inadequacy of many mandatory training programmes intended to prevent sexual harassment. It has also raised awareness of institutional hurdles that hinder reporting and allow harassers to remain in the workplace. Offenders not only need to recognize and change their attitudes, she says; they also need to hear from bystanders that they are acting in ways that are harmful or hurtful. These third parties can disrupt incidents by confronting or distracting the offender, as Nandihalli did, taking the onus off the targets.

Bystander training uses role play, virtual-reality (VR) scenarios and group discussions to create a positive environment rather than singling out any individual as a bad person. It's most prevalent in the United States, where a 2013 federal law requires campuses to provide all students with harassment education, including an element of bystander training.

The idea has its limitations: confronting a more senior co-worker can have repercussions, and some targets might not want another person coming to their aid. It is also hard to assess whether training reduces instances of bias and harassment. But learning how to intervene respectfully, and normalizing conversations around bias and harassment, can be effective ways to improve a work environment. "If no one ever speaks up or disagrees publicly, then targets learn that we tolerate and accept those moments of bias," Goodwin says.

Shifting workplace culture

Goodwin runs InclusionWorks, one of several companies that deliver bystander-training workshops at US institutions. Participants practise ways of diffusing situations, with actors playing both offenders and targets. This might involve stepping in to disagree with the offender, using humour to redirect the conversation, or expressing how the behaviour harms the workplace environment. Trainees try various options to work out which ones are best suited to different scenarios, such as those involving a professor and a student, or people of different ethnicities.

Most workshops held at universities and conferences are voluntary, which raises concerns that they 'preach to the choir' by attracting only people who care about the topic. Actual offenders will probably skip them. Goodwin acknowledges the criticism but adds: "Even if you only have the choir in the room, if they can sing in tune and carry the song out to the hallways, then that can effect change in culture, too."

That community approach is what makes bystander training effective, says Sharyn Potter, a sociologist at the University of New Hampshire in Durham. "You're not going to target perpetrators, but by targeting the



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Virtual-reality systems can help to make bystander-intervention training feel more authentic.

community you're making it harder for the perpetrators."

A gradual shift towards new behavioural norms can be more effective than singling out individuals out as perpetrators – accusations that might be met with denials and hostility. Billy Williams, executive vice-president of diversity, equity and inclusion at the American Geophysical Union (AGU) in Washington DC, says that most people are well intentioned and genuinely might not know that their behaviour

"If no one ever speaks up, then targets learn that we tolerate and accept those moments of bias."

is offensive. "If I'm constantly being corrected by some of the grad students or faculty members who've had this training, I'm going to take note," he says.

Shannon Rawski, an organizational behaviour researcher at Western University in London, Canada, says that many conventional anti-harassment programmes have failed because they don't offer that collective correction model. Instead, trainees are able to see themselves only in the role of victim or aggressor, and they receive information about legal consequences, which can feel threatening. "People don't learn very well under threat," she says.

In unpublished research, she asked volunteers to participate in one of two anti-harassment training programmes. Both had the same content, but one was a standard legal-compliance programme, whereas the other was a narrative story in which the trainee was cast as a bystander. The trainees who took the narrative programme felt less threatened

and reported being more likely to talk to others about harassment.

Goodwin adds that another tenet of this training is to focus criticism on the behaviour, not the person. That's especially true when it comes to microaggressions: small comments or actions that are hurtful regardless of the intentions. Repeatedly being on the receiving end of microaggressions can be harmful and exhausting. "They leave the person thinking, 'Am I being too sensitive?'" says Nicole Jacobs, associate dean for diversity and inclusion at the University of Nevada in Reno.

Jacobs and her colleagues have developed a training module for medical students that contains different sets of steps for bystanders, targets and microaggressors. Instead of immediately denouncing the offender as racist, sexist or homophobic, she says, bystanders and targets should start a dialogue by directly asking them what was meant by their comment. Doing this "allows people to maintain their reputations and helps to build allyship," she says. (For more tips, see 'A bystander's toolbox').

By scientists, for scientists

Daniel Hart and Cristian Morales, graduate students in engineering at Boston University (BU) in Massachusetts, similarly avoid casting individuals as aggressors in the WISEGuys programme, a bystander scheme launched in 2020. A companion group to BU's Graduate Women in Science and Engineering organization, WISEGuys teaches male graduate students how to be allies. "It's sort of a touchy statement to say that men need to do the most work because they're the most responsible" for problematic behaviour, Hart says – but, in his opinion, men tend to be more receptive when the training is done by male peers.

Hart and Morales point out that most men are not harassers and want to help create a

welcoming atmosphere for everyone. Engaging this majority as bystanders sends a stronger message to the few offenders that their behaviour is offensive to everyone, and not just to women or marginalized groups, they add. The WISEGuys' programme comprises four workshops, each involving different scenarios and different power dynamics between perpetrator, target and bystander.

ADVANCEGeo takes a similar approach. Trainers on campuses or at professional conferences present a workshop to rehearse scenarios involving bias, harassment, micro-aggressions and insults, giving trainees an opportunity to practise intervention skills. Goodwin says that although people want to do the right thing, they are much more likely to speak up if they have practised the situation beforehand.

"The more the scenarios resonate – 'I've seen that happen before' – the more engagement there is and the more opportunity to change attitudes and behaviour," Potter adds.

ADVANCEGeo settings are played out in conferences, retreats and fieldwork sites – places where harassment is most likely to occur. The workshops are part of a suite of changes that organizations such as the AGU have instituted in recent years. These include codes of conduct at scientific conferences and clear mechanisms for reporting bad behaviour during field excursions. "People tend to believe the same rules don't apply if you're away from campus," Williams says.

Trainees need to learn how to handle harassment in difficult environments where they lack support, such as on a remote mountain or a research vessel, says Nandihalli, adding: "There's a lot more safety risk in those situations." Bystanders must also weigh up how the offender is likely to respond. "There needs to be a more nuanced approach in those environments," they say.

ADVANCEGeo team members say that the workshops have been held around 200 times at US institutions and conferences. Williams's team includes a group of social scientists who are collecting data about trainees' attitudes and about how ready they feel to intervene before and after training.

Delicate tactics

Universities are hierarchical structures in which junior scientists' careers can be highly dependent on their relationships with their supervisors. One risk highlighted by Jacobs and other bystander-intervention trainers is that senior colleagues could react negatively to an intervention, singling out both the bystander and the target for challenging them.

Jacobs says that bystanders must therefore assess each scenario quickly but carefully to determine whether it is safe to intervene. Knowing the institution's culture and the personalities of the people involved in the incident

can be helpful – intervening in strangers' conversations, by contrast, might put the target in danger. "Sometimes the best thing is to not say anything," in the moment, Jacobs says.

But not saying anything isn't the same as not doing anything, Jacobs adds. Bystanders have several other, indirect options such as causing a distraction that allows the target to escape, or redirecting the conversation to something innocuous. They might also check in on the target later to see how they felt about the situation and whether they need any help. Bystanders can speak to the offender in private after they've had time to craft diplomatic language.

Bystanders who confront someone more senior should do so carefully and respectfully, says Leslie Ashburn-Nardo, a psychologist at Indiana University–Purdue University Indianapolis. Ultimately, she says, the benefits of intervention outweigh the potential risks, which might be overstated. "It's important for all of us to think about what sort of place we want our workplace to be," she says. "If people keep their heads down, that's just a missed opportunity for changing and shaping the workplace."

Minna Lyons, a psychologist at the University of Liverpool, UK, says that bystander-intervention trainings are not widespread in European universities, and are almost unheard of in southeast Asia and Latin America, regions where she collaborates with local researchers studying sexual harassment.

Lyons is currently working with researchers in several countries, including Guatemala and Ecuador, to understand cultural norms around harassment in universities, the barriers that bystanders face and whether video training programmes could empower them. "It's clear that you can't just transport the US-based interventions to other countries," Lyons says. Rather, training schemes must incorporate diverse local perspectives.

Measuring the efficacy of bystander training has been difficult. Encounters occur unpredictably and can't be observed by researchers. Most studies have relied on self-reports: workshop participants are asked whether they feel more equipped to handle incidents as a bystander after training, for instance, or are more likely to intervene.

VR systems might provide a more objective window. Rawski and her colleagues found that volunteers who watched a sexual-harassment situation in a VR system were more likely than those who watched it on a screen to say that they would intervene indirectly, by creating a distraction or following up with the target later². Rawski suspects that because the VR system felt more authentic, participants had more desire to help despite still being anxious about confronting the perpetrator directly.

Rawski says that bystander training programmes need to be part of a broader effort to combat bias and harassment. Leaders such

A bystander's toolbox

Ask yourself several questions before deciding when and how to intervene.

- Is the situation safe for both you and the target? The hallways of a university might be a safe space; a research station in Antarctica might not. In a situation where the offender might retaliate physically or threaten the target's career, it might be better to report the behaviour to a higher authority.
- Is the offender a stranger, or someone you need to maintain a relationship with? In the first case, redirecting the conversation could be a good short-term fix. In the second, a longer, diplomatic conversation might be needed later.
- Is the person likely to learn from you or to argue? Gently open the conversation by asking the offender what they meant by a comment, before explaining why it is offensive. When confronting someone, particularly a senior person, criticize the behaviour and not the person.
- What will you say? Pointing out inconsistencies between behaviours and workplace values is one strategy: emphasize the importance of professionalism at a university and the need for a welcoming climate. Pointedly redirect the conversation — ask about the weather or make a joke, for instance — to signal that the behaviour is unwelcome. Or highlight the awkwardness by saying, "Ouch! That's really uncomfortable."

as department heads and senior scientists need to help normalize positive behaviour and create space for their colleagues to feel comfortable speaking up.

"Bystander-intervention training is a great first step, but any training that isn't supported by the organizational culture isn't going to be very effective," she says. "We might not be able in an online training to change somebody who is a serial harasser, but we can empower the vast majority of their workgroup to do something in response."

Sara Reardon is a freelance journalist based in Bozeman, Montana.

1. Mujal G. N., Taylor M. E., Fry, J. L., Gochez-Kerr, T. H. & Weaver, N. L. *Trauma Violence Abuse* **22**, 381–396 (2021).
2. Rawski, S. L., Foster, J. R. & Bailenson, J. *Technol. Mind Behav.* <https://doi.org/10.1037/tmb0000074> (2022).

Correction

This Career feature gave inaccurate details for the workshops run by ADVANCEGeo. The workshops are not four hours long and do not use actors to improvise scenarios. The story also underestimated the number of workshops and participants.