

It's all in the mix

The selection of speakers at a conference should reflect the full diversity of experience within the relevant community. Including more early-career researchers may help achieve this goal.

Much has been written about the need for science, and particularly for strongly male-dominated disciplines such as physics, to become more inclusive. Inspired by children's rights activist Marian Wright Edelman's famous words "you can't be what you can't see", this has led to a call for more high-profile conference talks to be given by traditional minorities — for instance by women. Most learned societies, under whose banner many conferences are run, now have guidelines that care must be taken to ensure a diverse speaker line-up.

The diversity policies introduced by most academic societies are an important step in the right direction, but all too often the response is the addition of a few token minority speakers — fulfilling the letter of such guidelines, but not their spirit. A truly diverse conference ought to reflect the demographics of the community it is serving. To offset the natural resistance to change, it would indeed be desirable to go beyond representative percentages, but they are the minimum we should demand.

A more representative perspective may also prompt us to reconsider what we mean by 'diversity in science'. Instead of promoting the visibility of particular minorities, it can shift the focus to diversity in its broader sense as a mix of experience — both lived and scientific.

The current practice of treating every meeting in isolation does little to foster a culture that is rich in variety. Attending a series of topical conferences often means meeting the same people and listening to the same keynote talks over and over again, sometimes creating the impression of following a travelling circus. Meeting the same people may be unavoidable — they make up this particular community after all — but finding the same handful of high-profile names in the plenary or keynote section of every conference programme is not.

To prevent such repetition, some meetings have adopted a policy of not inviting the same speaker twice. For example, the Physics of Living Matter symposium (<https://go.nature.com/2koD9CA>) has

successfully implemented such a policy for 13 years — demonstrating that variation is possible. One way of expanding the pool from which speakers are drawn would be a process similar to the abstract selection that is already used for contributed talks; indeed, keynotes could be chosen from the very same set of abstracts. Chances are this would lead to new faces at the lectern.

Yet, nothing would prevent selection committees from simply picking the abstracts with a famous name on them. A selection based largely on the scientific merit of the work, rather than the speaker, requires a rigorous review process, as is common practice in the machine-learning community. For example, the Conference on Neural Information Processing Systems (<https://go.nature.com/2lZC4Bm>) conducts double-blind review and revision not only for talks — which are only given to the top few per cent of submissions — but also for tutorial and workshop proposals, which includes close scrutiny of the suggested invited speakers for quality, variety and diversity.

Of course, from the organizers' perspective, well-known speakers provide a seal of approval and serve to promote the conference. Just like the name of a film star on a movie poster almost certainly guarantees an audience, the name of a Nobel laureate on the conference website attracts attendees. While there are only so many Nobel laureates to go around, more variation in the eminent scientists is still possible. And just like the opening credits of a film will sometimes explicitly 'introduce' a young actor, a share of high-profile talks at a meeting could be given to scientists in the early stages of their career.

Giving higher visibility to the next generation would do more than only include career stage in our definition of diversity. As a group, early-career researchers are more diverse with a higher percentage of traditional minorities than more senior scientists (<https://go.nature.com/2kEaOZe>), which would organically increase the overall diversity of the speaker pool. But giving a platform to less-well-known researchers is often seen as a risk and,

like most people, conference organizers tend to be risk-averse.

Commercially this risk may well be real, especially for small, not yet established conferences that can't rely on their reputation to ensure success. However, large society conferences are certain to have their audience, and there is no reason to believe that scientific quality suffers from the visible participation of early-career researchers. In fact, this generation of researchers is more likely to have been taught science communication and presenting as part of their PhD training than any of their scientific seniors. And who wouldn't be motivated by giving their first keynote? Although they may not have decades of experience to draw upon, the discussions conferences are supposed to facilitate could surely benefit from involving the people who actually perform the experiments or calculations.

One meeting that specifically aims to provide a platform for the 'younger' generation is the Complex Nanophotonics Science Camp (<https://go.nature.com/2lXeVQc>), where all roles — organizers, speakers and session chairs — are filled by all stages of early-career researchers from students to people who are leading their first independent group. A conference entirely for young researchers? Well, not entirely. A couple of keynote talks at the Science Camp are indeed delivered by big names in the field, who can add a different perspective to the meeting's lively discussions.

This variety of perspective is exactly what makes more diverse groups more successful and more creative (M. W. Nielsen, C. W. Bloch and L. Schiebinger *Nat. Hum. Behav.* **2**, 726–734; 2018). Meetings at which the community exchanges ideas therefore only stand to gain from an increased diversity of the lived and scientific experience among participants. Eventually, science will reap these benefits, as more innovative ideas create more scientific knowledge. □

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