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meanwhile, has promised to invest €17 billion (US$18 billion) in its science agencies over the next decade as part of an overall €60-billion package to support education, research and innovation. But this package seems not to include much support for students, especially those on low incomes, many of whom have been protesting across Germany all week. The closure of bars and restaurants has deprived these students of income from part-time jobs that goes to support their studies. Without help from the state, many say they will need to drop out of higher education altogether.

There are smaller actions that institutions and academics can take. Students, and staff on short-term contracts, would welcome more support from academic colleagues in senior positions and from others with permanent positions, for example.

These colleagues should make the case to their managers that failing to provide more help to low-income students, or cutting the number of postdoctoral staff and teaching fellows will harm the next generation of researchers and teachers. It will also drastically reduce departments' capacity to teach and increase the load on those who remain, who are often forced to taking on the teaching responsibilities of their former colleagues. Senior colleagues can also request assessments of how any planned redundancies will affect equality and diversity.

Cutting back on scholarly capacity is always unwise, but to do so while increasing spending on R&D is wrong-headed. It will slow down economic recovery and jeopardize plans to make research more inclusive. Yet again, the academic precariat finds itself at a disadvantage. Governments, research managers and senior colleagues have a duty to help so that universities can keep these essential and valuable employees.

Communication is key to constructive peer review

The review process should be an honest, but collegial, conversation.

Differences of opinion, critique and robust debate are at the heart of how research advances. Learning and practising how to make — and how to respond to — an argument is foundational to both research and research publishing. Authors present their work against a background of existing knowledge and make a case for why their findings are new. Reviewers assess the work, offer their honest opinion and explain the reasons, especially if they disagree.

But such disagreements are not always communicated collegially, and all of those involved — authors, editors and reviewers — will recall occasions when lines were crossed. To obtain insight into researchers' experiences of the process of peer-review communication, *Nature* conducted two short polls of authors and editors earlier this year.

> **"Clearly, there's work to be done to improve review discussions."**

In a poll of editors of the Nature Research journals, nearly one-quarter (23%) of the 108 respondents said that they had encountered examples of inappropriate language in the course of making publication decisions.

And of 295 authors who responded to a separate poll about peer review, 48% said that their experiences with the process were broadly positive, 5% said their experiences were broadly negative and 47% said their experiences were neither positive nor negative.

To find out more, *Nature* asked these poll respondents for their one key piece of advice to journal editors; something that would help researchers trying to get published. Among the more than 100 responses to this question, one recommendation that frequently came up was that editors and reviewers should ensure that criticisms are more constructive.

"Honest, friendly comment on why the paper cannot be published," said one respondent. "Constructive reviews and motivating feedback," said another. "Look out for rude or inappropriate comments," said a third.

Clearly, there's work to be done to improve review discussions. One approach that can help is transparent peer review, in which discussions between authors and reviewers are published along with papers — and in which reviewers are named, should they wish to be — and this has been growing in popularity over the past few years. The approach provides one way to encourage reviewers to present clear arguments to support their views and to articulate why they would or would not recommend publication. This is particularly valuable in cases in which reviewers are asking for revisions to the paper.

Criticism can be difficult to hear and accept, and here, authors, too, have responsibilities. Arguments based on data and analyses are likely to be the most effective responses to reviewers' and editors' questions and concerns. Many authors will be reviewers themselves, and some will also be journal editors; this should help them to assess situations from those perspectives.

One survey respondent (an author) said that it would help if everyone involved approached the publication of a paper as they would a conversation. Ideally, it would be a discussion among colleagues, in which everyone was working to solve the same problem. This would form a basis for a collegial approach, but this is a hefty ambition, because research is often highly competitive, and publishing papers is, for good or bad, still among the main determinants of career progression.

When the stakes are high, lapses will happen — on all sides. And, amid such pressures, acting collegially can be a challenge. But it is a challenge that all must rise to. Everyone involved is ultimately on the same side: reviewers who put in the hours; editors who are the authors' champion and find the science compelling; and authors who want their work improved through peer review and published.