

SCIENCE PUBLISHING

Reviews open up

Trials suggest growing support for transparent peer review.

BY EWEN CALLAWAY

When Kevin Sinclair reported that 13 cloned sheep his lab had studied lived long and healthy lives, he wanted to be as transparent as possible about what has been a controversial research area. Sinclair had invited journalists to see the sheep while the experiment was in progress at the University of Nottingham's School of Biosciences in Loughborough, UK. And when his paper was published this July, he agreed that its peer-review reports should also be made public (K. D. Sinclair *et al. Nature Commun.* 7, 12359; 2016).

The developmental biologist was taking part in a trial by *Nature Communications*, in which the journal offered authors the option to have their reviews published. The goal was to find out whether scientists would see the practice as a way to make research more reliable and egalitarian — or as a needless nod to transparency that could harm peer review.

A few journals, such as *PeerJ*, the *BMJ* and *F1000Research*, already embrace open peer review in different forms. Some forbid it. Other publishers and journals, including *Nature Communications*, are treating the practice as a frigid swimming pool: they are dipping their toes in the water, but are reluctant to plunge in.

So far, scientists seem willing to give open peer review a try. On 10 November, *Nature Communications* announced that around 60% of its authors in 2016 had agreed to have their reviews published, and that it would continue to offer scientists the option — although would not make it mandatory. (Reviewers can choose to withhold their names, but cannot otherwise influence the process, apart from declining to take part in an 'open review' paper.)

Meanwhile, an unpublished online survey funded by the European Commission (EC) has found that more than half of its 3,062 respondents thought that open peer review should become routine, although they expressed some qualms about specifics. One challenge is that open peer review means different things to different people, says Anthony Ross-Hellauer, an information scientist at the Göttingen State and University Library in Germany, who ran the survey for the EC-funded 'OpenAIRE' project on open science. Some think that it implies only naming the reviewers, but not

making their reports available, whereas others think that unsigned reports should be public. "It makes it really difficult to talk about what works in what circumstances if we're not using the same language," Ross-Hellauer says.

Some scientific communities seem to embrace open-review reports more readily than others, notes Joerg Heber, executive editor of *Nature Communications*. During his journal's trial, authors on more than 70% of eligible papers in ecology and evolution, molecular biology and Earth sciences adopted open reports, whereas physics papers saw the lowest uptake.

OPEN EXPERIMENTS SPREAD

For nearly two years, Dutch publisher Elsevier has published unsigned peer-review reports for five of its titles. On the basis of that trial, Elsevier plans to bring open review to other journals next year. And some journals allow reviewers to post their pre-publication reviews at other websites. One of those sites is Publons.com, which encourages scientists to make their peer reviews public, if journals permit.

Advocates say that the benefits of open peer review are straightforward. "It's about making the process fairer and more transparent, so people can be held accountable if something goes wrong," says Jonathan Tennant, a palaeontologist at Imperial College London and communications director at ScienceOpen, an open-research publishing network. But Stephen Heard, an ecologist at the University of New Brunswick in Fredericton, Canada, has misgivings. He worries about scientists posting peer-review reports without the knowledge or permission of reviewers. Heard also says that if he knew his reviews would end up public, it would make the job harder because he would feel obliged to cut back on technical language. "I would inevitably do fewer reviews," he says.

It's also not clear who actually reads the reports once they are made public, Heard says. Heber says that download figures will be assessed by *Nature Communications*. (The journal is published by *Nature's* publisher, Springer Nature; *Nature's* news and comment team is editorially independent of the publisher's research editorial teams.)

Sinclair has not yet heard from anyone who has read the review report for his paper. And although his lone experience was encouraging, he is not ready to be an evangelist for open peer review. "I think most people, and I would include myself, are apprehensive," Sinclair says. ■

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