

# Is open peer review the fairest system?

**Trish Groves** argues that telling authors who has reviewed their paper has helped to make the process fairer, but **Karim Khan** is concerned that it stops reviewers being completely frank

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**YES** When I arrived at the *BMJ* in 1989 I often had to cut (with scissors) and paste (with glue) the highlights of a reviewer's report on to another sheet of paper and photocopy it. Only then could I enclose the review with my letter to an author, as the original was too rude or destructive. At the same time, numerous studies of peer review were finding that it was riddled with systematic biases—against authors, their institutions, their nationality, and their sex. Such abuses of anonymity were so common that Drummond Rennie, then deputy editor of *JAMA*, called for reviews to be signed, so that journals would link “privilege and duty, by reminding the reviewer that with power comes responsibility: that the scientist invested with the mantle of the judge cannot be arbitrary in his or her judgment and must be a constructive critic.”<sup>1</sup> Although *JAMA* did not adopt open (signed) review, the *BMJ* did: in 1999.

Why didn't we adopt double blind review, withholding reviewers' names and also removing authors' identity from reviewed articles? Firstly, because

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evidence, including that from randomised controlled trials, had found no benefit of such blinded review.<sup>1</sup> More importantly, the *BMJ*'s editors felt strongly that withholding reviewers' names was an unfair and kafkaesque system that seriously limited transparency. We hoped that unmasked reviewers would rise to the challenge and act as critical friends, unafraid of face to face (virtual) scientific discourse. Dream on, said the critics: if you ask reviewers to sign their reports they will perch on the fence and blandly say nothing much. They were wrong, as a *BMJ* randomised controlled trial<sup>2</sup> and now more than a decade's experience have shown.

## Open debate

Perhaps open peer review has succeeded at the *BMJ* because we make it clear that editors, not reviewers, decide whether to accept or reject submissions. Or has it worked because the *BMJ* is a general journal that doesn't serve just one specialty or have



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**NO** Open peer review makes perfect sense in the ideal world. But it is not an ideal world. As editor of a *BMJ* Group specialist journal, I am concerned that open review provides more scope for power relationships to favour “the great and the good.”

## Anonymity creates a safe place

Open peer review is associated with the risk that an inferior paper written by a senior authority in the field may receive a “soft” or generous review from a junior reviewer who either seeks to curry favour or fears an honest review would lead to payback at some future time.<sup>1 2</sup> Van Rooyen and colleagues' classic randomised controlled trial found a 5% greater positive recommendation among identified reviewers (open) than among anonymous reviewers (closed). Although that difference seems unremarkable, the authors of that study, undertaken at the *BMJ*, acknowledge that results could differ for a small specialist journal where the authors and reviewers are

more likely to come into regular contact.

Reviewers for the *British Journal of Sports Medicine (BJSM)* have the option of remaining anonymous (closed review), and about a quarter do. I received this unsolicited note from a reviewer: “I don't want my name used. I know [author] and she will likely know these are my comments. I'd just rather not reveal that to her. We have known each other for quite some time and I have a great deal of respect for her and her work. I wouldn't want to jeopardise that relationship if she perceived these comments to be negative.” Importantly, the closed review was fair and constructive, and the paper was accepted. Open peer review, in this case, would have either prevented the reviewer from accepting the task or led to a modified review. In either case, an inferior outcome.

Open review can cause reviewers to blunt their opinions for fear of causing offence and so produce poorer reviews.<sup>3</sup> Authors and reviewers are human. Psychology professor Robert Cialdini argues that reciprocity is the most powerful of all the forces that influence behaviour—give what

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to rely on one group's goodwill or patronage? The same applies to the *Journal of the Royal Society of Medicine*, which also uses signed open review. *PLoS Medicine* has taken a slightly different path. In the first two years editors expected all reviewers to provide either a signed review or a reason for not signing, but in 2007 the policy changed to one of encouraging open review while honouring any requests for anonymity. None of the other big general medical journals has even tried open review.

The argument that open review won't work within the closer circle of a specialist journal—particularly one owned by a professional body or society—was refuted by a randomised controlled trial conducted at the *British Journal of Psychiatry*.<sup>3</sup> And the specialist journals in the BMC series (set up by Fiona Godlee, now editor of the *BMJ*, who was BioMed Central's first editorial director for medicine) have opened the peer review process wider still. They post alongside each accepted article its prepublication history, comprising the original submitted version plus the signed reviewers' reports.<sup>4</sup>

Across academia there are many other models of journal peer review. Varying definitions of "open" review include asking a wider community to come to the journal's

website and rate articles.<sup>5</sup> Open review at the *BMJ* currently means that all reviewers sign their reports, declare their competing interests, and desist from making additional covert comments to the editors.<sup>6</sup> Most *BMJ* authors and reviewers seem happy with this approach, and some actively applaud it. Reviewers generally make detailed and constructive comments; only a handful of reviewers each year cite open review as their reason for declining *BMJ* assignments, and we have had no reports of serious adverse events arising from open review. Furthermore, a randomised controlled trial has shown that it is feasible to publish reviewers' comments without detriment to reviews' quality.<sup>7</sup> The *BMJ* will start to post prepublication histories from mid-2011,<sup>8</sup> and our new sister journal *BMJ Open* is using the same approach from launch (<http://blogs.bmj.com/bmjopen/>).

### Giving credit

Open peer review has another advantage that might persuade more specialist, small, or local journals to take the plunge: it gives reviewers credit that goes well beyond seeing their names on a thank you list in the last journal of the year. Signed reviews are seen by authors and other reviewers who are often

important peers, senior figures, or rising stars. A well researched and constructively worded review can be a great help, even if the journal then rejects the article. Once authors have recovered from rejection they can use that criticism to submit a revised article more successfully to the next journal, or to appeal. Many authors will then appreciate and remember the careful reviewer whose contribution made a difference. In addition, reviewers' reports can be excellent learning tools, both for their substantive content and for their style: they can show how to conduct peer review well. Peer review is a linchpin of science, yet it is too often a thankless task reliant on underappreciated skills learnt without teaching materials. For all of these reasons, putting a name to the anonymous face is surely a good thing.

**Competing interests:** The author has completed the unified competing interest form at [www.icmje.org/coi\\_disclosure.pdf](http://www.icmje.org/coi_disclosure.pdf) (available on request from the author) and declares no support from any organisation for the submitted work; no financial relationships with any organisations that might have an interest in the submitted work in the previous three years; no other relationships or activities that could appear to have influenced the submitted work.

**Provenance and peer review:** Commissioned; not externally peer reviewed.

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you want to receive.<sup>4</sup> Open review assumes that reciprocity has no role.

### Does closed review empower the jealous rival?

As humans are imperfect, occasionally reviewers will use their cloak of invisibility to savage a paper for personal reasons; jealousy is not eradicated by climbing the academic ladder. Editors may suspect this and obtain additional reviews, but if not there should be a robust system of appeal managed at arm's length from the first review. At *BJSM* editors involved in the first rejection are not part of the appeals process. Of 32 appeals, four were successful—this compares with the journal's overall acceptance of 10-15% for new papers.

### Aren't all reviews fair?

*BJSM* has a specific "peer review: fair review" section for authors who feel that their manuscripts have not been fairly treated at other journals. Although our aspiration is that all reviews are fair, this section allows the author to highlight reviewers who should be excluded; we

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encourage them to submit previous reviews without prejudice. This process mirrors what has been happening at grant review panels in many places. To date we have accepted six papers from eight submissions through this method.

### A practical note—finding reviewers

The proponents of open review argue that it should "increase the credit" for the reviewer.<sup>3</sup> Although this aspiration is laudable, my experience from sitting on university promotion and tenure committees suggests that the universities who should confer credit have a long way to go before they will value peer review. Importantly, a portion of the potential reviewer pool clearly considers review more of a burden than a gift; in the *BMJ* open review experiment, 23% of closed and 35% of open reviewers declined the invitation.<sup>3</sup>

Using *BJSM* as a specialist journal comparator, 28% of 600 requested referees have declined the invitation so far this year. If that became 40% (arguably conservative), the editorial office would need to invite about 10-12 additional reviewers a month.

Peer review, either open or closed, has limitations; indeed it has become popular to draw the parallel between Churchill's opinion regarding democracy and the state of peer review (seriously, almost fatally flawed, but better than any alternative). The ongoing commitment to studying peer review is to be encouraged, and journal editors must apply existing evidence and contribute to further research where possible.

**Competing interests:** The author has completed the unified competing interest form at [www.icmje.org/coi\\_disclosure.pdf](http://www.icmje.org/coi_disclosure.pdf) (available on request from the corresponding author) and declare no support from any organisation for the submitted work; no financial relationships with any organisation that might have an interest in the submitted work in the previous three years; and no other relationships or activities that could appear to have influenced the submitted work.

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