

# Manipulating the peer review process: why it happens and how it might be prevented

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*Peer review continues to be upheld as the best way to evaluate academic research ahead of publication. Yet the peer review process has been consistently targeted and manipulated by authors, reviewers and even editors. **Sneha Kulkarni** reveals how this is happening and what might be done to prevent it, considering the merits of different peer review models but also the target-driven culture of academia that leads some to engage in misconduct.*



Academic corruption is an intractable issue plaguing journals, institutions, learned societies, and governments across the globe. While the volume of scientific publishing is increasing, the competitive pressure to get published is leading some researchers to indulge in misconduct. The enormity of this issue is evident from the [increased volume of retractions](#). One of the major forms of misconduct is peer review manipulation, which is becoming increasingly and worryingly common. Every so often we encounter news of mass retractions by journals due to peer review manipulation. In 2015, [more than 100 retractions were attributed to peer review scams](#). Recently, [Springer Nature retracted 58 articles](#) after discovering that the peer review process had been compromised. The incident brought back into limelight the loopholes in one of the pillars of academic publishing process: peer review.

Peer review is regarded as the gold standard for research evaluation. However, it has been consistently targeted and manipulated by researchers, and, at times, even editors. Peer review is the stepping stone to publication; once a paper receives positive recommendation from peer reviewers, the chances of its publication skyrocket. Therefore, desperate researchers sometimes resort to rigging the system to ensure publication. The foremost reason underlying this problem is the extreme competition in academia that forces researchers to rapidly increase the volume of their publication output to secure promotions, grants, and even salary hikes. According to a study conducted by Joeri K. Tijdink and his team, [early career researchers are more inclined to indulge in misconduct](#). The misplaced emphasis on the volume of output has become a major threat to the quality of published science. This, however, is not the only loophole in the system.



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Some of the practices followed by journals provide a window for authors to exploit the system. A majority of journals follow the single- or double-blind peer review model, with reviewers' identities remaining hidden. Such models can effectively provide cover to authors or reviewers that wish to manipulate the peer review process as comments are only visible to – and reviewers only accountable to – the editor. As a result, if editors fail to detect signs of manipulation it is likely that any such incidents will never come to light. This prevents the wider community from scrutinizing and validating reviewer judgements; including identifying potential instances of reviewer bias during evaluation. Many journals such as [BioMed Central](#) and [F1000Research](#) have adopted other review models to counter this shortcoming, such as open peer review and post-publication peer review. Lending transparency to the review process would lead to a more lucid evaluation of published research, and this could help in reducing the number of incidents of manipulation.

Another practice followed by some journals that at times threatens the integrity of peer review is [allowing authors to suggest reviewers](#). Editors have a tough time recruiting peer reviewers, especially when submissions belong to fields that are highly specialized. In such cases, editors of some journals permit authors to recommend reviewers. While this might help the publication process progress faster, [it leaves the peer review system susceptible to exploitation](#). Authors can either suggest reviewers who would give glowing reviews or create fake identities to provide favorable reviews for their own paper. Hence, editors should carefully evaluate the identities of reviewers as well as the reviews to ensure a fair review process.

Academia is characterized by the 'publish or perish' culture. However, it is not only researchers that are affected. Journals similarly feel the pressure of tackling the increasing volume of submissions while also providing a competitive service to authors by reducing publication timelines. This is likely to have an impact on their decision-making. In July 2015, Hindawi Publishing Corporation announced that three of its editors were found to have rigged the peer review system to publish 32 papers. These editors appeared [“to have subverted the peer review process by creating fraudulent reviewer accounts and using these accounts to submit favorable review reports.”](#) Many editors may find themselves struggling to meet (commercially-motivated) targets imposed by journal publishers – whether these are publishing a certain (increasing) number of articles or maintaining/increasing the journal's impact factor – and so may seek to expedite the acceptance of papers by manipulating the review process in this way.

Kailash Gupta, former editor in chief of *AIDS Research and Therapy*, says he has witnessed “[publishers structuring their business to make more revenue, often to the detriment of their products.](#)” Such excessive pressure can mean fraudulent papers reach publication. Editors have a challenging responsibility of upholding the quality of published papers, and errors on their part can collectively lower the standard of published literature.

Is there a way journals and publishers can protect themselves from manipulation? Editors can reduce their pressure by developing a pool of reliable and well-qualified reviewers. This would allow them to focus on the quality of submissions and assessing the fairness of reviewer comments rather than evaluating the reviewers’ credibility. For their part, journals should assess the pros and cons of allowing authors to suggest reviewers. If journals do follow this model, they should restrict the number of author-suggested reviewers appointed for a paper and/or have screening processes in place to evaluate the quality of reviewers they appoint. For instance, journals such as *DNA and Cell Biology* [turn down the suggestions for reviewers who have non-institutional email addresses](#). In today’s digital age, online submission systems are preferred by most publishers. Thus, to secure the peer review process, publishers need to think of methods that would safeguard their online systems from being abused by fraudulent authors. Some of these include using peer review platforms that do not allow online review invitations to be forwarded; using reliable systems to provide forgotten passwords; and using reporting functions to screen the reviewer database for any suspicious activities. A collective effort from academia is needed to deal with the many challenges peer review poses.

Merely detecting misconduct does not help in rooting out the problem. To tackle it, educating authors about the consequences of fraudulent actions is critical. They should be made aware of the fact that misconduct is damaging to science: it stalls scientific progress, is expensive for institutions and funding bodies, and might pose a risk to humans and animals. In other words, it can be detrimental to the very fabric of science. Moreover, cases of misconduct adversely affect the concerned researcher’s academic reputation and career advancement prospects. Educating and mentoring researchers to publish ethically should be one of the top priorities of senior researchers, institutions, and principal investigators. For their part, institutions and funding bodies should focus on fixing the skewed reward system that places quantity of research above the quality and impact of research. All the major stakeholders of science should work together to reduce, and possibly eliminate, academic misconduct.

*This blog post is based on the author’s article, ‘[What causes peer review scams and how can they be prevented?](#)’, published in *Learned Publishing* (DOI: 10.1002/leap.1031).*

*Note: This article gives the views of the author, and not the position of the LSE Impact Blog, nor of the London School of Economics. Please review our [comments policy](#) if you have any concerns on posting a comment below.*

## **About the author**

**Sneha Kulkarni** is Senior Writer & Editor, *Editage Insights*, *Editage*, *Cactus Communications*. She has rich experience working with *English as a Second Language (ESL)* and *English as a Foreign Language (EFL)* learners. Her interest in the communication of research led her to her current role of developing and designing content for researchers and authors. She writes original articles and creates content that provides researchers and publishers with insights into the latest developments and trends in the publishing industry.

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