

The Principles of Fair Allocation of Peer-Review: How Much Should a Researcher be Expected to Contribute?

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Received: 19 August 2014 / Accepted: 30 August 2014 / Published online: 7 September 2014
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Abstract There seems to be reluctance amongst scientists to invest some of their own time in the peer-review of manuscripts. As a result, journal editors often struggle to secure reviewers for a given manuscript in a timely manner. Here, two simple principles are proposed, which could fairly allocate the contribution of individual researchers to the peer-review process.

Keywords Peer-review · Science · Guidelines · Research

Introduction

There is little doubt that peer-review is a cornerstone of scientific research. However, one of the greatest challenges facing editors of most scientific journals is the difficulty in securing peer-reviewers. Although the recruitment of reviewers is probably not an issue for top-tier journals, for the vast majority of journals there seems to be a frequent lack of willingness of researchers to assist in the peer-review process.

I believe that the willingness (or not) of experienced scientists to contribute to the peer-review process is a paramount issue for the sustainability of scientific research and the safeguard of appropriate scientific standards. As an editorial board member of a scientific journal, I frequently receive a “too busy” response when seeking input from researchers into the peer-review process of submitted manuscripts. When it comes to recognized experts, one can expect that peer-review requests will be rejected upfront in the vast majority of cases. Such experts often argue that if they accepted all requests, they would do nothing else but peer-review manuscripts.

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Although this may be true in some cases, this argument is certainly overused to exempt oneself from contributing to the essential peer-review process. The immediate result is that, despite the laudable efforts of many journal editors and staff to speed up the peer-review process, too often researchers face a frustrating wait for feedback on their work.

Although the importance of the peer-review process is widely acknowledged, it seems that there is no published work highlighting the duty we have as scientists to regularly assist with peer-review. Further, there seems to have been no discussion among the scientific community as to how much one should contribute. Thus, in order to address this gap I propose two simple guidelines, which may be referred to as the Principles of Fair Allocation of Peer-Review.

Principle 1 If a given scientist is an author in x manuscripts submitted for publication in peer-reviewed journals over y months, they must agree to peer-review at least x manuscripts over the same y months.

It has been proposed previously that one should review as many manuscripts as the number of reviewers that were required for one's publications over a certain period (Kubke 2012). This way, if one publishes 3 articles in a year, each requiring 3 reviewers, one should agree to peer-review 9 publications over that year (Kubke 2012). Although ideal, I believe that this proposition is unfeasible in practice and would also unrealistically burden prolific researchers.

For example, let's hypothesize that a Dr Vader is a renowned psychologist responsible for numerous breakthroughs in the field of cognitive behavioural therapy. Dr Vader is the first author or senior author in 10 manuscripts that have been submitted to peer-review in the period of 1 year. Five articles are accepted for publication at the first venue of submission, but as his methods and ideas are controversial, 5 of them were rejected after peer-review and were submitted to other journals. Three were subsequently accepted, but 2 were rejected and had to be submitted to a third journal. Let's assume that all manuscripts have been examined by just 2 reviewers. In this scenario, Dr Vader's contribution to Psychology over that year would have conservatively involved 34 reviewers. As a result, I believe that requiring that Dr Vader peer-reviews 34 articles in 1 year is unattainable, and this applies for most active researchers of high calibre, who may produce a dozen or so manuscripts every year. In addition, it would be nearly impossible for most to keep track of the exact number of reviewers one's publications have required over a certain period of time.

Thus, in light of the above rationale, I propose that, in practice, the more conservative Principle 1 would ensure that there are a sufficient number of experts to meet the demand for reviewers across the board at any given time. This is because most publications involve multiple co-authors, so that a single publication may lead to many peer-reviews being allocated.

Nonetheless, even with this conservative approach, there is little doubt that some active researchers will argue against this principle. Let's say a Dr Skywalker is a world expert on rocket science with a 'finger' in 30 publications over the course of 12 months. Dr Skywalker would argue that it would not be feasible for him to peer-

review 30 manuscripts for the same year, particularly since his contribution to most manuscripts was relatively minor. However, this logic does not withstand scrutiny, since every reasonable journal would agree that authorship in a paper is only warranted in the event of a ‘significant contribution’. Therefore, if Dr Skywalker inflates the extent of his contribution to an article so that co-authorship can be attained, then he should not minimize his level of input to justify not abiding to Principle 1. Thus, assuming that all co-authorships are obtained in fairness and are based on a ‘significant contribution’, Principle 1 should be applicable in practice.

Principle 2 The perceived status of the journal requesting input into the peer-review process must not be the primary factor affecting the decision to accept or decline the invitation.

Early in my career, I received advice from a senior academic that I should refrain from peer-reviewing articles from minor journals, and should rather concentrate on those from ‘high-impact’ publications that would look better on my CV. From personal observation, this view seems to be commonly held among high-ranking academics.

I can understand why most researchers would not hesitate to review articles submitted to top-tier journals. However, it is troubling that many academics do not contribute to the peer-review process of journals perceived to be ‘low-impact’. I believe that this behaviour is unethical as it directly affects the quality of published research, quality that the research community should be striving to protect. I would like to stress that I’m not referring to the vast number of journals produced by predatory open access publishers that have recently sprung up like weeds (Beall 2014). Instead, I refer to countless reputable journals across a vast array of fields that feature low in the impact factor list, especially those journals with a national or regional focus. The belief that ‘lower impact’ journals are less rigorous may discourage leading academics from agreeing to contribute to their peer-review process, effectively lowering the quality of peer-review, creating a self-fulfilling prophecy. The best way to ensure the quality of these important but ‘lower impact’ journals is to participate in their peer-review process.

The reality is that the vast majority of the research output throughout the world is not ground-breaking. Further, funding limitations are faced by the bulk of researchers, which limit the size of most on-going projects. As a result, only a very small proportion of the global research output will eventually be published in top-tier journals. The vast majority of research findings are published in journals that, although repositories of robust and scientifically sound studies, are perceived as ‘low impact’. In the age of the internet and with the adoption of English as the unofficial language of research, knowledge is no longer confined by national boundaries. Thus, it is the responsibility of all researchers to participate in the peer-review process across the globe, which means that we should all ‘pitch in’ and contribute to it without prejudice.

Concluding Remarks

All practicing researchers have a duty to contribute to the peer-review process. By following the two simple principles proposed, timely publication of sound research across the globe may be facilitated. Importantly, just as we expect others to review our submitted work, we must not excuse ourselves from this duty. If we fail to do our part, we certainly cannot complain if the peer-review of our own work takes too long...

Acknowledgments I thank Dr Benjamin Albert (Liggins Institute, University of Auckland) for his very insightful comments and peer-review of this manuscript.

Conflict of interest The author has no financial conflicts of interest to disclose, except that he is in the editorial board of a scientific journal.

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