

Academic Excellence: A Commentary and Reflections on the Inherent Value of Peer Review

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Author's Note

This manuscript is based on the authors' experiences as peer reviewers; observations from being members of peer review committees; responses from those who have experienced peer review both from a manuscript and proposal review and evaluation perspective; and review of the literature pertaining to the peer review process, ethics, and academic review.

Abstract

Academic peer review is widely viewed as fair, equitable, and essential to academic quality. Successfully completing the process through publication or award is widely deemed as one of the most rigorous and prestigious forms of scholarly accomplishment. Despite this sentiment the academic peer review process is not without fault. It is criticized as being slow and influenced by "elitists" and "gatekeepers" whose motivations are not always in the best interest of adding intellectual depth or seeking Truth. Intellectual depth is what makes peer review a standard of ethics in research. It is extremely important for all involved in the peer review process to be self-critical and to take intentional steps to avoid situations whereby the integrity of the peer review process can be called into question.

Keywords: Academic review, elitists, ethics, gatekeepers, peer review

Introduction

“The mistake, of course, is to have thought that peer review was any more than a crude means of discovering the acceptability-not the validity- of a new finding. Editors and scientists alike insist on the pivotal importance of peer review. We portray peer review to the public as a quasi-sacred process that helps make science our most objective truth teller. But we know that the system of peer review is biased, unjust, unaccountable, incomplete, easily fixed, often insulting, usually ignorant, occasionally foolish, and frequently wrong.”

---Richard Horton, Editor of the British medical journal, *The Lancet*.

The process of peer review is generally considered essential to academic quality and is widely viewed as fair and equitable. Despite this sentiment peer review is not an infallible end. Many are quick to point out that peer review is too often controlled by “elitists” or “gatekeepers” whose influence can be deemed as arrogant power mongering. In terms of books or manuscripts the peer review process is generally controlled by an editor who typically selects reviewers and controls what is passed on for continued review and potential publication. In short, the editor directs, leads, and makes final determinations in regard to what will be published. Granting agencies typically recruit and select a panel of experts to engage in the review of grant proposals. Colleges and universities have peer review committees that make recommendations in regard to whether or not individuals should be promoted through the professoriate based on their overall scholarly contributions. The peer review process, both in terms of books or manuscripts and through granting agencies, involves individuals who presumably have knowledge and expertise in a closely related field to that of the author(s) of a manuscript and/or a Principal Investigator (PI) of a grant proposal. While areas of study and scientific inquiry are vast, those who possess expertise in narrowly focused fields are few and far between.

Academic peer review is the process of subjecting an author’s scholarly work to the scrutiny of others who are considered experts in the same subject area. Pragmatically, peer review refers to the work done during the screening of submitted manuscripts, funding applications, promotional portfolios, and awards. The process provides for confirmation of meeting accepted standards and confirming the quality and impact of the scholarship in a specific subject area. Scholarship that has not undergone peer review is likely to be considered of lesser quality than peer reviewed scholarship despite whether it really is or not.

Peer review is not perfect; but successfully completing the process through publication or award is widely deemed one of the most rigorous and prestigious forms of scholarly accomplishment. Publications and/or grant proposals that have not undergone peer review are likely to be regarded with suspicion by scholars, professionals, and peer review bodies. This general sentiment is based on trust and faith placed in individuals involved in the peer review process; therefore, ethical obligations as it pertains to peer review at every level are extremely important to not only recognize, but to earnestly embrace and put into practice.

Criticism of Peer Review

Peer review is usually a very time consuming process and is often criticized as being too slow. At times the slow pace of review can be detrimental to the advancement of breakthrough scholarship since by the time a manuscript is published or an award is made it is quite possible for it to be considered out of date. While this is a common and legitimate criticism, there are ethical concerns related to the peer review process that include elitists who are closed to advancing legitimate, albeit contrary findings to their own. In addition, there are those known as “gatekeepers” who attempt to control what will be advanced for review and accepted for publication. Finally, there is a perception that some journals and funding bodies will only support manuscripts and proposals from those of similar background and/or organizational affiliation.

In the peer review process, “elitists” are considered a small group of people who control a disproportionate amount of power in terms of advancing scholarship presented to them. An editor, or any peer review committee member, can be perceived as elitist when their actions are based on arrogant power mongering rather than facts and attempting to instill greater academic depth. Reviewers tend to be more critical of conclusions that contradict their own views. For example, instead of engaging in constructive criticism based on factual representations, some elitists will suppress and/or discredit those with a dissenting argument or different scientific results that they are not supportive of advancing. The bias of elitists is dangerous because it has potential to block the advancement of solid breakthrough scholarship and leaves people questioning the integrity of the peer review process.

As the term implies, a “gatekeeper” is a person who controls access to something. In terms of the peer review process, access is the advancement of a manuscript or grant proposal submitted for funding consideration. Usually, such activity contributes toward the advancement of a given discipline and plays a major role in the career advancement of those submitting manuscripts and grant proposals; therefore, it is of vital importance to those who submit such scholarship for peer review. The intent of the academic peer review process is to ensure quality, confirm facts, provide rigor, and determine suitability. Despite this intent, issues of preference and exclusion are sometimes raised related to prejudice, career rivalries, and/or other personal bias that may arise (Altman, 2006). Some journals are perceived as incestual because they only advance scholarship from those who are “members of their club” in terms of institutional or organizational affiliation. For example, a journal editor or peer reviewer may not advance certain scholarship, or provide unfavorable review, due to personal bias and prejudice. It is extremely important for those leading the peer review process to take intentional steps to mitigate such circumstances to protect the integrity of peer review.

Rethinking Peer Review

Several scholars and prominent organizations have studied the peer review process. Based on conclusions that have been drawn there is clear acknowledgement that peer review is not perfect and that change is necessary. For example, in 2008 the Carnegie Foundation for the Advancement of Teaching published *The Formation of Scholars: Rethinking Doctoral Education for the Twenty-First Century*. While the focus of this publication is on doctoral education, the overriding sentiment expressed pertains to academia as a whole. Academicians are challenged to look in the mirror and address concerns about complacency, denial, blame, and growing pressures for accountability. All of these challenges pertain to the peer review process. While there are many aspects of academia requiring honest evaluation, review, and change, the peer review process is as important as any due to the broad intellectual community it is designed to serve and the wide-ranging impact peer review has on so many.

One of four “change” approaches highlighted in *The Formation of Scholars: Rethinking Doctoral Education for the Twenty-First Century* pertains to the intellectual community. It is within this aspect of change that the characteristics of intellectual community are most closely aligned with the peer review process. For example, the intellectual community should be one that “fosters the development of new knowledge by encouraging scholarly debate and intellectual risk taking.” When “elitists” and “gatekeepers” interfere with this by imposing their own bias and restricting access to new knowledge it holds back the advancement of science. This provides one example as to why peer review is essential to research ethics.

More specific to the peer review process itself, the National Institutes of Health (NIH) in 2008 made major revisions to their peer review process. The primary revisions included restrictions on the number of resubmitted proposals allowed and an appeal process if certain criteria are met. The changes have met with mixed enthusiasm from the academic community. Toni Scarpa, who was the Director of the Center for Scientific Review at NIH, considers the changes made to have been the signature accomplishment of his tenure while at NIH, and a key initiative of Elias Zerhouni while serving as NIH Director. However, members of the scientific community referred to the changes as veneer that did not go far enough to fundamentally address the problems with peer review for the purpose of choosing winners and losers in the grants process.

Of particular concern is the current scarcity of resources and plummeting success rates of for NIH grant applicants. Many meritorious grant applications are precluded from being resubmitted, despite having received excellent scores, due to the new restriction on the number of resubmissions allowed. The changes were designed to decrease the administrative burden of reviewers with the desired outcome of increasing the proficiency of the peer reviewers. However, as pointed out by Fang et al., (2009), this still does not address the fact that peer review is a subjective process of review by those who may not have adequate expertise to evaluate novel approaches to scientific problems. Others in the scientific community have called into question the peer review process altogether with questions about

the lack of evidence to support the effectiveness of peer reviewers to actually select projects that lead to major discoveries.

NIH has attempted to address ethical concerns about subjective peer review by instituting an appeals process. Grant applicants may appeal an initial peer review group's decision if any of the following peer reviewer issues appear to be present:

1. Evidence of bias
2. Conflict of interest
3. Lack of expertise within the peer review group
4. Factual errors made by a reviewer that may have altered the recommendations of the group.

The appeal must follow stringent administrative criteria for when and how the appeal is made. The appeal will not move the application from a recommendation against funding to a recommendation for funding. The most positive outcome for the appeal process is to move the application into the queue for another review by with the same or a different review group depending upon the flaw in the original review. The applicant cannot modify or add additional materials to the application prior to re-review.

The appeal process does acknowledge there are potential flaws in the system and does what it can to ameliorate possible resulting negative outcomes. The 2011 NIH Grants Policy Statement notes that the agency retains the right to temporarily suspend the appeal process. It is unclear how an evidence of bias, conflict of interest, lack of expertise or factual errors in the reviewers' notes would be handled during this temporary suspension.

Conclusion

In conclusion, peer review is essential to academic quality and is generally viewed as fair and equitable; but the process of peer review should always add intellectual depth to a given discipline and be free of bias. Intellectual depth is what makes peer review a standard of ethics in research. Without academic rigor, efforts have no real depth or significance. The journey to Truth requires honesty and integrity. To ameliorate the peer review process it is imperative for all involved in the process to be ethical, unbiased, and open to the generative potential of multiple perspectives.

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