

Some problems of manuscript refereeing and a possible solution

Alvin Weinberg (1) has said, "Of all the traits which qualify a scientist for citizenship in the republic of science, I would put a sense of responsibility as a scientist at the very top. A scientist can be brilliant, imaginative, clever with his hands, profound, broad, narrow -- but he is not much of a scientist unless he is responsible." Because I believe that we as scientists often need to do a better job of meeting our responsibilities, I suggest below a few actions we might take to help improve an important one: peer review.

Scientists who publish refereed papers must themselves be willing to review manuscripts when so requested. This reciprocal obligation is inadequately recognized by some authors, and those who agree to review far fewer manuscripts than they themselves publish thereby compel others to review more than their fair share. Problems with refereeing may significantly and unnecessarily delay an editor's decision on a submission, much to the dismay of its author and perhaps even to the detriment of the scientific community.

A primary problem is reviewer procrastination. In my opinion, reviewers who take substantially more than a month to review a MS should never have agreed to review it in the first place. Clearly, the standard editorial request for a speedy review is honored more in the breach than in the observance.

These problems of reviewer response might be minimized if editors included with manuscripts sent for review a return postcard (or return email) requesting the reviewer to specify the date by which the completed review would be mailed. This would not only help in editorial planning but would provide a definite self-established goal for the reviewer. Routinely tardy reviewers appear to have little empathy for other authors, yet they are likely to be in favor of an unsymmetrical application of the golden rule. Because reviewing reduces the time available for one's own work, some reviewers consciously or unconsciously unduly delay their response,

thus possibly reducing the probability of their receiving another request during the review period or after its completion. In light of the potential abuses and conflict-of-interest problems inherent in anonymous peer review, Berezin, Gordon, and Hunter (2) have called for all reviews to be signed. In the best of all possible worlds, such an approach would indeed be appropriate, but in the present real world it would probably greatly limit the supply of appropriate reviewers.

To ameliorate some of these reviewing problems, I suggest two possible approaches which would incorporate desirable feedback procedures without necessarily sacrificing anonymity. First, editors should not only strongly emphasize the importance of adherence to the requested two- (or three-) week review response time, but in addition, they should inform a potential reviewer that if the review has not been received by the editor within a specified interval (4-6 weeks seems more than generous) after delivery to the reviewer, then (barring rare extenuating circumstances) that potential reviewer's name will be disclosed to the author of the MS. This tactic by itself would certainly reduce average review time.

Even if the **above** disclosure procedure is deemed to be too draconian, the following strategy would encourage reviewers to eschew tardiness. Two lists of reviewer names should be published by each journal at the end of the year. The first list should contain the names of those reviewers who were dilatory (by the above criterion) during the year. Publication of such lists at the same time of the year by many journals would allow their editors to accumulate the various listings and thus be better able to recognize and avoid using slow reviewers whenever appropriate.

In addition, it seems desirable that, when a reviewer on the "slow" list submits a MS, the reviewer for this MS be chosen from the "slow" list! Such selection would also be appropriate for MS's submitted by authors who have published in a given journal but have rejected several reviewing requests since such publication. To add positive reinforcement, a second list should be published of the names of reviewers who had met their obligations in a timely fashion during the year.

Another useful possibility, recently suggested by Lehmann and Scoles (3), is that for accepted papers, the names of the reviewers who recommended publication be published on the front page of the article. Lehmann and Scoles suggest that this procedure would encourage reviewers to provide more thorough reviews to avoid having their names associated with published papers containing errors. In addition, it might also lead to shorter reviewing delays.

Widespread implementation of the above proposals might initially reduce the supply of willing reviewers, an undesirable result. But this is unlikely to be the case for the steady state once the procedure becomes well known and names are routinely published. Although implementation might weed out some of the worst offenders, especially if they did not expect to ever publish again themselves, it should cause most slow reviewers to mend their ways and begin to meet their professional responsibilities with courtesy and empathy, rather than apathy. It is remarkable what focusing a strong light on a given behavior can do to reverse ingrained bad habits previously shielded by a cloak of anonymity and perpetuated by an inadequate sense of accountability and responsibility.

1. A. Weinberg (Minerva 16(1978)1)
2. Berezin, Gordon, and Hunter (APS News, March 1995, p.7)
3. K. K. Lehmann and G. Scoles, (Physics Today, September 1995, p. 125).

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