

Picking Your Peers

Thomas Huxley wrote to his sister in 1852, "You have no idea of the intrigues that go on in this blessed world of science. Science is, I fear, no purer than any other region of human activity; though it should be ... So I must manoeuvre a little to get my poor memoir kept out of his [a competing scientist's] hands" (Huxley, 1852). Alas, Huxley's concerns are no less common today. Although editors endeavor to keep the peer review process as pristine as possible, there are variables outside of scientific merit that affect the fate of a manuscript. We studied our journal to determine variables that the author may be able to influence to increase the probability of publication. Nothing succeeds like the best data, with clear and cogent arguments, related to an important scientific or medical problem; however, knowing the non-scientific factors affecting a manuscript's chances for publication can be useful to authors. We share these results with our colleagues.

During the online submission process of the *Journal of Investigative Dermatology (JID)*, authors are invited to *suggest* reviewers as well as to identify individuals they wish to *exclude* from the review process. This is done to reduce potential bias in the review of their manuscript, although Lock (1986) reported "little objective evidence" for bias on personal grounds in peer review. We retrospectively studied 613 original reports submitted to the *JID* from January 1 through December 31, 2003, which were sent for external review. Of the 613 submissions, 321 were eventually accepted, and 292 were rejected or withdrawn. The outcome measures were final manuscript acceptance, time to first decision, and, in a subset of 40 published manuscripts, the number of citations. Stata 7 was used for statistical analysis. Editorial-board membership was used as a surrogate for scientific prowess and ability; reputation and "insider" status; and both experience with composing a technically sound manuscript and success with the peer review system. Authors suggested reviewers 54% of the time and requested exclusion of specific reviewers 17%

of the time. Requests for exclusion were honored 95% of the time.

Table 1 summarizes authors' preferences and acceptance rates. Table 2 is the results of a multivariate analysis that shows that excluding reviewers had a significant effect on manuscript acceptance, increasing the odds ratio of acceptance almost twofold. Editorial-board membership was also associated with an increased acceptance rate. Suggesting reviewers did not have a significant effect by itself.

There was no difference in turnaround time to first decision (37–38 days) among manuscripts for which submitting authors suggested reviewers, excluded reviewers, or provided no preference.

Citations were used as a measure of the quality, or at least the citability, of accepted manuscripts. The number of citations of 20 pairs of manuscripts with similar times in print was determined as of March 27 using the Institute for Scientific Information (ISI) citation database. There was no statistically significant difference ($P = 0.58$) in the number of times a paper was cited between the 20 papers for which authors had expressed

Table 1. Acceptance rate for submitted manuscripts, by author preference

Preference (number)	% of Submissions	% Accepted
Only suggested (243) ¹	39.6	52.2
Only excluded (27) ²	4.4	59.3
Suggested and excluded (83)	13.5	71.1
Neither suggested nor excluded (260)	42.4	45.8

Number of individuals suggested: ¹mode = 4; ²mode = 1.

Table 2. Effect of reviewer exclusion and editorial-board membership of an author on manuscript acceptance (multivariate analysis)

Variable	Adjusted odds ratio	95% CI	P
Suggested	1.25	0.9–1.75	0.18
Excluded	2.04	1.3–3.2	0.002
Editorial-board member	2.13	1.2–3.16	0.007

CI, confidence interval.

no preference regarding reviewers (mean number of citations: 5.6, 95% confidence interval 2.3–8.9) and the 20 papers for which authors had excluded reviewers (mean number of citations: 6.0, 95% confidence interval 4.36–7.63). This suggests that peer review identified papers of similar quality even after the exclusion of reviewers as requested by the author.

The “Matthew effect” may play a role in the process of peer review (Merton, 1968). Following the book of Matthew, “For unto every one that hath shall be given, and he shall have abundance: but from him that hath not shall be taken away even that which he hath” (Matthew 25:29), Merton suggested that the work of recognized researchers is more likely to be assessed positively than the work of less well-known researchers. In addition, attempts at blinding reviewers to authors’ identities have had only mixed results (Godlee and Dickerson, 2003; Lock, 1986).

Peer review, while used to judge whether scientific data are reasonable, is an art. Making judgment calls on the differences in the quality and the potential importance or novelty of submissions is necessary and requires an even hand. Communication among all participants in the process, including the publication of journal editors’ auditing of their own peer review systems, such as this report, will help minimize prejudicial barriers to publication. Paraphrasing Juvenal — “Quis custodiet ipsos custodes?” — guarding the guardians is a continual challenge of all communities, including scientific communities.

CONFLICT OF INTEREST

Lowell A. Goldsmith and Russell P. Hall are editors of the *Journal of Investigative Dermatology* (JID), the subject of this study, and receive a stipend from the Society for Investigative Dermatology (SID). Elizabeth N. Blalock and Heather Bobkova are employed by the SID, which owns the JID.

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Lowell A. Goldsmith¹

Editor

Elizabeth N. Blalock

Managing Editor

Heather Bobkova

Editorial Assistant

Russell P. Hall, III

Deputy Editor

¹Correspondence: Dr. Lowell A. Goldsmith, Department of Dermatology, University of North Carolina at Chapel Hill, 3100 Thurston-Bowles, CB #7287, Chapel Hill, North Carolina 27599-7287, USA. E-mail: jid@med.unc.edu

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