



Ethical Dilemmas in Academic Publishing: The Influence of Journal Impact Factor and the Misbehavior in Peer Review in Scientific Research

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Dear Editor,

The Thomson Reuters impact factor (IF) has a controversial influence on scientists' behavior. This obsession with high IF, often termed IF mania, primarily assesses a journal's popularity rather than its productivity or actual quality (1). Presently, academic structures, particularly in many developing countries, utilize IF for formal evaluations and promotions of scientists (2). Furthermore, the expansion of the "publish or perish" culture in science, which predominantly employs IF, exacerbates this issue (2). Consequently, the misuse of IF is becoming increasingly widespread.

Journals rely heavily on their editors and peer reviewers to evaluate manuscripts submitted by scientists. These individuals are tasked with providing justification and feedback to authors. The potential for fraud emerges in an environment increasingly driven by the "publish or perish" culture, along with the emphasis on citations and related factors. Editors and peer reviewers are crucial in maintaining the scientific quality and integrity of submitted papers and works. However, the ultimate responsibility for the content lies with the authors, especially the corresponding author. Peer reviewers deliver unbiased, rigorous, and comprehensive critiques to validate the submitted manuscripts (2).

Peer reviewers are expected to be experts in the field relevant to the manuscript they review. While editors might not be experts in the specific field, they are fully

responsible for evaluating peer reviewers' suggestions and determining their ethical and professional appropriateness. Occasionally, editors may need to engage multiple peer reviewers to ensure unbiased validation of the submitted scientific manuscript. The selection process for journal peer reviewers should be meticulously designed to ensure the appointment of the most suitable individuals for this critical role (3).

When scientists submit a manuscript to a journal, peer reviewers may request that the authors add additional citations to the literature. It is crucial to assess the validity of such requests ethically and professionally. The authors may encounter situations where peer reviewers suggest citations to their literature (self-citation) or to literature from the journal for which they are reviewing. Most commonly, these requests pertain to the introduction or discussion sections, but occasionally they extend to the methodology section of the manuscript. Strengthening the manuscript's argument and enhancing the background for understanding the study will make these adjustments ethically and professionally acceptable. However, authors may sometimes fear rejection for not adhering to these suggestions, especially when the recommended citations are irrelevant to their manuscript (4).

While it is undeniable that reviewers are primarily motivated by the opportunity to advance the field of study, there may be other, less noble incentives at play. These include enhancing their profiles on Google

Scholar and similar platforms, which summarize a researcher's output regarding citations and other citation-based metrics, such as the h-Index and i10-Index. This dynamic increases the likelihood of reviewers making unethical self-citation requests as a precondition for manuscript acceptance (5).

A study analyzing 1,314 papers and 1,717 reviewers, which focused on detecting citation bias, concluded that such bias existed in both the ICML 2020 and EC 2021 venues. The present study observed that there were statistically significant differences in the behavior of reviewers who self-cited and those who did not, even after accounting for confounding factors. This indicates that when a reviewer's work is cited in a submission, it leads to a positive bias towards that submission, affecting the reviewer's evaluation beyond the submission's actual scientific merit (5). Although peer reviewing is typically voluntary, the study found that peer reviewers often seek personal gain by requesting self-citations.

In another study, 932 peer review reports from 373 manuscripts were analyzed. It was found that requests for self-citation were significantly more likely to be incorporated into the published manuscript than independent citations. Furthermore, a significant interaction was observed between the presence of self-citation requests and the likelihood of any citation request being incorporated. This study concluded that the transparency of open peer review might inadvertently encourage authors to incorporate self-citation requests by revealing the identities of peer reviewers (4).

The ethical guidelines of the Committee on Publication Ethics (COPE) (3) stipulate that peer reviewers should only request the citation of their own or their associates' work when it is crucial to enhance the quality of a scientific publication. Self-citations should not be suggested merely to increase the visibility of the reviewer's or associates' work in academic circles. In a study examining 300 manuscripts and 645 peer reviews, self-citations were statistically significantly higher in reviews recommending revision or acceptance (33%) compared to those suggesting rejection. Notably, the proportion of self-citations without any justification (21%) was significantly greater than citations of others' work lacking rationale (5%) (6).

Authors may fear manuscript rejection if they disregard such self-citation requests, placing them in an uncomfortable position of complying with unethical

demands to secure journal acceptance. This practice puts undue pressure on authors and challenges the integrity of the peer review process. To address this issue, several measures should be implemented. First, peer reviewers must be chosen based on stringent, impartial, and scholarly criteria, and their performance should be assessed routinely. Second, sanctions should be established for editors or peer reviewers who engage in unethical practices, such as making self-serving requests. Third, COPE should develop guidelines for evaluating requests for citations to peer reviewers' work and other types of requests.

Footnotes

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