

Ethical considerations during the Peer review process.

Peer review is the expert evaluation of scientific articles. Peer review validates scientific research and aids in the improvement of published manuscript quality. The main ethical concern is preventing erroneous and unsustainable findings from being published, which could mislead future research. Reviewers are encouraged to follow ethical guidelines throughout the peer review process, just as authors do before, during, and after writing a research paper, as outlined by the Committee on Publication Ethics (COPE).¹ Some of the fundamental principles to be followed during peer review are highlighted below:

1. **Confidentiality:** It is essential for preventing idea theft, which could jeopardize the originality of a new study. To that end, peer reviewers should follow certain guidelines as mentioned below:
 - Do not discuss the manuscript or review with anyone other than the journal's editors.
 - Do not use information about the manuscript or review to anyone's advantage or disadvantage.
2. **Objectivity:** Objectivity is required to provide authors with a fair assessment of their manuscript.² Peer reviewers are thus encouraged to
 - Avoid negative bias, such as prejudice against a nationality (based on affiliation and/or language), a research topic, or negative results.
 - Avoid positive bias, such as favouritism based on an author's recognition, as in the case of honorary authorship.
 - To reduce bias, reviewer's and authors' names are hidden during the double-blind review. In blinded peer reviews, information is kept hidden from the authors to reduce the possibility of confrontation or retaliation, allowing for a more candid critique.
 - Declare any conflicting or competing interests, such as working on the same research topic as the authors/direct competition, having a close personal relationship or collaboration with the authors, or recently co-authoring with the authors.
 - Refrain from requesting citations of their work for monetary gain.
 - Avoid making derogatory personal remarks.
3. **Timeliness and conscientiousness:** This entails conducting a thorough, appropriate, and honest evaluation of a manuscript, which is heavily reliant on objectivity. Have expertise in the subject area. Peer reviewers who agree to review a manuscript should have the following qualifications:
 - Be open and honest with the journal about your identity.

- Plan to submit a review and be willing to accept resubmissions and revisions.
- Read the manuscript carefully, even if it has already been reviewed by another journal.
- Respond to the review as soon as possible.



Pallavi Ahluwalia

- Follow the scope, policies, and peer review model of the journal.
 - Report any possible ethical issues, such as duplicate publication, data fabrication, or unethical design.
 - Reviewers should provide constructive feedback to both the authors and the editors in a respectful tone, rather than unfounded criticism, including recommendations for relevant references, experiments that would improve the study, and ways to improve clarity.
4. Regarding the final guideline, some have stated that suggested additions should be directly relevant as well as feasible in terms of both cost and time required. Finally, a referee should provide information that allows the editors to make a confident decision while also allowing the authors to truly strengthen their paper.
 5. Rude comments from reviewers are unacceptable and should be avoided.

During the peer review process, various types of bias are encountered, including gender bias, language bias, affiliation bias, institution bias, country bias, and journal bias, among others. Editor bias can exist, which means that editors are more likely to send manuscripts for review if they have met the authors. Editors are more likely to send manuscripts for review if they have met the authors or are already familiar with their work, if the authors are from recognized/famous institutions, if the authors are known to the editors, or if the authors are well-known to the editors. Editors may select "soft" or "hard" reviewers. Conflicts of interest may influence decisions. Peer reviewer bias is possible. Peer reviewers, for example, can request that authors delete outcomes, combine outcomes, or modify analyses. Non-significant results may be denied publication or may be rejected or delayed (if they do not accord with their own beliefs).

Bias (Type of peer review)

1. **Single-blind Peer Review** – While famous authors and prestigious institutions benefit from single-blind peer review, junior investigators suffer. It is possible to discriminate against the author based on his or her nationality, native language, gender, or institution.



2. *Double-Blind Peer Review*: Instead of focusing on proper review, a reviewer may spend more time and deliberate delay can uncover the author's identity, instead of focusing on proper review.
3. *Triple-blind review*: Authors, reviewers, and Editors all are unaware of each other.
4. Cascading peer review, also known as waterfall peer review, occurs when a paper that has been rejected following peer review is forwarded to another journal along with the reviewer's report. The review process may be expedited because the Editor may consider reports from previous reviews in addition to new reviews.
5. *Open peer review*: The identities of the author and reviewer are revealed to each other, or it may refer to a system in which the reviewer's comments are published alongside the articles. Hostility and retaliation between authors and reviewers are possible outcomes. It is linked to a higher rate of refusal from reviewers. It usually takes more time to write the reviews. Journals may request reviewers from authors, who may be more favourable than those nominated by the Editors. This system's supporters believe it increases transparency.

Bias from Researchers

1. Gift authorship: including names of authors, who have not made a substantial contribution?
2. Ghost authorship: substantially contributed but omitted.
3. Fabricated data- Data that is made up.
4. Falsified data - data that has been unjustifiably altered to produce more impressive/convenient results.
5. Data stealing/theft- Using someone else's data without their consent.
6. Results that agree with the opinions of an editor. An author may submit only positive results.
7. Unacceptable bias -ignore data that does not fit a particular point of view
8. Use of self-citations and citations "in the press" authors inadvertently reveal identity.

Hence it is prudent to identify bias. The following points may help to identify bias-

- a. Identify Reviewers who ask authors to cite their paper.
- b. Editor who asks authors to cite his papers or papers from his journal.
- c. Reviewer reviewing his papers or those of his friends to accept them Reviewer rejecting papers because of conflict of interest.
- d. Reviewer who discloses publicly an unpublished paper.

Basic Principles to be Followed during the Review-

Always treat the paper with the utmost confidentiality. Provide evidence for the statements you make in your report, where appropriate. Take an objective, independent approach to the work, putting aside personal feelings, and conduct yourself professionally, courteously, collegially, and politely. Never contact the authors directly, and never use foul language.

These are the Ethical principles to be followed during peer review:

Be objective. Mention what is good about the article. Look for uniqueness. Recognize the significance of your work. Recognize that no study is without flaws. Make a positive contribution. Be thorough and considerate. Examine the quality of the ideas as well as the outcomes. Make your points as specific and factually correct as possible. Recognize the difference between opinion and facts. Be civil.

Can we prevent author bias?

Authors must follow the guidelines established by the journals. Revise per the reviewer's suggestions. Check that the article adheres to ethical standards. They have the right to appeal against the decision if they believe it is unfair.

Can we prevent reviewer bias?

Rather than providing a report in their own words, use standard checklists. Young researchers can improve their skills by enrolling in various Peer review training courses

To conclude, Maintain confidentiality. A reviewer may feel bad about rejecting a paper and sympathize with the authors, but she or he must be able to make such a recommendation when it is necessary. Be an agent of the journal and not the friend of the author. Remember that as a reviewer, you are aiming to improve the journal's as well as specialty standards. Provide scientific expertise rather than editorial assistance. Do not focus solely on minor issues such as misspellings, typing errors, etc. When the paper is processed for publication, such errors are found and corrected by journal's editing team. In case reviewer feels that author is not fluent in English, he or she may write to Editor that article requires major Editorial assistance. The reviewer should strive to provide reviews that meet both ethical and scientific standards.

References

1. Committee on Publication Ethics. Committee on Publication Ethics (COPE). Guidelines on good publication practice. *J Postgrad Med.* 2000 July-Sep;46(3):217-21. PMID:11298477.
2. M. Callahan, D. Schriger, R.J. Cooper (2014). *An Instructional Guide for Peer Reviewers of Biomedical Manuscripts.*