



Addressing citation manipulation: Advice for authors, reviewers and editors

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ABSTRACT

An inappropriate request for citations (IRC) occurs when a reviewer asks the authors of the reviewed manuscript to cite multiple papers with the sole purpose of boosting the reviewer's own citation index. In the past several years, we have witnessed a steady increase of IRC cases both in terms of frequency and scope. While some relevant ethical guidelines have been provided by the Committee on Publication Ethics (COPE), we feel that the problem is persistent and requires a coordinated response from editors, authors and reviewers. This article provides advice from the editors of *Results in Physics* for identifying and avoiding IRCs as well as for preventing the appearance of scientifically unmotivated citations in published papers.

Introduction

An alarming phenomenon that we encounter in our journal with an increasing frequency is reviewers asking for citations to their own work. The problem has been recognized for some time. Committee on Publication Ethics (COPE) provides the following guidelines for reviewers [1]:

“Refrain from suggesting that authors include citations to your (or an associate's) work merely to increase citation counts or to enhance the visibility of your or your associate's work; suggestions must be based on valid academic or technological reasons”.

In our reviewer invitation letters, we routinely include the following language:

“As a Reviewer, we discourage you from asking the authors to cite your own work, or the work of your collaborators. In limited cases where this is manifestly needed, such requests should be made explicitly and with sufficient evidence that dissolves any perception of self-promotion. Editors reserve the right to omit requests for citations made by reviewers”.

And yet, attempts of citation manipulation by reviewers are becoming pervasive. Some reviewers, when contacted, have replied that the existing guidelines are not very clear or specific. Under the circumstances, we feel that it would be useful to provide detailed guidelines and definitions that could help reviewers, authors and editors navigate the situations involving potential manipulation of citations. This article provides such details based on the experience of several editors of this journal who have collectively handled thousands of manuscripts and a similar number of reviewer reports.

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Inappropriate requests for citations (IRCs)

Requests for citation are inappropriate when they are made with the intent to boost the reviewer's citation index rather than to improve the manuscript or make it more valuable and informative to the reader. In our experience, IRCs have the following tell-tale signs:

1. Papers that a reviewer requests to cite are listed as incomplete bibliographic records, with the author(s) names omitted, or with only the first author given (typically, if different from the reviewer) and the rest replaced by “et al.” Often, only doi references are given. This is done to hide from the handling editor the fact that the reviewer is a co-author on all or almost all listed papers.
2. Several (e.g., three or more) papers are listed without an explanation of the individual content of these papers and of their specific relevance to the manuscript under review.
3. The request to cite is made in a generic way, typically, taking the form of a suggestion that the authors should “enrich their discussion”, or that the authors should compare their results to those obtained in recent publications.
4. The rest of the report is shallow and schematic, often taking the form of brief numbered points picking on small or insignificant elements of the manuscript, or simply written as remotely relevant questions.
5. The report indicates explicitly that the reviewer wants to see the revised manuscript before making a recommendation.
6. The report is written carelessly and some comments are hard to understand.

7. Finally, reviewers who engage in IRCs often accept invitations to review papers that are far outside of their expertise. Editors can see that such reviewers have provided many more reports to the journal or the publisher than other similarly qualified reviewers. Sometimes, reports on different manuscripts from the same reviewer contain similar or identical parts, especially, the parts that request citations.

While it is possible that legitimate reviews may have some of the elements above (for example, some reviewers might use doi's for references without an IRC intent), editors should be motivated to look for potential citation manipulation when they encounter one or more warning signs listed above. The next section provides an advice to reviewers on how to avoid semblance of an IRC.

Advice to reviewers

Not all requests for citations are inappropriate. Sometimes it is reasonable and constructive for reviewers to point out their own work in the report. To avoid semblance of an IRC, we recommend to adhere to the following practices.

1. Always provide the complete bibliographic record of any paper mentioned in the report including a complete list of authors. It may be awkward to put own name on the report, but the information is discoverable anyway.
2. When asking to cite a paper, explain in detail why. It might be the case that some elements of the manuscript under review are not novel or contradict previously obtained results. If so, just say this in a collegial and non-inflammatory manner. If possible, mention specific equations, figures, or data.
3. When providing a reference, list only the first or the most comprehensive paper in a series. Authors will be able to conduct further literature search on their own.
4. If the manuscript under review is not novel, it should be rejected. Recommend revision and additional citations only if the manuscript contains some non-novel elements but the main results are novel.
5. Make sure to comment on all aspects of the manuscript and not get fixated on missing citations.
6. Do not indicate that your final recommendation will depend on the authors citing a particular paper.

Some reviewers may not be comfortable bringing their own work up even if it should have been cited by the manuscript authors for legitimate scientific reasons. This can happen, for example, if there is a power differential between the authors and the reviewer. In such cases, it may be useful to bring the concern to the attention of the handling editor confidentially. The editor will likely be able to address any problem with citations discretely without placing the reviewer in a vulnerable position.

Advice to authors

Although authors often feel powerless and at the mercy of editors and reviewers, such feelings are rarely justified. A journal cannot publish a paper without the authors' consent, but it does need to publish good papers. This alone provides authors with a strong leverage. Moreover, editors (at least, in good journals) are not merely conduits of material between the authors and reviewers. When in doubt, contact your handling editor! This being said, authors share the responsibility for accurate and ethical citation. In this context, we can offer the following advice.

1. If you receive an obvious IRC, do not just comply. Even though it may seem that complying is the easiest way to achieve publication, improper citations can diminish the scientific value of

your paper and impact negatively your reputation. Instead, bring the instance of the IRC to the attention of the handling editor confidentially. If the paper is eventually rejected (obviously, we cannot guarantee that this will not happen), it would probably be to your advantage. Just submit the work to a different journal. However, it is more likely that the editor will take your concern seriously and there will be no adverse effects for the consideration of your paper.

2. Do not practice summary citation ("there have been a lot of recent interest in solar cells [1-56]"). Cite papers for specific reasons and cite only those papers that are directly relevant to your work, unless it is a review article. Do not cite papers because their authors are famous and you hope to project importance by association. Do not make citations to support claims that are trivial or common knowledge.
3. It is however appropriate and required to cite the sources on which your own work is based, from which you learned your methods, or which contain directly relevant results. Remember: giving the proper credit to other scientists does not take away any significance or impact from your paper but, rather, gives it strength and scientific integrity.
4. When referring to your own work, make sure that the reader knows this is the case. For example, if [A] is a self-reference, then, instead of writing "it was shown that (something) [A]", write "we have shown that (something) [A]".
5. Finally, be aware of misleading or nuisance citations. Cite papers in such a way that the reader would be able to make an informed decision whether to read the referenced article and not waste time following irrelevant or dead-end leads.

Advice to editors

We advocate and strive ourselves to follow the practices listed below, which can help meeting the challenge of IRCs and avoiding a reputation damage to the journal.

1. First of all, be diligent and check all reviews for possible IRCs.
2. If a report contains a clear case of an IRC but is otherwise reasonable, redact the IRC part before forwarding it to the authors. It is OK to leave recommendations like "the authors should review the more recent literature on the subject" but without a specific list of papers. Make it clear in the reviewer invitation letters that editors reserve the right to omit requests for citations made by reviewers.
3. If a report contains an IRC and is otherwise not useful, it may be appropriate to withhold this report from the authors and contact additional reviewers.
4. Do not rely only on reports containing IRCs for making a decision.
5. A reviewer who has provided an otherwise useless report containing a clear case of an IRC has done this on purpose and with an understanding that the practice is unethical. Do not invite this reviewer again.

Summary

It is difficult to provide definitions and recommendations that will apply to all real-life situations. IRCs and other forms of citation manipulation will remain a permanent feature of the scientific publishing landscape, and the stakeholders should address this challenge by being flexible and creative. The purpose of this article is to raise awareness and help reviewers, authors and editors understand the IRCs and develop best practices for avoiding potential problems. The main strategies that we advocate are learning to recognize the IRCs, diligence, and transparency.

Declaration of competing interest

The author declares that he has no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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References

- [1] COPE. Ethical guidelines for peer reviewers. 2017, <http://dx.doi.org/10.24318/cope.2019.1.9>.