

Peer-Review Policy

Purpose of Peer Review

Peer review is a critical element of scholarly publication, and one of the major cornerstones of the scientific process. Peer Review serves two key functions:

- Acts as a filter: Ensures research is properly verified before being published
- Improves the quality of the research: rigorous review by other experts helps to hone key points and correct inadvertent errors

Ethical Guidelines for Reviewers

- Reviews should be objective evaluations of the research. If you cannot judge a paper impartially, you should not accept it for review or you should notify the editor as soon as you appreciate the situation. If you have any professional or financial affiliations that may be perceived as a conflict of interest in reviewing the manuscript, or a history of personal differences with the author(s), you should describe them in your confidential comments. A conflict of interest will not necessarily eliminate you from reviewing an article, but full disclosure to the editor will allow them to make an informed decision. For example; if you work in the same department or institute as one of the authors; if you have worked on a paper previously with an author; or you have a professional or financial connection to the article. These should all be listed when responding to the editor's invitation for review.
- If, as a reviewer, you believe that you are not qualified to evaluate a component of the research, you should inform the editor in your review. Does the article you are being asked to review truly match your expertise? The Editor who has approached you may not know your work intimately, and may only be aware of your work in a broader context. Only accept an invitation if you are competent to review the article.
- Reviews should be constructive and courteous and the reviewer should respect the intellectual independence of the author. The reviewer should avoid personal comments; JFR reserves the right to edit out comments that will hinder constructive discussion of manuscripts.
- Reviewing an article can be quite time consuming. The time taken to review can vary greatly between disciplines and of course on article type, but on average, an article will take about 5 hours to review properly. Will you have sufficient time before the deadline stipulated in the invitation to conduct a thorough review? Just as you wish prompt evaluations of your own research, please return your reviews within the time period specified when you were asked to review the paper. If you cannot conduct the review let the editor know immediately, and if possible advise the editor of alternative reviewers.

- The review process is conducted anonymously; JFR never reveals the identity of reviewers to authors. The privacy and anonymity provisions of this process extend to the reviewer, who should not reveal his or her identity to outsiders or members of the press. The review itself will be shared only with the author, and possibly with other reviewers and our Board. You should not attempt to contact the author.
- The submitted manuscript is a privileged communication and must be treated as a confidential document. Please destroy all copies of the manuscript after review. Please do not share the manuscript with any colleagues without the explicit permission of the editor. Reviewers should not make personal or professional use of the data or interpretations before publication without the authors' specific permission (unless you are writing an editorial or commentary to accompany the article).

Manuscripts judged to be of potential interest to our readership are sent for formal review, typically to two reviewers, but sometimes more if special advice is needed (for example on statistics or a particular technique).

The editors then make a decision based on the reviewers' advice, from among several possibilities:

- Accept, with or without editorial revisions
- Invite the authors to revise their manuscript to address specific concerns before a final decision is reached
- Reject, but indicate to the authors that further work might justify a resubmission
- Reject outright, typically on grounds of specialist interest, lack of novelty, insufficient conceptual advance or major technical and/or interpretational problems

Reviewers are welcome to recommend a particular course of action, but they should bear in mind that the other reviewers of a particular paper may have different technical expertise and/or views, and the editors may have to make a decision based on conflicting advice. The most useful reports, therefore, provide the editors with the information on which a decision should be based. Setting out the arguments for and against publication is often more helpful to the editors than a direct recommendation one way or the other.

Editorial decisions are not a matter of counting votes or numerical rank assessments, and we do not always follow the majority recommendation. We try to evaluate the strength of the arguments raised by each reviewer and by the authors, and we may also consider other information not available to either party. Our primary responsibilities are to our readers and to the scientific community at large, and in deciding how best to serve them, we must weigh the claims of each paper against the many others also under consideration.

We may return to reviewers for further advice, particularly in cases where they disagree with each other, or where the authors believe they have been misunderstood on points of fact. We therefore ask that reviewers should be willing to provide follow-up advice as requested. We are very aware, however, that reviewers are usually reluctant to be drawn into prolonged disputes, so we try to keep consultation to the minimum we judge necessary to provide a fair hearing for the authors.

When reviewers agree to assess a paper, we consider this a commitment to review subsequent revisions. However, editors will not send a resubmitted paper back to the reviewers if it seems that the authors have not made a serious attempt to address the criticisms.

We take reviewers' criticisms seriously; in particular, we are very reluctant to disregard technical criticisms. In cases where one reviewer alone opposes publication, we may consult the other reviewers as to whether s/he is applying an unduly critical standard. We occasionally bring in additional reviewers to resolve disputes, but we prefer to avoid doing so unless there is a specific issue, for example a specialist technical point, on which we feel a need for further advice.

The Review

We ask peer-reviewers to keep in mind that every paper that is accepted means that another good paper must be rejected. To be published in JFR, a paper should meet four general criteria:

- Provides strong evidence for its conclusions.
- Novel (we do not consider meeting report abstracts and preprints on community servers to compromise novelty).
- Of extreme importance to scientists in the specific field.
- Ideally, interesting to researchers in other related disciplines.

You would be expected to evaluate the article according to the following:

Originality

Is the article sufficiently novel and interesting to warrant publication? Does it add to the canon of knowledge? Does the article adhere to the journal's standards? Is the research question an important one? In order to determine its originality and appropriateness for the journal, it might be helpful to think of the research in terms of what percentile it is in? Is it in the top 25% of papers in this field? You might wish to do a quick literature search using tools to see if there are any reviews of the area. If the research has been covered previously, pass on references of those works to the editor.

Structure

Is the article clearly laid out? Are all the key elements (where relevant) present: abstract, introduction, methodology, results, conclusions? Consider each element in turn:

- **Title:** Does it clearly describe the article?
- **Abstract:** Does it reflect the content of the article? Where graphical abstracts and/or highlights are included, please check the content and if possible make suggestions for improvements. Follow these links for more information on graphical abstracts and highlights.
- **Introduction:** Does it describe what the author hoped to achieve accurately, and clearly state the problem being investigated? Normally, the introduction should summarize relevant research to provide context, and explain what other authors' findings, if any, are being challenged or extended. It should describe the experiment, the hypothesis(es) and the general experimental design or method.
- **Method:** Does the author accurately explain how the data was collected? Is the design suitable for answering the question posed? Is there sufficient information present for you to replicate the research? Does the article identify the procedures followed? Are these ordered in a meaningful way? If the methods are new, are they explained in detail? Was the sampling appropriate? Have the equipment and materials been adequately described? Does the article make it clear what type of data was recorded; has the author been precise in describing measurements?
- **Results:** This is where the author/s should explain in words what he/she discovered in the research. It should be clearly laid out and in a logical sequence. You will need to consider if the appropriate

analysis has been conducted. Are the statistics correct? If you are not comfortable with statistics, please advise the editor when you submit your report. Interpretation of results should not be included in this section. Finally, on balance, when considering the whole article, do the figures and tables inform the reader, are they an important part of the story? Do the figures describe the data accurately? Are they consistent, e.g. bars in charts are the same width, the scales on the axis are logical.

- **Conclusion/Discussion:** Are the claims in this section supported by the results, do they seem reasonable? Have the authors indicated how the results relate to expectations and to earlier research? Does the article support or contradict previous theories? Does the conclusion explain how the research has moved the body of scientific knowledge forward?
- **Language:** If an article is poorly written due to grammatical errors, while it may make it more difficult to understand the science, you do not need to correct the English. You should bring this to the attention of the editor, however.
- **Previous Research:** If the article builds upon previous research does it reference that work appropriately? Are there any important works that have been omitted? Are the references accurate?
- **Plagiarism:** If you suspect that an article is a substantial copy of another work, please let the editor know, citing the previous work in as much detail as possible
- **Fraud:** It is very difficult to detect the determined fraudster, but if you suspect the results in an article to be untrue, discuss it with the editor
- **Other ethical concerns:** For medical research, has confidentiality been maintained? Has there been a violation of the accepted norms in the ethical treatment of animal or human subjects? If so, then these should also be identified to the editor

Writing the review

The primary purpose of the review is to provide the editors with the information needed to reach a decision. The review should also instruct the authors on how they can strengthen their paper to the point where it may be acceptable. As far as possible, a negative review should explain to the authors the weaknesses of their manuscript, so that rejected authors can understand the basis for the decision and see in broad terms what needs to be done to improve the manuscript for publication elsewhere. This is secondary to the other functions, however, and referees should not feel obliged to provide detailed, constructive advice to authors of papers that do not meet the criteria for JFR. If the reviewer believes that a manuscript would not be suitable for publication, his/her report to the author should be as brief as is consistent with enabling the author to understand the reason for the decision.

Confidential comments to the editor are welcome, but it is helpful if the main points are stated in the comments for transmission to the authors. The ideal review should answer the following questions:

- Who will be interested in reading the paper, and why?
- What are the main claims of the paper and how significant are they?
- Is the paper likely to be one of the five most significant papers published in the discipline this year?
- How does the paper stand out from others in its field?
- Are the claims novel? If not, which published papers compromise novelty?
- Are the claims convincing? If not, what further evidence is needed?
- Are there other experiments or work that would strengthen the paper further?
- How much would further work improve it, and how difficult would this be? Would it take a long time?
- Are the claims appropriately discussed in the context of previous literature?
- If the manuscript is unacceptable, is the study sufficiently promising to encourage the authors to resubmit?
- If the manuscript is unacceptable but promising, what specific work is needed to make it acceptable?

Other questions to consider

We appreciate that reviewers are busy, and we are very grateful if they can answer the questions in the section above. However, if time is available, it is extremely helpful to the editors if reviewers can advise on some of the following points:

- Is the manuscript clearly written?
- If not, how could it be made more clear or accessible to non-specialists?
- Would readers outside the discipline benefit from a schematic of the main result to accompany publication?
- Could the manuscript be shortened? (Because of pressure on space in our printed pages we aim to publish manuscripts as short as is consistent with a persuasive message.)
- Should the authors be asked to provide supplementary methods or data to accompany the paper online? (Such data might include source code for modelling studies, detailed experimental protocols or mathematical derivations.)
- Have the authors done themselves justice without overselling their claims?
- Have they been fair in their treatment of previous literature?
- Have they provided sufficient methodological detail that the experiments could be reproduced?
- Is the statistical analysis of the data sound, and does it conform to the journal's guidelines?
- Are the reagents generally available?
- Are there any special ethical concerns arising from the use of human or other animal subjects?

Editing referees' reports

As a matter of policy, we do not suppress reviewers' reports; any comments that were intended for the authors are transmitted, regardless of what we may think of the content. On rare occasions, we may edit a report to remove offensive language or comments that reveal confidential information about other matters. We ask reviewers to avoid statements that may cause needless offence; conversely, we strongly encourage reviewers to state plainly their opinion of a paper. Authors should recognise that criticisms are not necessarily unfair simply because they are expressed in robust language.