

What Peer Reviewers really look for

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Brief Bio

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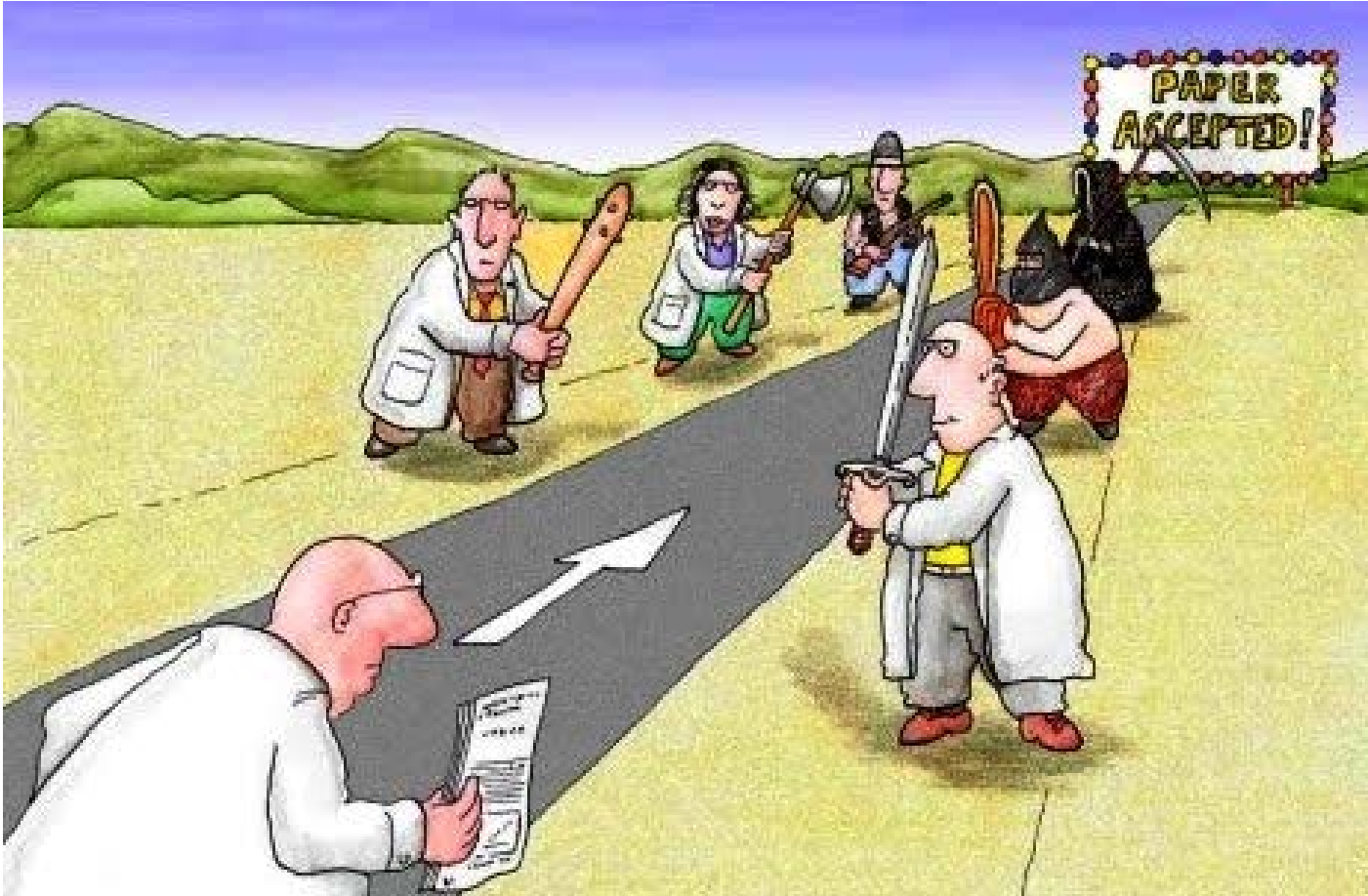
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1.0

**Fundamentals of Peer
Review**

The Peer Review Process



Cartoon by Nick D Kim, strange-matter.net

The Peer Review Process

"Peer review is the system used to assess the quality of scientific research before it is published. Researchers in the same field scrutinise research papers for validity, significance and originality to help editors assess whether research papers should be published in their journal.

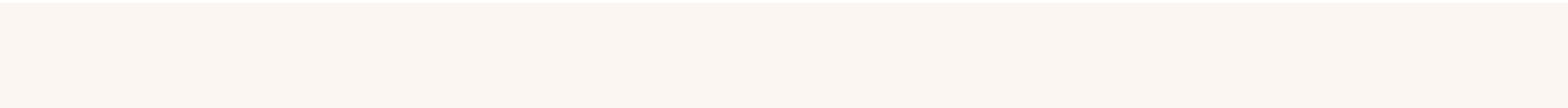
Peer review [...] is fundamental to all stages of the research process. [...], and it's also an important consideration for policymakers, reporters and the public when weighing up research claims and debates about evidence.

The peer review process judges the validity, significance and originality of the work, rather than the person who has done it. This makes it the best system available to give authors feedback and select which research should be brought to wider attention."

Sense about Science (independent charity promoting public interest in sound science and evidence)
<https://senseaboutscience.org/activities/peer-review-the-nuts-and-bolts-2/>



The Editorial Process





The Importance of Peer Review

For Editors, Reviewers and Authors

1

Editors

- Helps to decide what to publish and where
- Improves plagiarism and integrity issue detection
- Involves experts to guide the future direction of the journal/field

2

Reviewers

- Keeps reviewers informed of innovative research
- Improves reputation
- Increases collaboration
- Allows contribution to advancement

3

Authors

- Improves the manuscript
- Strengthens the legitimacy of the final published work
- May spark ideas for future research

The Importance of Peer Review

For Readers and the Community

4

Readers

- Provides assurance of an article's scientific validity to justify investing time in reading it
- Supports readers in making an informed judgement

5

Community

- Maintains standards of scientific quality
- Ensures the next generation of researchers (and the public) are taught correctly

The Peer Review Process

Models of Peer Review

Single anonymous: Reviewers know who the authors are.

Double anonymous: Reviewers do not know who the authors are.

Open: Authors will be aware of the reviewers' names during the peer review process and vice versa. Reviewers' names are included on the peer review reports.

Transparent: Peer review reports are published alongside the article. The name of the reviewer is not published unless they opted in.

Closed: Reviewers will be treated anonymously, and the pre-publication history of each article will not be made available.

Portable: Offers authors the option to transfer the manuscript together with the reviewer reports to another journal.

The Peer Review Process

When to Peer Review

Peer Reviewed:

Original Research, Case Reports/Series, Systematic Reviews and Meta-Analyses, Reviews, Opinions

Not Peer Reviewed:

Editorials, Comments, Book Reviews



2.0

**Role of the Editor and
the Reviewers**



What are Editors looking for?



The Peer Review Process

What are Editors looking for?

At the BMC Flagship journals, we look for papers with potential, including their likely impact and significance in a field.

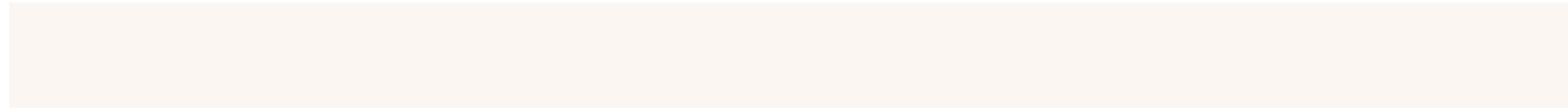
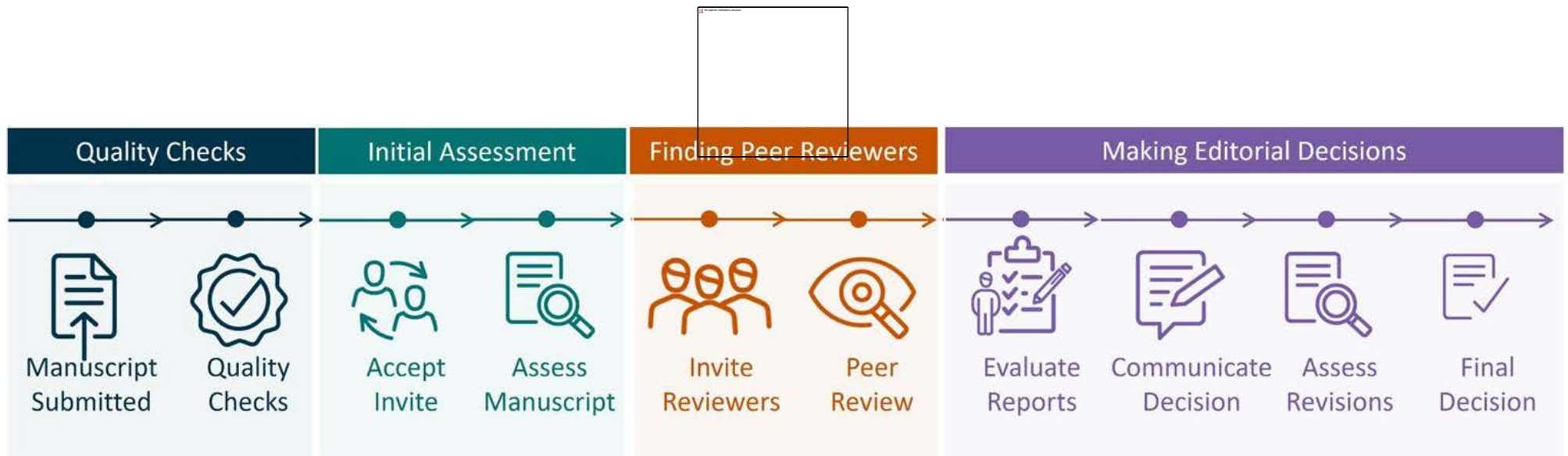
Studies must be **scientifically robust and fit the scope of the journals**; including:

- Make a significant, original contribution to the field;
- A scientifically sound research question;
- Use of appropriate methods and analyses;
- Follow community-agreed standards and policies.



The Peer Review Process

How Editors choose Reviewers



The Peer Review Process

How Editors choose Reviewers

- Aim to make decisions on all submitted manuscripts based on the advice of **at least two independent reviewers**.
 - May need more, particularly if multidisciplinary.
- Reviewers should be **well-qualified and up-to-date** on the subject matter and methodology.
- **Criteria for suitable reviewers:**
 - ✓ Knowledge of the field and technical expertise;
 - ✓ Active publication record;
 - ✓ Fair and constructive, free of any potential bias;
 - ✓ Reviewers independent of each other;
 - ✓ Good attention to detail;
 - ✓ Familiarity with journal standards.

The Peer Review Process

What Reviewers assess

- **Reviewers assess whether:**
 - Conclusions are supported;
 - Data are of high quality;
 - Appropriate controls have been used;
 - Experimental approach and analyses meet the field standards;
 - Sufficient methodological information is provided.

- **Reviewers advise on:**
 - Extent of scientific advance;
 - Interest to the field;
 - Potential impact on future research;
 - Overlap with previous work.



The Peer Review Process

How Editorial Decisions are made





The Peer Review Process

How Editorial Decisions are made

- **Editors, not reviewers, take the ultimate responsibility for decisions.**
 - **We do not count votes**; we consider arguments;
 - **We make our own decisions** and overrule reviewers;
 - **We use our judgement** on which of the requests are feasible;
 - **We uphold rigorous standards** for peer review.



The Peer Review Process

Revising a Manuscript

- The goal of peer review is to improve papers and ensure that they report robust, rigorous research.
 - Aim to **address the major issues**, particularly those emphasized by the editor;
 - Remember that we try to **avoid ineffective revision cycles** and numerous rounds of review;
 - **Consult with your editor** who can provide guidance and resolve disputes.



The Peer Review Process

Revising a Manuscript

- **Make the most of your opportunity to revise.**
 - Resubmit only after you have addressed all key points;
 - If further experiments are needed, do not dismiss critical requests;
 - Expect that your manuscript will be re-reviewed.
- **An effective point-by-point response:**
 - Views the critiques as opportunity for improvement;
 - Explains if and why specific points have not been addressed;
 - Is professional and diplomatic.



The Peer Review Process

Reasons for Rejecting after Peer Review

- The conclusions are not sufficiently supported.
- There are significant technical concerns.
- The interpretation is ambiguous or flawed.
- The findings are not sufficiently novel.
- The results are not significant enough for the field.
- The paper lacks a critical element (such as mechanistic/physiological/clinical insight).

3.0

**Examples of Reviewer
reports and Summary**



Examples of Reviewer Reports

'This article describes the process in which a new 105-item inventory of human flourishing was created for the Global Flourishing Study.

There are several **formatting issues**; which make me question whether it is suitable to be published in BMC Global and Public Health in it's current format.

The editor informs me this is a Correspondence Article, which should be a 'concise peer-reviewed article and include data, guidelines, or policies' – with a word limit of 800-3000 words (<https://bmcglobalpublichealth.biomedcentral.com/submission-guidelines/preparing-your-manuscript/correspondence>). Currently this report has a word count of over 13,000 words. Therefore I do not think that this would be a suitable article format for the journal.

Also, key Declarations such as Ethics approval, Authors' contribution, Funding etc. which all manuscripts must include, according to BMC Global and Public Health guidelines was missing from the manuscript. [...]



Examples of Reviewer Reports

'Thank you for the opportunity to review this manuscript. I enjoyed reading it and agree that the GFS data provide a unique opportunity to better understand the relationship between childhood experiences and adult SRH. Although I thought it was a strong paper overall, in the interest of providing constructive feedback here are some areas that deserve further consideration and possible revision.

Abstract • It overstates the evidence laid out in the paper.

Theoretical and empirical background • This section reviews childhood determinants of adult health broadly, with SRH only occasionally mentioned. This lack of clarity carries into the Discussion [...] There simply needs to be a clear through line of SRH in the manuscript, given that it is the outcome of interest.

Hypotheses • H2 combines two distinct elements: 1) there are associations across countries, and 2) the variation reflects differing sociocultural etc. contexts. The first claim is directly tested and supported by the analysis, but the second is not examined in this paper. [...]

Methods • requests to clarify data collection methodology and specific measures and scales.

Results • I would suggest saving interpretive comments for the discussion. • I wonder if there could be a more visual summary of the country-level results.

Additional comments on Discussion and Supplement.'



Summary

The Peer Review Process

- Peer review is **essential**.
 - Benefits editors, authors, reviewers, readers and the community.
- Editors choose reviewers **carefully** to make informed decisions in line with journal standards.
- Reviewers are expected to be **fair and constructive**.



Thank you!