Ins and Outs of Peer Review for Manuscripts and Other Projects

Peer review is important.

Clearly conscientious peer review is essential to the continued advance of science...

Reviewing is nice...

It is an honor and a privilege to be selected as a reviewer and to have an opportunity to work cooperatively and constructively as teacher or mentor to the author.

- Roberts et al. 2004

...but reviewing is not easy.

The task of the reviewer is... to see what the authors have not seen...

The process of properly reviewing a manuscript is not intuitive, but instead requires training and experience, which are not easily acquired.

- Provenzale & Stanley 2005

Good quality reviews are nice...

The most important traits [of a reviewer] are courtesy, fairness, and punctuality...

...treat all manuscripts in the same manner that you would want your own treated.

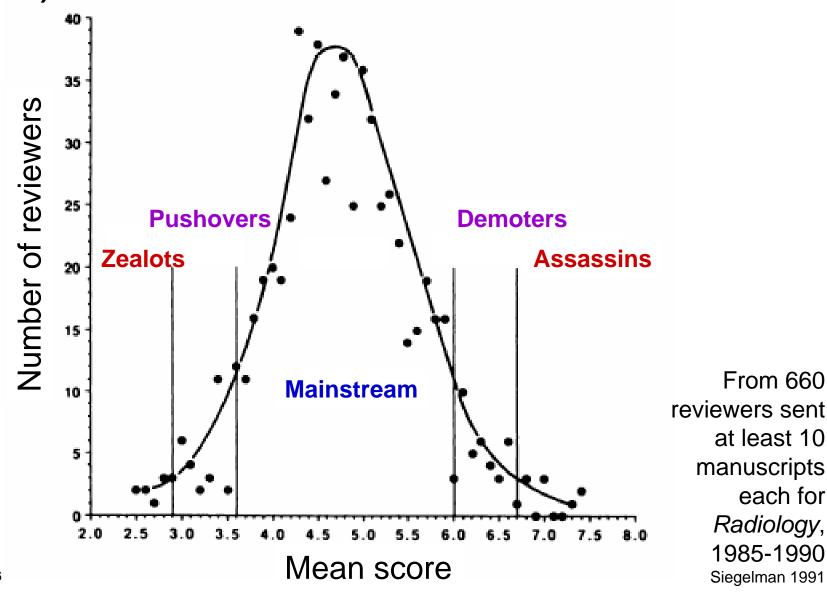
- Benos et al. 2003

...and bad quality reviews are not.

There is nothing more discouraging... than to receive a sarcastic, destructive review.

- Benos et al. 2003

Some reviewers are unusually nice (or not)



each for Radiology, 1985-1990

From 660

at least 10

manuscripts

Siegelman 1991

Good quality reviews are good for you.

Since the best referees generally receive the best papers and proposals to review, those individuals enjoy the benefits of continual professional enrichment and renewal.

Bad quality reviews are bad for you.

The most serious consequences of bad refereeing is the long-lasting damage to an individual's reputation in the eyes of editors and program managers...

Good quality begets good quality.

Some editors... maintain two lists of referees, say the "A" list of good referees and the "B" list of bad referees...

...when authors from either list submit a paper for review, the editor selects referees... from the list to which the author belongs.

Everyone gets papers rejected.

It is widely recognized that anyone pursuing a career in the arts needs a thick skin to cope with the frequent rejection....Less widely appreciated is that rejection is also a fact of life for scientists.

- Cassey & Blackburn 2003

Why do papers get rejected?

- a) Poor referee/editorial process
- b) Scientific grounds
- c) Insufficient importance
- d) Inappropriate subject matter for the journal

Authors with higher % acceptances picked **b**. Authors with higher % rejections picked **a**.

- Cassey & Blackburn 2003

Why reviewers recommend rejection:

No.	Reason	%
1	Statistics inappropriate, incomplete, etc.	11.2
2	Overinterpretation of results	8.7
3	Inappropriate, suboptimal [methods]	7.3
4	Sample too small or biased	5.6
5	Text difficult to follow or understand	3.9
5	Insufficient or incomplete problem statement	3.9

Why reviewers recommend acceptance:

No.	Reason	%
1	Important, timely, relevant, critical problem	20.2
2	Well-written manuscript	18.3
3	Well-designed study	10.3
4	Thoughtful, focused, up-to-date lit. review	6.7
5	Sample size sufficiently large	4.4
5	Practical, useful implications	4.4
5	Study limitations accounted for	4.4

A negative review is a challenge.

A negative review means the manuscript – either the argument or its presentation – has not convinced an expert in the field.

If the manuscript is unintelligible to the expert reviewer, it will be unintelligible to everyone.

Corollary: If the manuscript can be revised to convince this reviewer, it will convince anyone.

- M. A. Lewis 2006 (paraphrased)

Reviewers' responsibilities

- 1) evaluating the ms honestly, objectively, and critically;
- 2) disclosing/avoiding any real/perceived conflicts of interest;
- 3) not engaging in plagiarism;
- 4) identifying to the editor areas in which you are not expert;
- 5) writing constructive, helpful reviews & not being derogatory;
- 6) reviewing expeditiously;
- 7) maintaining confidentiality;
- 8) reporting any suspected ethical breach to the editor.
- Benos et al. 2004

Giving good reviews/feedback

Get the big picture

For informal reviews -

- 1. Ask what the goals of the project are.
- 2. Ask what scale of feedback is requested: ideas? content? style? proofreading?
- 3. Ask what the author sees as the project's strengths and weaknesses.

For journal reviews -

- 1. Check the journal reviewers' guidelines.
- 2. Make sure you have no conflict of interest and enough time.

Giving good reviews/feedback

Offer your comments

For all reviews -

- 1. Keep it impersonal for the author, and own your comments. Try "I find this..." rather than "This is..." or "You are..."
- 2. Comment on the positive as well as on areas for improvement.
- 3. Sandwich your comments: good + not-so-good + good. This way the author is *much* more likely to hear the feedback.
- 4. Be specific, and explain your comments with examples.
- 5. Distinguish major/conceptual from minor/detailed comments.
- 6. If confused, try summarizing back to the author what you read/heard.
- 7. Provide constructive suggestions, not discouraging comments. Try "I am confused consider reordering these for clarity" rather than "This is confusing."
- 8. Be aware of your writing/body language. Convey your comments with courtesy, respect, and sincerity.
- 9. Thank the author/editor for the opportunity to review.

Making the most of feedback

Provide the big picture

For informal reviews -

- 1. Explain the goals of the project for which you are requesting feedback.
- 2. Identify the scale of feedback you are asking for: ideas? content? style? proofreading?

For journal reviews -

1. Make sure you are submitting to an appropriate section of an appropriate journal, and have followed all the guidelines.

Making the most of feedback

Encourage all feedback (discard later)

For informal reviews -

- 1. Answer any questions, but wait before responding to the feedback.
- 2. If the feedback is unclear, ask for clarification or examples.
- 3. Do not defend the project or reject the suggestions yet (save this for the privacy of your office).
- 4. Summarize the major and repeated comments.
- 5. Be aware of your body language; try to convey openness to feedback.

Making the most of feedback

Encourage all feedback (discard later)

For all reviews -

- 1. Assume the reviewers are being courteous, respectful, and sincere.
- 2. Remember that *anything* can be improved. The feedback is about the project, not you, so try not to personalize it.
- 3. Look/listen for positive comments as well as suggestions for improving.
- 4. Try to distinguish major/conceptual comments from minor/detailed ones.
- 5. Pay attention to repeated comments: there might be something to them.
- 6. Thank the reviewers/editor for the feedback.
- 7. Wait before dismissing comments out of hand. Comments that initially appear stupid may come to have merit.
- 8. Quietly salvage ego with chocolate/beer/hugs before tackling changes.

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