



Seven Tips to Get You Through Peer Review

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One of the gates to the Harvard Yard carries the inscription, “Enter to Grow in Wisdom.” The corresponding gate to Success in Academia is inscribed: “Publish or Perish.” Unless you have been fortunate enough to turn your PhD Thesis into a best-selling book, your main pathway to publishing is the peer-reviewed journal. I spent seventeen years as co-editor of two different journals, and over the years, I developed the following guidelines for navigating the shoals of the review process:

1. (Almost) Nothing is New.

When I would supervise a graduate student, I would tell her to “figure out what you have done, then go to the library and find it.” What I meant, of course, is that all research is built on the work of others, and that a contributor is obligated to identify and discuss the relevant previous literature.

> Cite the relevant literature in your introduction, and, most important, return at the end of your manuscript to relate your work to what has gone before. Failure to close this loop ranks near the top of the list of author sins.

> If you have written a related but not-yet-published journal or conference paper, submit a copy to the journal editor along with your manuscript. Failure to do so can, if the editor discovers the omission, produce an automatic rejection of your paper.

2. The Believability Index.

Inexperienced authors often have difficulty outlining their papers. I recommend using the “Believability Index.” Some things, like Newton’s Laws of Motion, are well established. Other things, like your speculative interpretation of your data, might produce disagreements in readers. You should assign a degree of “Believability” to each component of your paper: the background, the research methods, data reduction, experimental results, theoretical models and interpretations. Then, write the paper in the order of decreasing Believability. The reviewer will naturally agree with you up to the first thing which he or she might question, but if all of your higher-believability material is already presented, the point of disagreement can be crisply identified. This greatly smooths the review process.

3. No Gambling Words.

If you find yourself trying to emphasize the “likelihood” that a certain result should be interpreted a certain way, a bell should off in your head. You are gambling. Words like “certainly,” “probably,” and “undoubtedly” have no place in proper reports of research. Either you know, or you are speculating. Gambling words do not improve the strength of your argument. Quite the opposite. They make astute reviewers suspicious.

4. Don’t be a Longfellow.

While Longfellow was free to tell one fireside story after another at the Wayside Inn, you are not so entitled. Some authors like to present a result, then tell a story, present another result, another story, and so on. This is bad writing because it puts low believability material (the first story) ahead of what should be a higher believability item, the second result. Reviewers have a difficult time collating multiple stories when they are mixed in with results.

5. No Rabbits from Hats.

Some authors like to present most of their results, give their interpretative story, and, to reinforce the presumed correctness of the interpretation, present one final result, not previously anticipated, that is supposed to clinch the story. Such surprises might make for good theater, but it wastes the reviewer's time in trying to digest the interpretation without the benefit of all the relevant results. Respect the reviewer's time. Make your case efficiently, without theatrics.

6. Mine All the Gold.

Imagine that you are a prospector. You find a few nuggets of gold, rush to file your claim, and then abandon it. Of course, you wouldn't do that. You'd return to mine the gold. But you would be surprised at how many authors fail to dig all of the information out of hard-won data, being content to present a few nuggets and move on. It is unlikely that a reviewer will criticize a paper that doesn't extract all of the information available in a set of results, but demonstrating a willingness to dig deeply makes a reviewer very happy. As long as you follow the Believability Index, you can speculate about what some twinkle in the data might mean toward the end of your paper. If you go too far overboard, the reviewer may reel you in, but it's worth trying.

7. Reviewers are Inarticulate and Authors are (Somewhat) Paranoid.

Reviewers are volunteers. Their time is precious. They don't always read papers with the care one would hope for, and sometimes their comments are inarticulate. But, in my experience and in spite of the paranoia of some authors, they are rarely out to get you. If they criticize a paper, they have a reason. The reason might be based on a misunderstanding of the subject matter, but for the reviewer, it is still a reason.

Ego is the enemy here. Too often, I have seen authors respond by railing against the ignorance of a reviewer instead of devoting that same amount of energy to (a) figuring out why the reviewer might, in good faith, have objected, and (b) finding an efficient way to fix it up, possibly by changing something earlier in the paper, or re-ordering material to bring the Believability Index into proper alignment. If you do a good job of responding to those criticisms for which you can understand the basis, you are more likely to get a pass from the editor for disagreeing with those that are clearly wrong.

Conclusion.

Writing good papers is a learnable skill, and following the Believability Index can be a useful guide to helping you develop that skill. I have written a more detailed account of these ideas in a paper entitled, "How to Avoid the Reviewer's Axe." It is available at www.stephendsenturia.com/articles. And I would love to hear your stories about peer review. Send me a note at www.stephendsenturia.com/contact.html.

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