



The Explorer Scientist (and Objection Obliterator)

Conventional wisdom

There's conventional wisdom and there's the better way.

Conventional wisdom holds that a grant proposal is like a paper. It holds that you have to pack in every little detail about your work - the exact experimental conditions, the test tube supplier, the software versions, the nitty-gritty details of the theories.

Yet, if conventional wisdom was working so well, then why are many senior scientists struggling to get funding?

Admittedly it's a broken system. But working within a broken system by applying "conventional wisdom" is doing exactly what Albert Einstein refers to when he said "you cannot solve problems with the same level of consciousness that created them."

The objection obliterator is about taking one key step away from conventional wisdom, and towards something much better... a method that will reduce your chances of rejection and increase your chances of funding... so that you can spend more time doing your research and less time on the broken-grant-treadmill.

The Objection Obliterator

The core question I get time and time again from people like you seeking grant writing advice is this: "How much detail should I include in my proposal?" I often say "not too much" - because the clearest, easiest to read proposals have the best chance of funding. Yet there's a balance - you do need some details to describe the work and show you can do it. Which ones to include?

The answer to that question comes from an oblique angle. We have to start by understanding that *reviewers read your proposal with skepticism*. **They start off from the first moment of contact with your proposal, looking for objections.** The details you include in your proposal **MUST** handle these objections. If you do not, your reviewer is left with an open question, and that's THE END.

Take your own experience with purchasing an expensive item, such as a refrigerator. Before you spend your hard earned cash, you want details to assure you things such as: the fridge is going to work properly and for a long time, is made by a reputable company so you can get service if you need it, is going to look nice in your kitchen, is going to be delivered by the store, etc. If you don't get an answer to one of these details, well then you just might walk out the door looking for your fridge elsewhere.

Hence, we have an answer for "which details do I include?"

The only details you include in your proposal should be those that address likely reviewer objections.

Now, I've been working on a master list of objections raised by different types of reviewers under different reviewing conditions.

Here, I share with you five universal core objections, aka "the biggies." If you don't handle these, your proposal will go down in flames.

The Five Key Objections, and how to Obliterate Them

1. Do you have the right experience as a Principal Investigator / Project Leader?

Reviewers have questions about your experience. Have you managed a project and team successfully before? Have you translated funding into a successful project? Is this project within the scope of your previous experience so that it is likely to be successful?

To Obliterate this: Make your previous experience and successes obvious right up front. Don't make your reviewer hunt for it in the Biosketches! Add some of your published references in the Aims section, or point to previous (relevant) work.

2. Is the hypothesis or question being proposed properly supported?

Reviewers want to see how this hypothesis or question came about and how it is relevant to the community.

To Obliterate this: Don't just throw your hypothesis out in the first sentence or two. Build up to it by establishing the big picture first and then the gap that is currently unfulfilled. Then build evidence for your hypothesis, *in advance of presenting the hypothesis itself*. Realize that a core principle of objection obliteration is that the best objection handling is *always done in advance of when the reader raises the objection*. The longer you go on without handling a core objection, the more likely it is that you'll never recover from it.

So, handle all potential objections to your hypothesis before ever mentioning what that hypothesis is.

3. Do the Specific Aims / Project Summary answer the core hypothesis or question being asked?

Reviewers want to clearly see how the work you are proposing is going to answer the hypothesis or question you've raised. Surprisingly, many people write grant proposals where the relationship between the aims or objectives don't have an obvious connection to the central question or hypothesis. Sometimes this is just a writing problem, and sometimes it is a thinking problem (and often it is both). However, you *must* make sure they relate in an obvious way.

To Obliterate this: Directly address your question or hypothesis in your Aims. Not just the details of your work, but the Big Picture question you are addressing. Go over your writing to make sure it is very clear on this. Have colleagues read it with this specific question in mind.

4. Is the money being asked for going to make substantial forward progress in the field

Reviewers want to know that the work being proposed is going to move the field forward, not just incrementally, but in a substantial way. You want your reviewer to get excited about the possibility of the work, and the best way to do this is make sure they can see how it will be of substantial benefit. This doesn't mean you have to claim that you are going to make a huge lead forward - sometimes a small step in the right direction can be substantial. But you must paint the picture of what that step is, and of how it plays into the big picture.

To Obliterate this: Use your writing to directly address this question. Use preliminary data to show you have the ability to do the work, but don't do the whole project first. You must show a clear funding need to advance the work beyond, and that advancing the work beyond will be a substantial improvement in the state of your field.

5. Is the community interested in the work you are proposing?

This is critical. Reviewers want to see that this is work that the whole community is interested in, and it's not just a "pet project" or side research. If your reviewers can't see what's in it for the community, you are sunk. Gone are the days when we can just come up with random "good ideas" and get them funded. They have to be relevant and timely.

To Obliterate this: Before you start writing your grant, you need to know what your community is interested in. At the meetings you attend, listen carefully and take notes. What are the gaps that need filling? What are the stumbling blocks to forward progress? Get specific. Then, when writing your grant, show through clear writing how your project will address one of these key stumbling blocks. You can also show interest from the community through the letters of support from your colleagues.

Exercise

Here's an exercise to help you think through this.

Step 1: If you've had a past rejection, go back and review it in light of these objections. Identify the #1 and #2 objections the reviewers had to your grant. Was it lack of experience or authority? an unclear or poorly connect hypothesis? a lack of general community interest / excitement?

Hint: you probably need to "read between the lines" a bit here, because reviewers will often pick on small details when their main objection lies elsewhere.

If you have not had a past rejection, then identify what you think might be the the key objections to your next proposal.

Step 2: Identify what specific details you could include to handle these objections? And even more importantly, what details could you leave out?

Step 3: Leave a comment below the video sharing your experiences with others. Has an objection sunk your proposal in the past? Were you able to identify an objection you hadn't previously seen?

and/or

Leave a comment on your experiences with mentoring (or lack thereof).

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