

Peer Review

Review of: "Publishing Test-Ready Hypotheses When Experiments Are Out of Reach"

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This manuscript aims to tackle a major problem in our current scientific system, namely the fact that we currently do a pretty poor job of conducting cumulative science in an efficient way. The proposed model of publishing test-ready hypotheses has the potential to, at least in part, overcome this problem. In outlining the model, the author takes into account the major relevant aspects at hand. I have a couple of suggestions that might be of value to the relevance and scope of the paper.

As one of the other reviewers mentioned, this idea is not new. In fact, there are several infrastructures for micropublications out there already. These should be referred to.

I think a clear rationale for only including 'test-ready hypotheses' is lacking. The idea behind it seems to be that these are needed for cumulative science. Researchers in fields/disciplines, e.g., historians or social scientists, would argue that science can be cumulative without having testable (quantitative) hypotheses. I think the manuscript would either benefit from opening up this criterion or from a discussion on what this means for the scope of disciplinary fields to which the proposed model applies (and what that means for disciplines or fields outside this scope).

The manuscript outlines specific criteria for what should be publishable without data. After reading these, I wondered whether these criteria (if you agree with them) should not apply to all research we do, so not confined to the 'research ideas' discussed in this manuscript. After all, does not all research start with research ideas? I think it would be good to stress in the manuscript that it discusses a special case (or subcase) of the more generic full research cycle here.

Although the author discusses how his idea could benefit researchers from low-resourced settings, e.g., what journals could do, I think this deserves more attention. The fact that original **research** is recognized and rewarded much more than original **ideas** is a major challenge in implementing the proposed model, which will be difficult to overcome quickly. This will not be overcome by implementing a couple of measures at journals alone, but requires changes at funding agencies, research-performing institutions, and researchers themselves. Without overcoming this challenge, researchers from underresourced labs/organizations will not be eager to share their ideas (without getting credit).

What I miss in the manuscript is a more detailed description of how the model could lead to collaboration between the researchers/labs who outline the idea and the labs with the resources to execute the idea. Clearly, the execution would benefit from collaboration or at least communication between the idea developers and the executors. This opportunity for collaboration might also form an incentive to publish the idea (see my previous comment). How could such a collaboration look like? Could this mean the idea developers could also be advisers on the execution of the study, and could they then be credited for that?

Declarations

Potential competing interests: No potential competing interests to declare.