Reviewer’s report

Title: Uptake and outcome of manuscripts in Nature journals by review model and author characteristics

Version: 0 Date: 23 Feb 2018

Reviewer: Mario Malicki

Reviewer's report:

Dear Authors,

Thank you for the opportunity to review this manuscript. I enjoyed reading it, and I would like to offer my suggestions for its improvement.

Overall comments:

1. Of the manuscripts that were forwarded, please list the direction and percentages of forwarding according to your 3 categories of journals.

2. I would recommend the authors refrain from using the term corresponding authors, but rather use submitting authors or a similar term.

3. Does the system have information on corresponding authors - it would be interesting to check your observations in light of corresponding author or first author characteristics. With such a huge discrepancy in the number of male and female authors, I would advise checking gender for all authors of the manuscripts in your dataset, not just the submitting ones. Additionally, how many of the submitting authors have already had a paper published in one of the Nature journals? This, as well as study funding characteristics are also possible confounding variables.

4. With so many possible confounding variables, I fear without conducting regression analyses, you cannot draw your current conclusions, and so until this is done I refrain from looking at the discussion section in detail. With the large sample, as the one you do have, I do not see why you felt in the discussion you could not conduct multivariate analysis.

5. You state you are inclined to think that the Nature journals editors are not biased based due to gender and OTR rate, but do not mention here the possible bias toward country or
institution prestige? Nevertheless, this point should be revisited only after regression analyses are conducted.

Details per section:

Background:
Lines 65-67 - Would rephrase this paragraph and use a past tense.
Lines 106-107 are results, should be removed from this section.

Methods
I do not see the need to exclude the journals rejected by one journal and then transferred to another for the uptake analysis - If you have the data on which journal they first submitted to and what was their choice during that submission - there is no need to exclude them for this part of the analysis.

As you introduced the option in 2015, it would be good to see the differences in uptake per year 2015/2016/2017.

Lines 225-226, 248-249, 268-270, 297-299, 325-27, 344-345, 389-390, 410-414 should be moved to discussion, they don't belong to results. Possible interpretations should not be in results.

Additionally, your sample includes manuscripts that have the same submitting authors - can you please calculate how often do the same authors ask for different peer review type?

Finally, as the 3 categories of journals, country, and tier of institutions, as well as possibly year of submission and number of authors (do you have this data?) could influence the uptake - you need to conduct a regression analysis to see which of these factors are independent predictors of the uptake.

The same applies for the final decision, and sending for review - all require regression analysis.

In table 13, please do include category 4 institutions, you can then analyse only the 3, but do provide the analysis for four categories as well. The same should be done for gender that you could not determine.
In hopes may comments can help you improve your manuscript,

Kind regards,

Mario Malicki

**Level of interest**

Please indicate how interesting you found the manuscript:

An article whose findings are important to those with closely related research interests

**Quality of written English**

Please indicate the quality of language in the manuscript:

Acceptable

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