

# Peer Review Comments

**Article:** Vazire, S. (2017). Quality Uncertainty Erodes Trust in Science. *Collabra: Psychology*, 3(1): 1, DOI: <https://doi.org/10.1525/collabra.74>

**Article type:** Perspective/Opinion

**Editor:** Rolf Zwaan

**Article submitted:** 26 October 2016

**Editor decision:** Accept submission

**Article accepted:** 18 November 2016

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## Ported Reviews

Decision letter from Psychological Science:

Hi, Simine. Three psychologists with expertise/engagement in promoting transparency in science agreed to review your manuscript, but one of those was unable to complete the review in a timely way and I have decided to make a decision drawing on the two reviews in hand. Both reviewers signed: Reviewer 1 is Jelte Wicherts, and Reviewer 2 is Andrew Przybylski. I thank both reviewers for their thoughtful assessment.

Your paper is extremely well written, and I am completely on board with your argument. But I have come to the conclusion that the paper is not well-suited for Psychological Science. I agree with Jelte Wicherts that Perspectives is a much better fit, in part because they will give you space to elaborate and ground the paper more extensively (and Jelte suggested a bunch of clever ideas in that regard).

I regret that the outcome was not positive, but we have to be extraordinarily selective due to the large number of manuscripts that are submitted to the journal (roughly 2,000 new submissions are expected this year). If it would be helpful, I would be happy to send Bob Sternberg a note promoting your paper, because I do think it warrants publication and that Perspectives would be a great outlet for it.

Yours sincerely,

Steve

D. Stephen Lindsay

Editor, Psychological Science

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## REVIEWER(S)' COMMENTS:

Reviewer: 1

Comments to the Author

Review of Quality Uncertainty Erodes Trust in Science by Jelte Wicherts (signed)

In this well written manuscript the author offers an interesting analogy between quality of scientific articles and second hand car sales in an effort to strengthen the case for transparency in science. I generally liked the analogy and wholeheartedly agree with the commentary's main goal of promoting transparency, but I have some doubts on whether it is appropriate for Psychological Science. Because the commentary article is restricted to 1000 words, the analysis of problems with lack of trans-

parency is necessarily short and leaves many issues undiscussed. For instance, it does not discuss empirical evidence amassed over the last decade showing that errors in articles are pervasive and associated with the failure to share data for reanalysis (Wicherts et al., 2011 PLOS ONE), that sharing data also increases citation scores (Piwowar et al., 2007 PLOS ONE), and that simple incentives like badges can increase the willingness to share (Kidwell et al., 2016 PLOS BIOLOGY). Also, if we take the economic analysis a bit further, other relevant aspects of the game of psychological science become apparent. For instance, if one is interested in selling a lot of shoddy cars (i.e., publishing a lot of irreproducible papers), one should ensure that one obtains a lot of cars. In a science focused on significant results, this boils down to running as many small studies as possible (instead of larger ones; see Bakker et al., 2012, Perspectives) and using the file drawer by discarding the ones that don't work (let's say that cars that fail to start are run down a cliff). Also, one can use duck tape and cheap paintbrush (p-hacking) to make shoddy cars (studies) appear pretty decent (significant). In addition, there are the journals (perhaps franchise holders in the car analogy) that play a major role in the economy of science. Journal's actions can be problematic, for instance when a journal (franchise holder) stresses quick revenue by only focusing on the Impact Factor (citations, or car/subscription sales) instead of caring about long term considerations (trustworthy science/reliable cars). Yet other journals, like Psychological Science did, can take an active positive role and award rigor by handing out badges for open data, open materials, and pre-registrations, and requiring well powered studies (or less focus on significance). Because there is so much more to be written here (even with this given analogy), the strict word limit appears to limit the argument. More journal space, for instance at Perspectives on Psychological Science, would strengthen the message and would also allow the author to refer to the wider literature on the benefits of transparency.

Reviewer: 2

Comments to the Author

Overall I really liked this comment, I think it could be better with revisions in line with a few minor comments I have.

points:

In defining the 'buyers' the author is correct to include readers in the process. As an early career researcher who bought much of what was published as literally true because of the journal stamp, I struggled to replicate many findings in my own subfield. You pick this thread back up p 3 lines 50-52 but this point gets a little lost bringing up another important point (driving other work out of market).

Page 2, lines 46-48, 'intentions' should be clarified, perhaps author means something akin to research goals or plan, but intentions puts me in the space of mind-reading.

Page 4, lines 31-33, not sure if the information is kept private, it's just kept in some kind of proprietary zone. this puts the burden on the buyer to know what are the right questions to ask, which is hard because the authors are more of an expert on the area and data.

Page 3-4. I think the argument is missing a step or clause regarding crowding other work out the market and I think this can be tied back to the market/car analogy. The 'result' that the author talks about is getting the paper/work published, closing the deal in the used auto analogy. You need to say that transparent science is more time intensive before you make a conclusion that shoddy science can out sell it.

I think it might be good to note that Carfax has upsides besides preventing the collapse of the secondary car sales market. People are going to have to invest transparent science. Has carfax been good for dealers?

It would make sense to reference the Peer Reviewer Openness initiative here. This is kind of like the N-point inspection used as part of quality assurance in car sales. <http://rsos.royalsocietypublishing.org/content/3/1/150547>

signed,

Andrew K. Przybylski.

Response to decision letter and reviews from Psychological Science:

Response to Editor's comments: I have now expanded the manuscript (from 1,000 words to 2,393 words) and grounded it more extensively in the literature (from 10 references to 24).

Response to Reviewer 1: I have incorporated all of the points raised by the reviewer, and all of the references he suggested (and others). I have attempted to do this while keeping the manuscript streamlined and punchy. I believe these changes have improved the paper, but I am also wary of adding too many points or stretching the used car market metaphor too far. I would be open to cutting any redundancies these revisions may have introduced, or any parts where the analogy to the used car market may be too much of a stretch.

Response to Reviewer 2: I have taken most of Reviewer 2's suggestions on board. There were a few small ones that I disagreed with (e.g., I continue to think "private" is the right word for what I am describing, page 2). I believe these changes have improved the manuscript.

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## Editor Decision

**Editor:** Rolf Zwaan

**Affiliation:** Erasmus University, Netherlands

**Editor decision:** Accept submission

**Decision date:** 18 November 2016

Dear Dr. Vazire, Simine,

I am ready to make a decision regarding your submission "Quality uncertainty erodes trust in science." This is a new type of submission, both for me and for Collabra: Psychology, in two respects. It is an opinion piece and is undergoing a streamlined review.

I have seen the reviews of your initial submission (to Psychological Science), as well as the action letter for the previous journal. In addition, I have read your cover letter for the revised manuscript and the manuscript itself. Based on my reading of this set of documents, I am happy to inform you that I have decided to accept your manuscript. I saw no reason to send it out for review again.

I find myself resonating with the (positive) comments made by the previous editor, Steve Lindsay, as well as with those of the reviewers. The manuscript addresses an important question and is well written. You did a good job taking on board the reviewers' suggestions. I agree with your concerns about losing punch by making the paper too long and about overextending the used car market metaphor and so am glad you didn't go overboard in addressing the reviewers' concerns in these regards.

As there are no further reviewer revisions to make, you do not have to complete any tasks at this point. The accepted submission will now undergo final copyediting. You will be contacted once this is complete to answer any queries that may have arisen during copyediting and to allow a final chance to edit the files prior to typesetting. If you wish to view your submission during this time, you can log in via the journal website.

Kind regards,

Rolf Zwaan

Erasmus University, Netherlands