



Referee Accreditation Trial Review Survey

Researchers and Audience

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Key Findings

General sentiments regarding peer review

- When asked what motivates individuals who had undertaken peer review for a Nature journal over the last year to do so, **87% of respondents perceived refereeing as a inherent part of being a researcher** necessary to ensuring the quality of published work within their field.
- 82% agreed to some extent that traditional peer review (single blind) is effective in maintaining the high quality of academic content however, over half of respondents also indicated that the process of review could be more transparent and expected publishers to do more.
- Over 70% of respondents agreed that they did not expect acknowledgement for their reviews nor did they think it would encourage them to do more.
- Roughly half of the respondents indicated that they thought rewards for peer review would compromise the review process.

Referee accreditation

- Only 6 % of respondents had previously sought accreditation for a review predominantly via Publons.
- Whilst 78% felt that accrediting the reviewers would result in positive changes in tact reports are compiled, nearly a third felt that it would have a negative impact on the honesty of referees.
- Approximately a fifth of respondents had received accreditation for their reviews at a Nature journal, of which, **80% indicated that they would accept accreditation again.**
- Interestingly, 52% of those who have not bee accredited by a Nature journal indicated that they would consider accreditation if given the option (including 59% of those who rejected the offer to participate in the trial).
- Importantly for the trial, **83% of respondents would consider allowing accreditation if they were the author of a paper.**

Considerations – whilst support for referee accreditation was relatively high, consideration must be given to the fact that the cohort of respondents are extremely westernised and predominantly high in seniority (see [appendix](#)). Additionally, it focusses only on what Nature reviewers consider of the trial, not the opinion of the journal authors and readers.

Introduction and Methods

Introduction

Since March 2016, Nature has been trialling (among other things) a referee accreditation initiative to support with the growing desire for transparency in publishing operations (see [here](#)). In recognition of the time and expertise provided to *Nature's* editorial process, when the peer review process is closed and the manuscript has been accepted, referees are asked for consent (along with author agreement) to have their name published alongside the published manuscript as formal accreditation from *Nature* for contributing to the peer review procedure.

While the uptake is good with over 50% of those asked accepting the offer, there is a desire from *Nature* Editorial to investigate the customer perspective of this trial from those who have accepted the trial, not accepted and more widely from the general *Nature* authorship who may have not heard of the trial. More specifically the survey aimed to understand:

- Perspectives on peer review in general
- What influences researchers to undertake peer review?
- Beliefs as to recognition for peer review
- Whether participants in the Referee Accreditation Trial would continue their support of the initiative?
- Are there any potential objections to referee accreditation in the format trialled by *Nature*?

Method

In order to determine the perceptions of reviewers as to the appropriateness of referee accreditation after acceptance of a manuscript, an online survey was designed and hosted on our registered software, Qualtrics.

The survey was live from 6th October 2017 until 26th October 2017.

The survey was sent to 7,377 referees who had reviewed a manuscript for *Nature* between March 2016 and July 2017. Of the 1,324 who clicked through to start the survey, 1,230 completed. This equates to around a 17% completion rate.

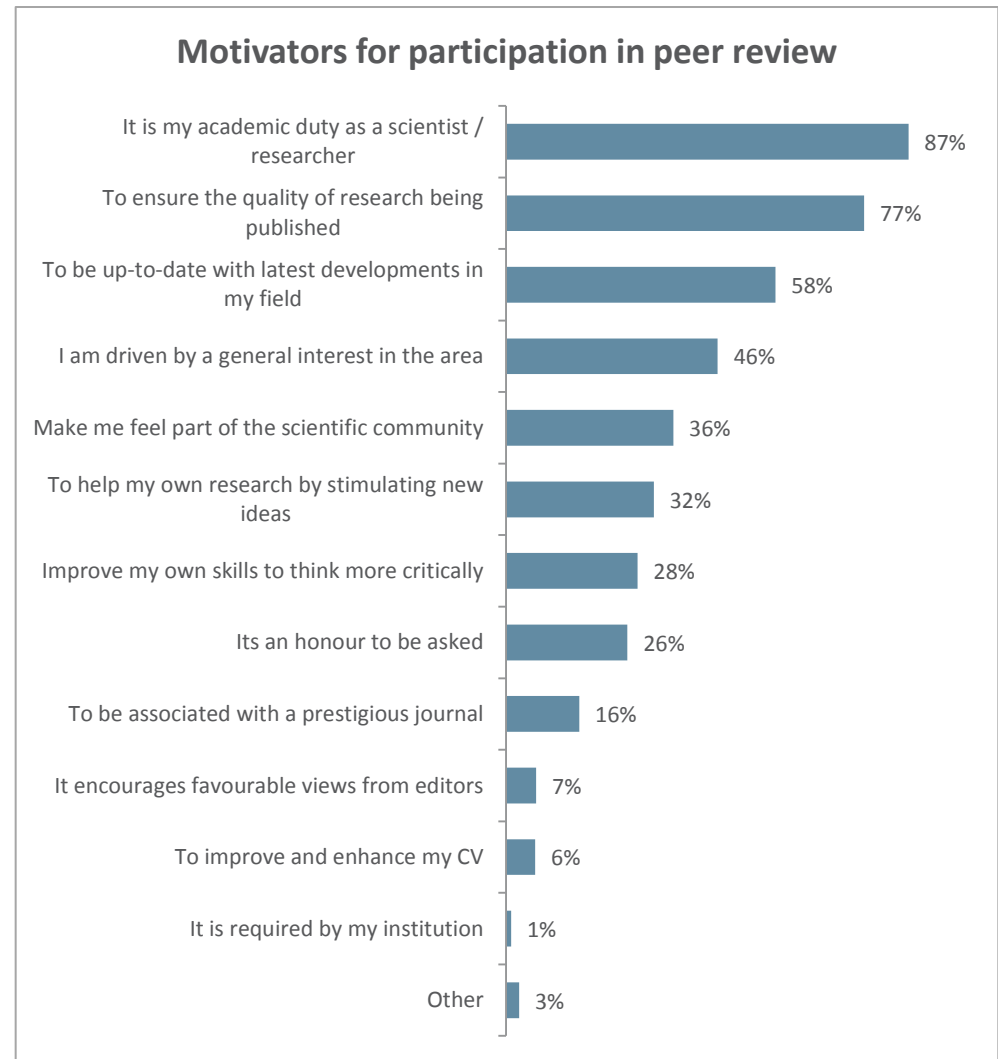
Unless otherwise stated, 1,230 is the base size for graphs through the slides.

Perceptions of peer review

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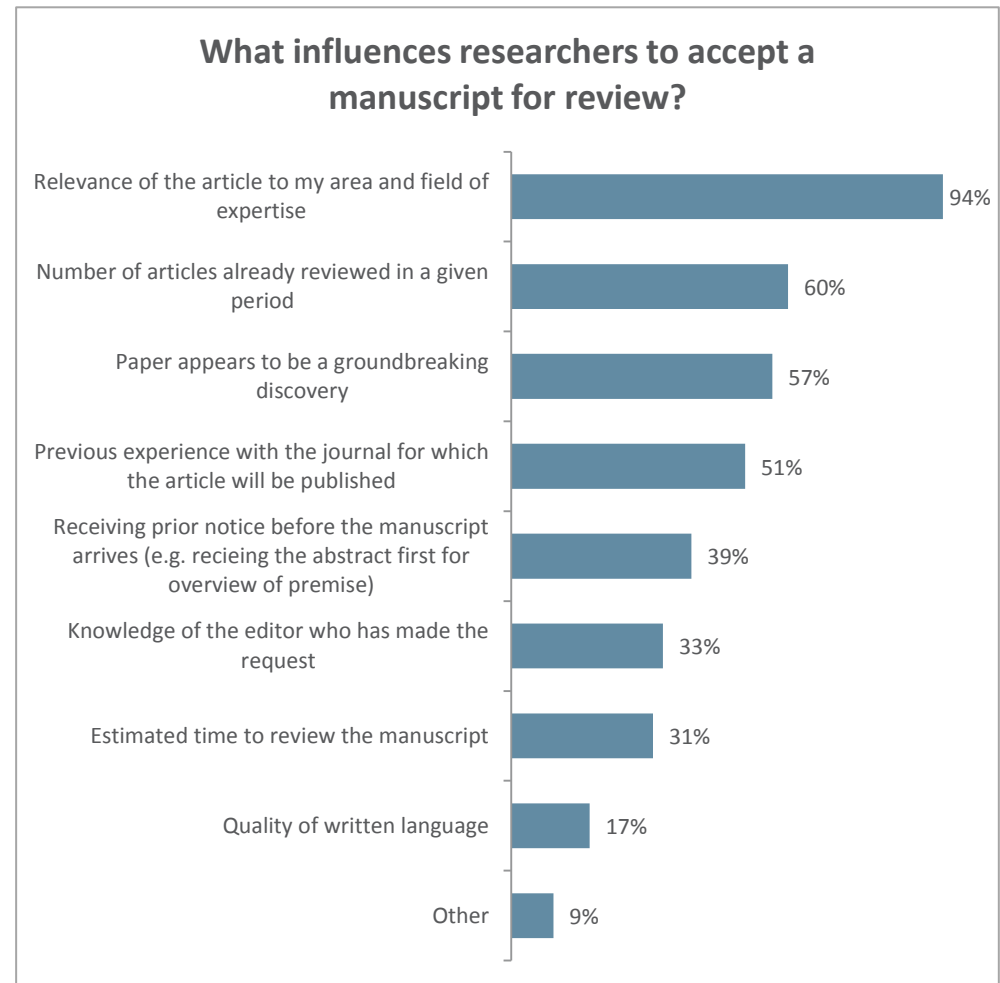
Peer review perceived as an academic duty

- To get an understanding of what drives researchers to participate in peer review, a list of motivators was designed and respondents were asked to select those that they felt typified their reasons for contribution.
- Participation in peer review is clearly seen by researchers as an altruistic activity that is for the greater good of science. The two most selected motivators for involvement were that it was seen as an academic duty (87%) and to ensure the quality of research being published (77%).
- Altruistic sentiment appeared to be a greater motivator for those who were frequent referees (defined as those who identified that they had reviewed 7 or more manuscripts in the past year). Roughly 7-8% more of this group selected academic duty and ensuring quality as their key motivators in comparison to infrequent reviewers.



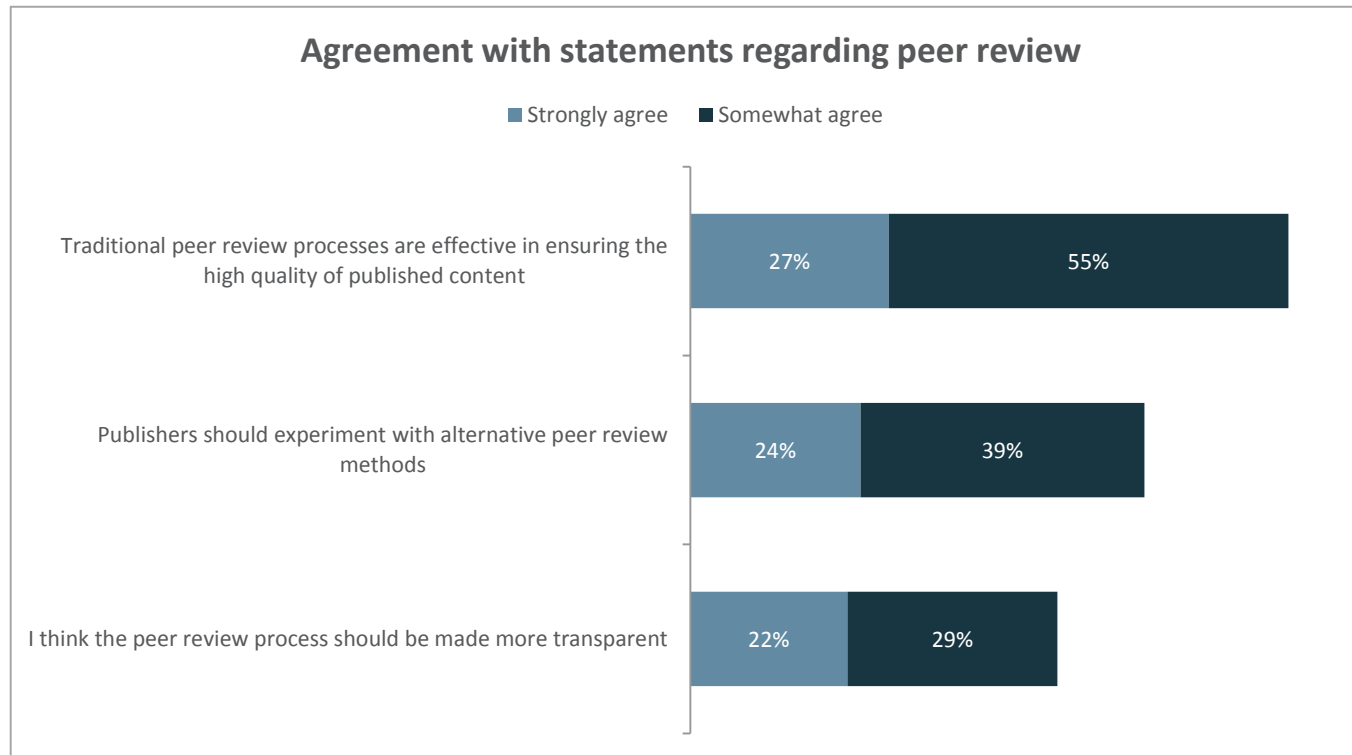
Relevance of an article to the field of the reviewer is key driver for acceptance of a manuscript

- Unsurprisingly, knowledge of the subject area is a key determinant for nearly all (94%) referees when deciding which manuscripts to accept for review.
- Previous experience with a journal and knowledge of the editor were selected by a greater proportion of frequent reviewers (by roughly 20%) as influencers in their decision to review when compared to their infrequently reviewing counterparts. Whether familiarity breeds increased engagement, or, whether more frequent reviewing leads to greater exposure in the field and therefore more frequent requests may be an interesting investigation for another project.
- Either way, the number of articles already reviewed determines a large proportion of whether a researcher will accept a request to review with 52% of infrequent referees, and 68% of frequent referees selecting this as an key influence in their decision process.



General sentiments about peer review

- 82% of respondents agreed that the traditional peer review process is effective in ensuring that published content is high in quality.
- That said, 63% of respondents (a lot of which belonged to the first group) also agreed that publishers should be experimenting with alternative peer review methods indicating that they do not feel the process is entirely fool proof.
- Interestingly in the context of the current survey, just over half of respondents (51%) indicated that they felt to some degree that the peer review process should be more transparent.



Reward and recognition within peer review

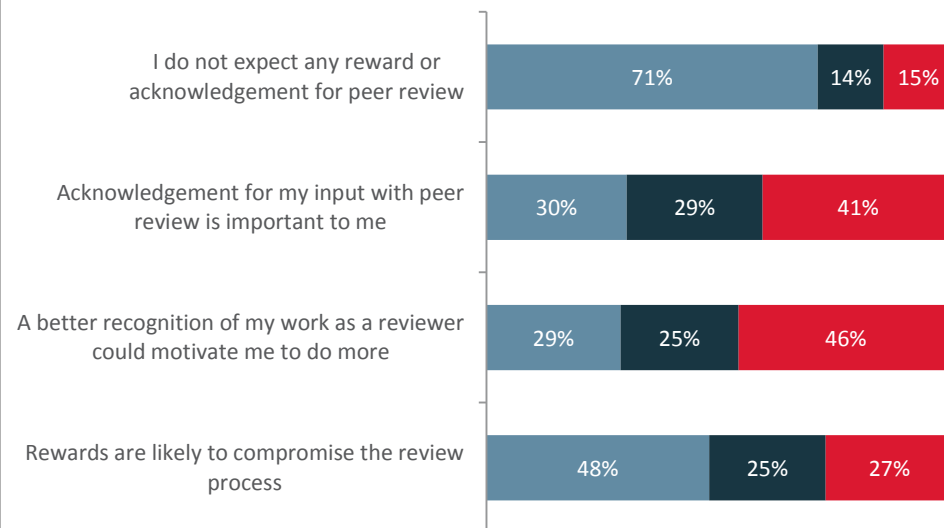
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Recognition for peer review not expected

- 71% of respondents indicated that they did not expect any acknowledgement for peer review further supporting the argument that researchers believe peer review to be an altruistic element of scientific discovery.
- Approximately half of respondents felt that rewards were likely to compromise the review process.
- Interestingly, when asked who they would like to get recognition from for their review activity, the largest proportion indicated publishers and editors

Agreement with statements regarding recognition for peer review

■ Agree ■ Neither agree nor disagree ■ Disagree

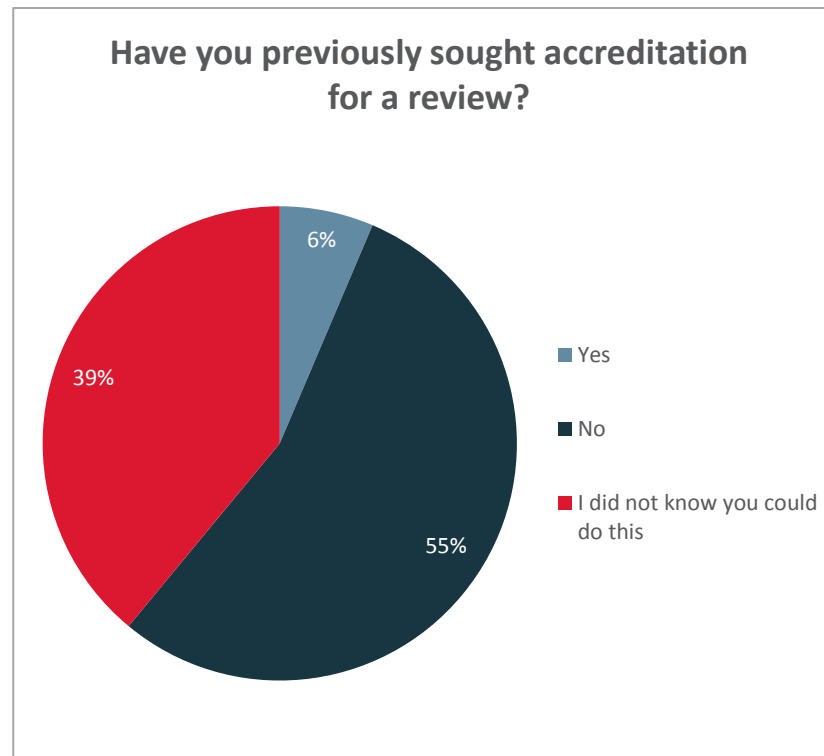


Who is it important to receive recognition from for undertaking peer review?



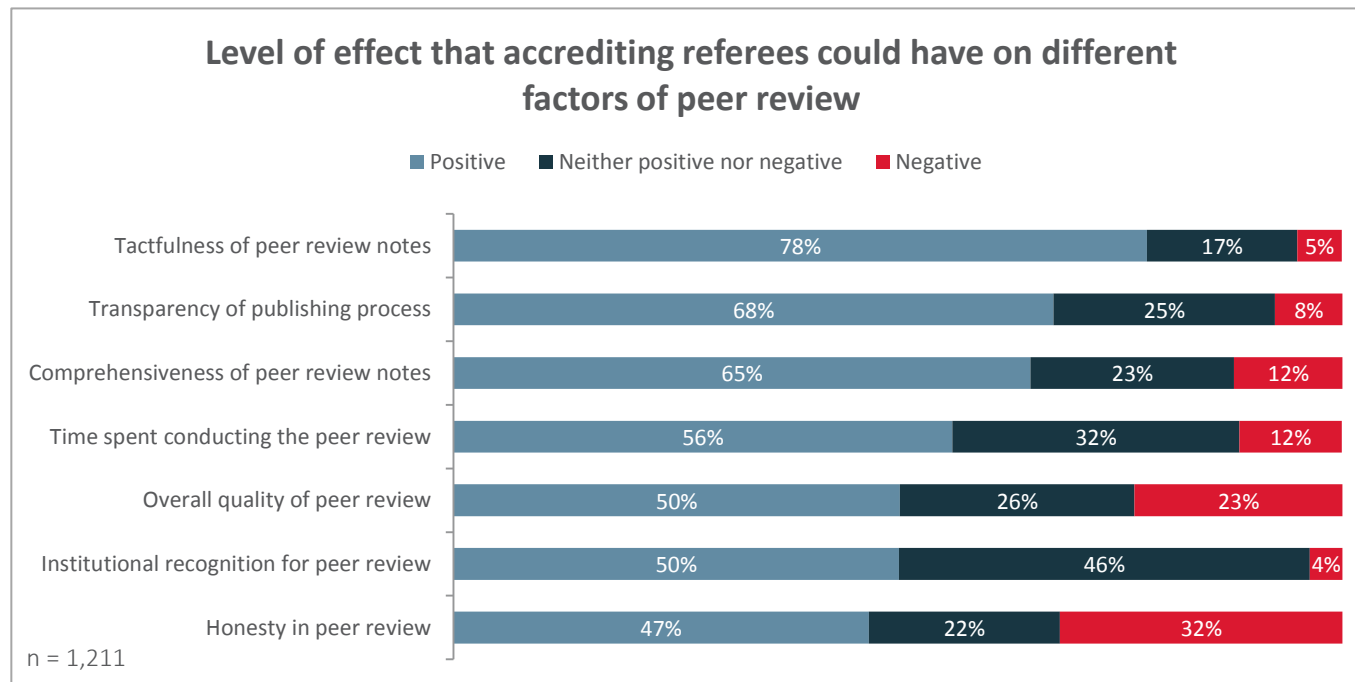
Seeking accreditation for peer review not a common activity currently undertaken by researchers

- Whilst 30% of respondents had previously indicated that acknowledgement for peer review was important to them, only 6% stated that they had sought accreditation for a review in the past.
- Of those that had sought acknowledgement, 52% indicated that they had sought accreditation through Publons.
- Importantly, 39% identified that they were not aware that they were able to seek accreditation for a review.



Referee accreditation perceived to likely improve tactfulness but perhaps not honesty of review

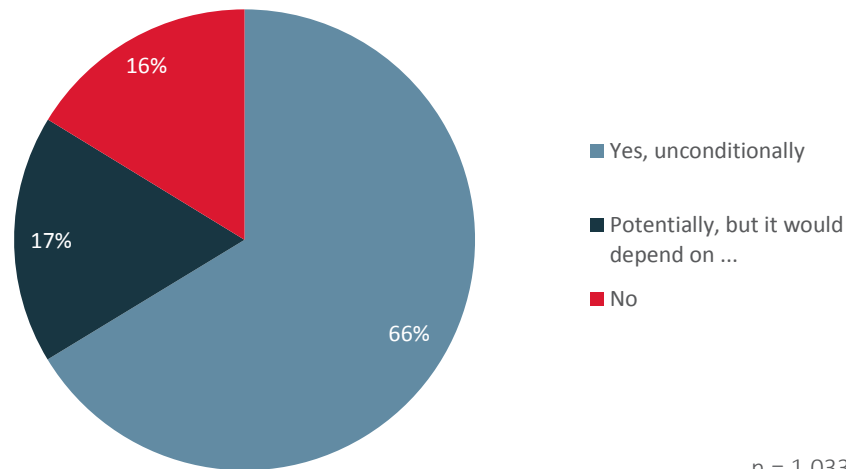
- Over three quarters of respondents indicated that they thought accrediting referees would have a positive effect on the tactfulness of the reviewer notes.
- Similarly, over half of the respondents felt that referee accreditation would improve transparency of the process as well as the comprehensiveness of notes and time spent conducting the peer review (although whether this is the speed at which they conduct the review or the time invested in the review was not distinguished).
- Interestingly, roughly a third of researchers indicated that they felt accreditation of reviewers would negatively impact the honesty of feedback given on manuscripts.



Majority would support referee accreditation as an author

- Researchers are often deemed to have different 'heads' or mind states that they inhabit dependent on their position within the research process (e.g. author, reader, reviewer, publisher). As such it was deemed of interest to determine whether respondents felt the same about referee accreditation as an author as well as reviewer.
- The figure below illustrates that two thirds of respondents indicated that they would give consent to a referee's name appearing on their accepted manuscript unconditionally or irrespective of the judgement or comments of their feedback.
- 16% indicated that they would not permit accreditation of a reviewer for the work they had undertaken on their manuscript.
- The final 17% did not dismiss permitting referee accreditation as an author but indicated there were some stipulations to giving consent which are highlighted below. These generally form around whether the review was constructive, whether the reviewer understood the underlying idea of the paper and fairness of not standing in someone else's way.

As an author, would you give consent for the referees' names to appear on your accepted manuscript?



"They would have to make an intellectual contribution to the paper. My reservation would be that it could detract from the credit my students deserve for actually doing the work."

"I have to think about this - it is my idea/concept/work, they are at some level riding the coat-tails forward. I can see some good in it as a possible validation of the work though."

"Although I disagree with this process - I would not want to stop reviewers from getting recognition if they want this"

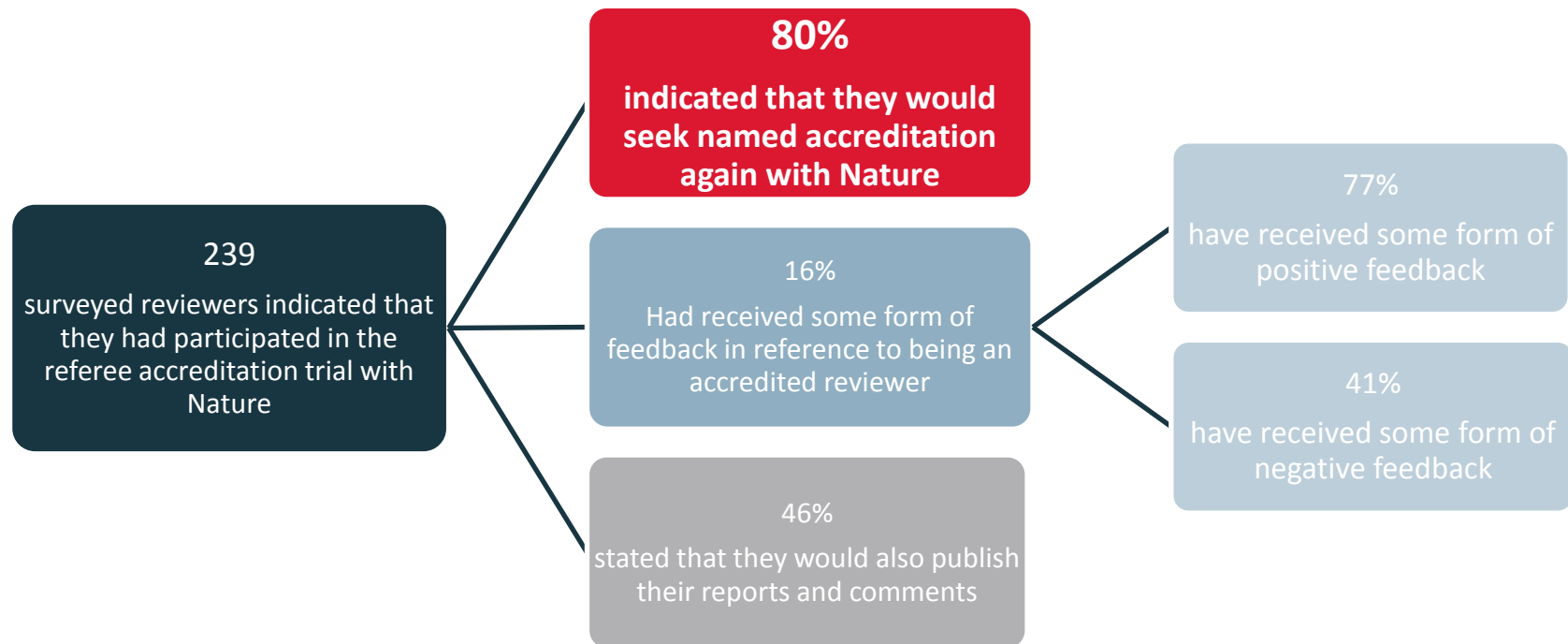
"How well they understood the paper, scope and tenor of comments"

Perceptions of accredited reviewers

3.0

Continued support for accreditation is high

- 19% of surveyed reviewers indicated that they had participated in the referee accreditation trial with Nature.
- Importantly, 80% of those who participated indicated that they would do so again while 10% stated they would not (the other 10% stated they were unsure).
- While continued support for accreditation was high, less than half would support the publishing of their reports and comments.
- Of the 39 respondents who indicated that they had received feedback about being accredited on a Nature paper, over three quarters stated that the a portion of the feedback they had received was positive.



Comments received by referees after accreditation

Positive comments

- The majority (60%) of positive comments centred around the reviewers receiving thanks for their involvement in the peer review process.

"Two of the authors thanked me for my reviewer's comments. I was critically constructive and the manuscript went through several iterations. But it was a better product in the end"

"Another professor commented that they had read the paper I had reviewed in Nature, seen my name listed as a reviewer, and then initiated a discussion about the merits of the paper."

"In general I received a positive feedback. To be acknowledged in a Nature paper as one of the reviewers contributes positively to my scientific image inside my community, and either locally, in my institution, or in my field of expertise, the impression I had is of recognition from my peers."

Negative comments

- The negative comments that respondents received were few but quite varied from criticisms for missed errors, to disparagement for going against the traditional peer review process and included inappropriate offers for reciprocation of positive reviews.

"Was criticized by a colleague for missing a small error in a figure of the manuscript that I reviewed."

"The author of the gave me positive feedback, i.e. he was happy with the. However, he followed this with an explicit offer of favourable review in my future submissions if I suggested them as a reviewer. This offer of reciprocation was extremely unsettling to me and made me reconsider my participation in the trial, because it made me realize the potential for compromising the peer review process."

"I was contacted by a colleague who was sceptical about the paper's conclusions. This spurred me to look into this paper in more depth, and I was concerned by what I found. I am now sceptical of this paper's conclusions. I suppose it is positive in some ways, as I would not otherwise have been contacted by the sceptical colleague and looked in sufficient detail at this paper to realize its flaws. But I worry that my name is now a false advertisement of approval, and am embarrassed at my own failure as a reviewer to take the time needed to dig into the details of the original submission."

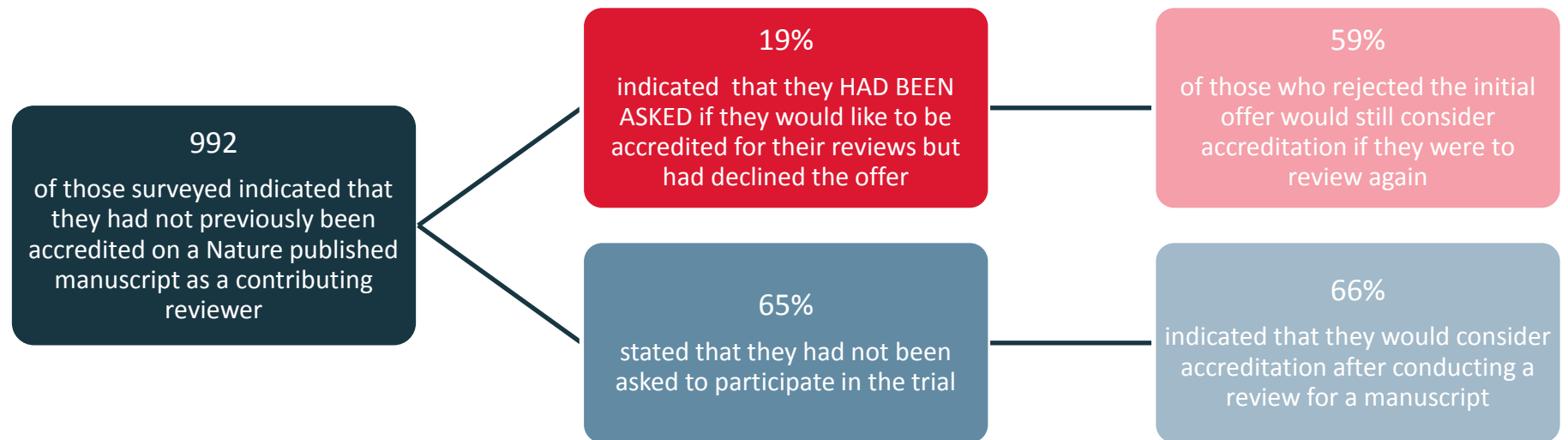
"Unsure it is in line with the widely popular blinded review process. Some of my colleagues have commented on this."

Non-participant perceptions of referee accreditation

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Referee accreditation not dismissed by those who originally rejected offer

- 81% of those who participated in the survey had not been previously accredited as a referee by a Nature journal.
- Over half of this group indicated that they would consider accreditation if asked after acceptance of a manuscript and with permission by the author, including 59% of respondents had been asked to participate in the trial but had originally refused the offer.
- Two-thirds of respondents who were not aware of the accreditation trial previous to the survey, indicated that they would consider being formally accredited as a reviewer of a Nature journal if asked.



Overall, 52% of those surveyed who did not participate in the Referee Accreditation trial would consider accreditation after conducting a review for a Nature journal.

Further Discussion

(Open text analysis)

5.0

Support for referee accreditation

"I think a journal will get much better and more balanced reviews by demanding all reviewers to state their names to the authors. I know anonymity was created to protect the reviewers but the competition is now so severe that it's rather the authors that need to know that criticism is scientific based rather than politically motivated. This can be achieved partly by making the reviewers expose their name. As a reviewer you also don't want to associate your name with a poor quality review. So it will help keeping a high quality."

"To be recognized as an expert researcher in the field."

"Reviewers are part of the process. In most cases they really help to improve the manuscript, they should be accredited for that. Moreover, authors should know who reviewed their articles, it is a matter of transparency."

"I think every reviewer should take the responsibility of what they wrote in the review comments. If such review comments are also published along with their name, it will make the process better. I believe a reviewer should be brave enough to sign his report so for either positive or negative review."

Views in support of referee accreditation centred around:

- Better transparency in publishing
- Increased credit and recognition for the work of reviewers
- Greater accountability for referees and subsequently improved diligence when reviewing
- More open science with increased discussion between readers, authors and reviewers.

"Doing so allows the authors or anyone else to contact that referee with questions or comments."

"To let the authors know that I was honest in my critiques and will stand by them."

"The challenge involves knowledge of the field and objectivity. The lack of transparency allows for reviews coming from individuals without sufficient knowledge/experience, or with scientific biases, and allows for the most concerning problem from my point of view - conflict of interest."

"It is appropriate for the public to know who the reviewers were that participated in the production of an important report. In particular, because reviewers often help to improve the manuscript."

"If I believe the paper is solid, and the review process was fair, there is no reason why I should not feel comfortable putting my name as a reviewer."

Views against referee accreditation

"Without anonymity the peer review process becomes politically motivated and the quality of published research can be severely compromised. I like Nature BECAUSE reviewers are anonymous and are not expected to provide an overall recommendation regarding publication."

"Revealing reviewer identity would hurt vulnerable researchers, especially women, minorities, and junior investigators. Anonymous authorship of manuscript on the other hand helps counter implicit bias."

"Reviewers should not be asked to weigh any potential secondary gain that stems from the decision to review a paper. Doing so creates a potential conflict of interest that can be complicated by, in effect, asking the reviewer to weigh whether they want to be publicly associated with the work and/or potentially culpable for allowing a poor quality or controversial paper to be published. These are all things that the reviewers should be shielded from in order to maximize their objectivity."

Views that counter referee accreditation predominantly focus on a concern that accreditation may lead to bias within the review process. There are two aspects to this:

- unsavoury practices whereby the system is gamed by individuals or groups.
- Softening of tone with reviews to avoid either upsetting another party or from fear of retaliation from disgruntled authors (particularly those in more senior positions).

"Were I to disclose my identity, I would feel pressured to soften my review somewhat to strengthen my relationship with these authors. I have already heard the authors grumble a little about a reviewer (me) being picky, though I think even they would agree that the points raised were important. The reality is that no author wants to see any feedback other than 'publish as is'."

"I am against revealing the identity of reviewers to the authors. I don't believe that it represents meaningful transparency because reviews should be judged on the basis of their merit and scientific validity and not on the basis of who wrote them. Human nature being what it is, and judging from myself, reviewers may hesitate to be fully critical if they know that their identity will be known to the authors. This also involves the risk of creating fertile ground for scratch-my-back-and-I'll-scratch-yours kind of deals. What would be meaningful transparency, is to make publicly available, on-line, the review text, so that the reader may judge how well the published version has responded to the critique. This should be accompanied by an open board (censored only for inappropriate language and copyright) for post-publication peer review."

Views against referee accreditation 2

While in theory I see the appeal of making the review process more transparent, I am not particularly happy with the outcome of having my name revealed following review. I suppose this is mainly because I am embarrassed for not being sufficiently critical of the submitted manuscript. But maybe I am being small-minded here.

Publishing reviewer's names in general is problematic - I think it distracts from the fact that the author - not the reviewer - is responsible for the scientific content and correctness of any paper. Reviewers should also give advice to the Authors and the Editors, they should however not be the ones to decide what is allowed to be in a paper and how a paper should be structured. The latter happens far too often and screws up scientific integrity.

I do not always agree with the end result or all aspects of the work, publishing my name would indicate that I endorse the entire body of work. I feel it is a distraction as well from the authors.

Alternative reasoning for dislike of referee accreditation included:

- Believing that being asked to review was recognition in and of itself
- Fear that having a name published would be seen as endorsement for the paper.
- Fear of reprisal if errors are found within the article post publication

"I believe in anonymous, objective review. Like virtue, it is its own reward."

I worry it will influence some people to review papers in order to get their names attached to them. Also, as a reviewer, it's not possible to check or vouch for all the technical details of a paper, and referees could be blamed if a paper is subsequently found to have flaws.

The anonymous peer review process works when editors are knowledgeable enough to evaluate the reviews. It fails when they cannot interpret the reviews to know which comments are truly critical and which are not.

I don't need it. I do reviews because it is what we do for each other. I have a motto "Friends don't let friends publish bullshit." I review others work (and am a Chief Editor for a leading journal in my field), and I rely on others to do the same for me. I don't need to have my name on the published paper so that I get a little of the reflected glow from the authors' work. No one reads the acknowledgements of a paper, and no one really will care about who reviewed it--unless they think that accepting the paper was a mistake. Then they'll blame the reviewers.

Considerations for those undecided

Everyone is vain to a degree, so there is a potential for altered behaviour associated with seeing one's name in a high-impact journal. Names are fine if it is accompanied by what was actually communicated in a review. Otherwise it gives credit where it may not be due (e.g., for an uncritical or misguided review)

It should be an editorial decision. The editor is best placed to evaluate the reviewers contribution.

Depends on how well I agree with editors decision

Peer review is not the same thing as approval and would possibly lend one's imprimatur. I recently relayed to Nature during the review process that some datasets are so massive or the analyses so complicated that a reviewer is not capable of confirming their veracity.

Nature needs to catch up with the leaders in scientific publishing. Publish the reviews alongside the paper. Just crediting the name of the reviewer as Nature does now is just weird. Publishing the name suggests that they were 100% happy with the finished paper - without the reviews we don't know what the referees really thought.

For those undecided as to the merit of referee accreditation, a variety of considerations were described including:

- A need to publish the referee reports along with, or instead of the reviewer name.
- Whether they agreed with the final result of publication
- The input/ view of the editor to determine the involvement and impact of reviews

Accreditation can be seen as endorsement of the article. But I may still have concerns with a manuscript even though it passes the threshold for publication. I would only be happy with accreditation if my summary opinion of the article were also published.

I'd rather be safe from reprisal than reap any benefits from potential recognition for reviewing specific papers. If there was going to be acknowledgement for reviewing, I would prefer it be decoupled from the particular papers.

If I feel that I helped make the paper better, it's possible I'd like some credit for that. If I was negative about the paper and it was accepted eventually, I probably wouldn't wish to be associated with it.

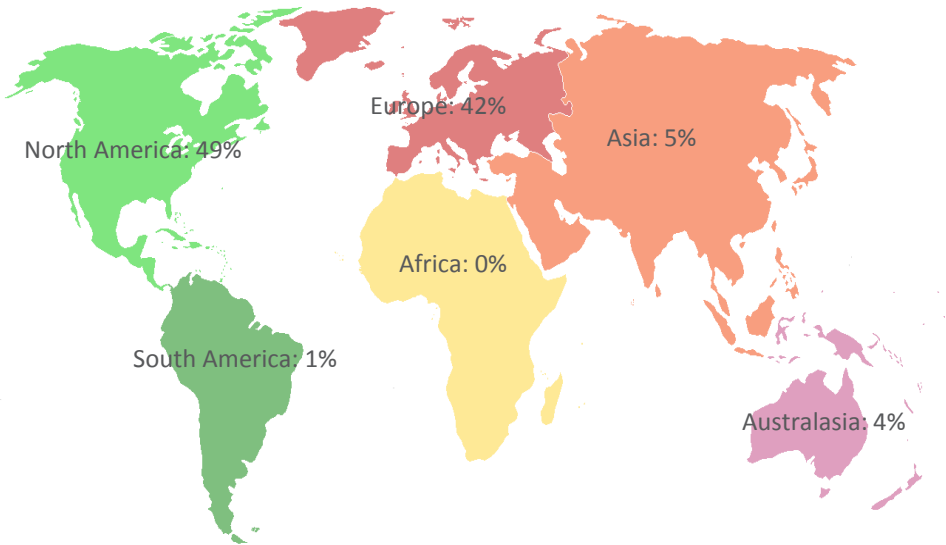
Appendix

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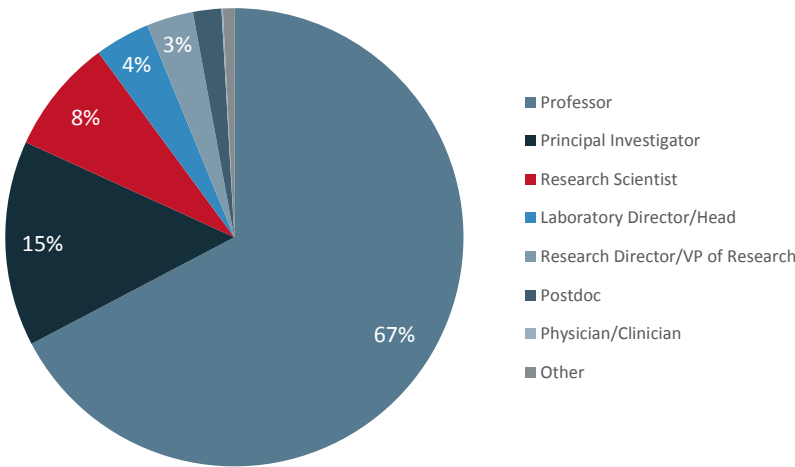
Demographics

The following provides information on the demographic breakdown of all respondents to the survey

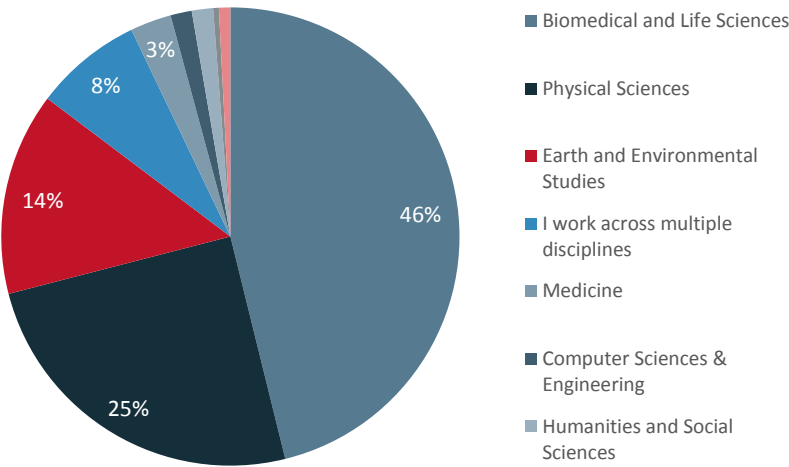
Location of respondents



Job titles of respondents



Respondents' fields of interest



The story behind the image



How chameleons change colour

Chameleons are well known for their potential to change colour but recent research on panther chameleons is the first to find two layers of crystal containing cells, each with a potentially different purpose. Researchers from the University of Geneva have speculated that the deeper crystal containing cells may help with the regulation of temperature, whilst the more superficial layer of colour changing cells could be responsible for camouflage or mating displays.