PHILOSOPHY

MORE HUMILITY NEEDED

25.09.2022

Hoekstra and Vazire on "Aspiring to greater intellectual humility in science"

Although intellectual humility is presented as a widely accepted scientific norm, we argue that current research practice does not incentivize intellectual humility. We provide a set of recommendations on how to increase intellectual humility in research articles

Indeed - many recommendations are counterproductive for a science career...

O. Title and abstract	0.1. The abstract should describe the limitations of the study and boundary conditions of the conclusion(s)
	0.2. Titles should not state or imply stronger claims than are justified (for example, causal claims without strong evidence)
1. Introduction	1.1. The novelty of research should not be exaggerated
	1.2. Selective citation should not be used to create a false sense of consistency or conflict in the literature
2. Methods	2.1. The methods section should provide all the details that a reader would need to evaluate the soundness of the methods and to conduct a direct replication
	2.2. The timing of decisions about data collection, transformations, exclusions and analyses should be documented and shared
3. Results	3.1. Detailed information about the data and results (including informative plots and information about uncertainty) should be provided
	3.2. It should be transparent which analyses were planned and where those plans were documented; weaker conclusions should be drawn to the extent that analyses were susceptible to data-dependent decision-making
	3.3. Inferential statistics should not be used in a way that exaggerates the certainty of the findings; alternatives to dichotomous tests should be considered
4. Discussion	4.1. The statistical uncertainty of results should be incorporated into the narrative conclusions drawn from the results
	4.2. The research summary should capture the full range of results (for example, include our 'most damning result')
	4.3. Causal claims should be only as strong as the internal validity of the study allows
	4.4. Claims about generalizability should be only as strong as the sampling of participants, stimuli and settings allows
	4.5. All conclusions should be calibrated to the confidence in the construct validity of the measures and manipulations
	4.6. Alternative interpretations should be presented in their strongest possible form ('steelmanned')
	4.7. A discussion of the limitations should be incorporated throughout the discussion section, rather than bracketed off in a subsection
5. Post publication guidance for authors	5.1. Insist that press releases and reporters capture the limitations of the work, and correct outlets that exaggerate or misrepresent
	5.2. Encourage criticism, correction and replication of the work, and respond non-defensively when errors or contradictory evidence are brought to light
	5.3. When appropriate, retract papers, issue corrections or publish 'loss of confidence' statements

https://www.nature.com/articles/s41562-021-01203-8

and well, a divergent view at <u>PubPeer</u> .
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