Blindingly Transparent – Anonymity in an Era of Openness: A Reply to Cardini

Shinichi Nakagawa[1,2*] & Malgorzata Lagisz[2]

Affiliations

[1] Department of Biological Sciences, University of Alberta, CW 405, Biological Sciences Building, Edmonton, Alberta, T6G 2E9, Canada

[2] Evolution & Ecology Centre and School of Biological, Earth and Environmental Sciences, The University of New South Wales, Sydney, New South Wales, Australia

*Corresponding author: shinichi.nakagawa@ualberta.ca

Shinichi Nakagawa: https://orcid.org/0000-0002-7765-5182

Malgorzata Lagisz: https://orcid.org/0000-0002-3993-6127

We welcome and appreciate the comment from Cardini [1] on our "ABC of academic writing" [2]. Cardini rightly points out that some of our advice could lead to revealing one's identity inadvertently, jeopardising the double-blind peer review process. Importantly, there is a wealth of evidence that the effectiveness of double-blind review can prevent biases resulting from traditional single-blind review (for a randomised trial from our field, see [3]). Therefore, Cardini argues that preserving equity in the peer review system and writing the text in a way that maintains anonymity is imperative. We concur with this point.

However, we now live in an era of open and transparent science [4]. We strongly believe research methods should be described in as much detail as possible, which might clearly state, for example, where experiments were conducted and what the role of each coauthor was. The latter is increasingly important as the average number of coauthors increases per scientific paper ("On the extinction of the single-authored paper", see [5]); such an increase, in part, reflects a rise in collaboration or team science as we tackle more complex and scaled-up scientific questions [6]. Of relevance, with our colleagues, we have proposed MeRIT (Methods Reporting with Initials for Transparency) [7], where we write the Methods section using one's initials to clarify who did what (e.g., SN fitted a series of statistical models under ML's supervision); this level of granularity is not covered by the now widely adopted CRediT system (Contributor Roles Taxonomy). Furthermore, we believe all materials, including computational scripts that could contain author identities, should be available for review. We think both issues can be relatively easily resolved by rewriting, although it does add more work for authors, and we speak from experience (for how to anonymise the code, see: https://www.youtube.com/watch?v=DgnF5tDRGTY&t=11s).

In the age of AI, publishers could offer an automated anonymisation system instead of placing more burden on authors. Developing such an anonymisation algorithm should be a straightforward task and should be integrated into the submission system. If we have easy access to such an automated system, transparency and double-blind review can coexist (Fig. 1). Notably, we (SN and ML) often attempt to conduct a double-blind peer review without internet access. Let's be honest and realistic. If we truly wish to identify the authors, we could likely do so in one way or another. For example, many authors now freely share their preprints online before submission. We can compile a list of likely authors by searching the Internet or consulting a large language model.

In conclusion, we must strive to strike a balance between open and transparent science and the double-blind review process. Achieving this balance and implementing it should involve not only researchers but also journal editors and, most importantly, journal publishers. Meanwhile, we stand for our Writing Alphabet, which helps scientific writing.

References

1. Cardini, A. (2024) Science writing: avoid the peril of 'revealing too much': Comment to Nakagawa and Lagisz. *Trends Ecol Evol*,
2. Nakagawa, S. and Lagisz, M. (2024) The ABC of academic writing: non-native speakers' perspective. *Trends Ecol Evol* 39, 307-310. 10.1016/j.tree.2024.01.008
3. Fox, C.W. *et al.* (2023) Double-blind peer review affects reviewer ratings and editor decisions at an ecology journal. *Funct Ecol* 37, 1144-1157. 10.1111/1365-2435.14259
4. O'Dea, R.E. *et al.* (2021) Towards open, reliable, and transparent ecology and evolutionary biology. *Bmc Biol* 19. ARTN 68. 10.1186/s12915-021-01006-3
5. Barlow, J. *et al.* (2018) On the extinction of the single-authored paper: The causes and consequences of increasingly collaborative applied ecological research. *J Appl Ecol* 55, 1-4. 10.1111/1365-2664.13040
6. Coles, N.A. *et al.* (2022) Build up big-team science. *Nature* 601, 505-507. 10.1038/d41586-022-00150-2
7. Nakagawa, S. *et al.* (2023) Method Reporting with Initials for Transparency (MeRIT) promotes more granularity and accountability for author contributions. *Nat Commun* 14. 10.1038/s41467-023-37039-1

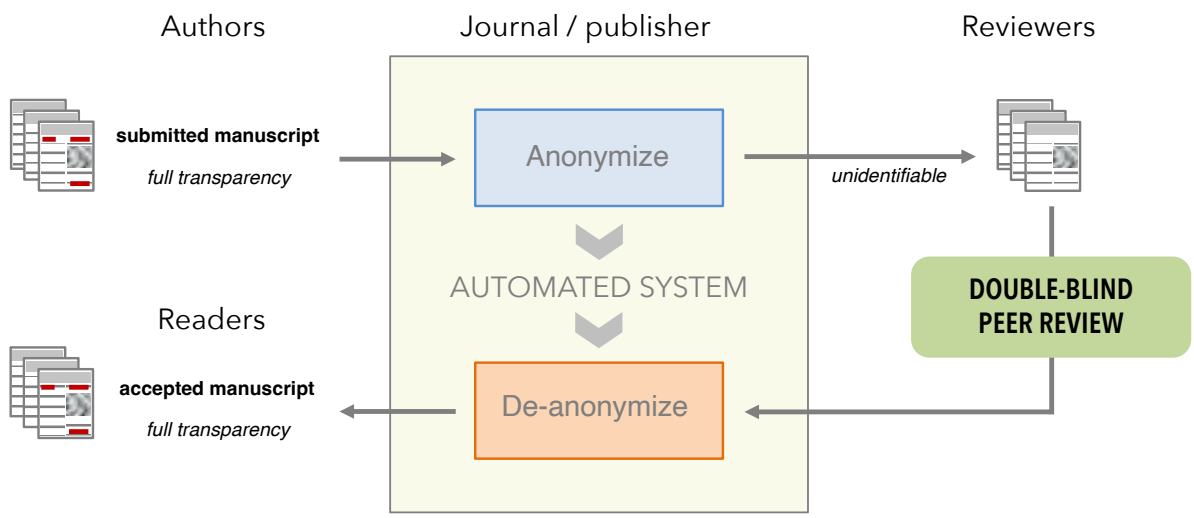

Figure 1. A proposed automated system for anonymising and de-anonymizing manuscripts for coexistence for transparent reporting and double-blind reviews