

Invited Perspective Article – 50th Anniversary JEP:HPP

Article Published in JEP:HPP

Souza, A. S. (2025). JEP:HPP Is TOP: Editorial policies for transparency and openness in publishing. *Journal of Experimental Psychology: Human Perception and Performance*, 51(12), 1619–1622.
<https://doi.org/10.1037/xhp0001299>

JEP:HPP is TOP: Editorial Policies for Transparency and Openness in Publishing

Alessandra S. Souza

Center for Psychology, Faculty of Psychology and Education Sciences, University of Porto,
Portugal

Running head: Transparency and Openness

Author Note

A. S. Souza was supported by a grant from the Portuguese Foundation for Science and Technology (<https://doi.org/10.54499/CEECINST/00159/2018/CP1511/CT0002>).

Correspondence should be sent to Alessandra S. Souza, University of Porto, Faculty of Psychology and Education Sciences, Rua Alfredo Allen s/n, 4200-135. Email: alessandra@fpce.up.pt

Conflict of interest

The authors have no conflict of interest to declare.

Data availability statement

All data and code used is available on the Open Science Framework: <https://osf.io/d2rz6/>

Abstract

JEP:HPP is commemorating its 50th anniversary. To celebrate, this commentary examines the adoption of open science practices as a function of the editorial policies implemented in the journal over a period of eight years (2016-2023). Between 2016-2017, no open science policy was in effect. Accordingly, rates of materials/data/code sharing and preregistration were nearly 0 in published articles. In 2018, policy changed requiring sample-size justification and recommending inclusion of open science practices. This produced almost 100% sample-size justification compliance between 2019-2020, and an increase in the adoption of all open science practices. Finally, in 2021, the journal adopted the Transparency and Openness in Publishing (TOP) guidelines. Between 2022-2023, adoption of all open science practices further increased, with over 88% of articles sharing their data and about half sharing the analysis code. This analysis shows that editorial policies can have a pivotal role in driving authors toward more transparent and replicable practices in their published papers.

Keywords: editorial policies, open science, transparency, openness, practice

JEP:HPP is TOP: Editorial Policies for Transparency and Openness in Publishing

As part of the commemorations of the 50th anniversary of JEP:HPP, this commentary examines the changes in the adoption of open science practices in JEP:HPP's articles over a period of eight years (2016-2023). The main goal is to reflect on how editorial policies shaped open-science adoption by authors, further establishing JEP:HPP's reputation as one of the primary outlets in the field for the publication of rigorous research on human perception and performance.

I looked at articles¹ published in three periods: 2016-2017, 2019-2020, and 2022-2023. I selected these years because they reflect different stages of editorial policies regarding open science. In 2016-2017, no specific mandate regarding open science existed, although this period was ripe for the discussion of more transparency. The field was overturned by the 2015 article on the reproducibility of Psychological research (Open Science Collaboration, 2015), and the proposal of the Transparency and Openness in Publishing (TOP) guidelines (Nosek et al., 2015). The issues of reproducibility and the researcher's degree of freedom have been discussed for a few years already (Ioannidis, 2005; Simmons et al., 2011; Wagenmakers et al., 2011) and several journals already signed the TOP guidelines and changed their editorial policies (Eich, 2014; Grahe, 2018; Lindsay, 2017). Change was on its way, yet slowly progressing.

In 2018, under the new editorship of Isabel Gauthier, authors were recommended to share data and materials, and methodological decisions had to be better justified, with

¹ Observations and research reports were included; corrections were excluded.

sample-size justification becoming obligatory (Gauthier, 2018). Therefore, 2019-2020 represents a period in which editorial policies mandated sample-size justification and open science practices were recommended. Another editorial policy change occurred in 2021, with the American Psychological Association (APA) adhering to the TOP guidelines. APA left the decision to journal editors regarding the degree of implementation of these guidelines. JEP:HPP adhered to a level 2 reporting, requiring authors to include a method subsection entitled Transparency and Openness clarifying if data, code, and materials are being shared, and whether the study was preregistered. The evaluation of articles in the 2022-2023 period assessed the impact of this measure. Note that I did not code articles published in 2018 and 2021 because they represent transition periods.

The coding involved searching within the articles for statements indicating sample-size justification, the sharing of data, analysis code, and experimental materials, and the preregistration of the hypotheses and the analysis plan.² I also coded for publication in open access mode based on the journal's website, and whether the papers included the required subsection on Transparency and Openness after the TOP mandate (and in prior years, if they highlighted this information in a section of its own). When authors shared a link to a public repository, I followed it to check the functional availability of the materials/data/code as stated in the paper. Table 1 presents, per year, the raw number of articles that stated the adoption of the evaluated open science practices. Figure 1 shows the proportion of articles stating the adoption of each practice as a function of the editorial

² Hence the criterion to define whether a practice was followed is based on finding statements within the paper such as: "the data and analysis code are available at:"; "All data, stimuli and analysis scripts belonging to this research are available at..."; "As preregistered (URL), ..."; "the study protocol was preregistered at..."

policy in effect (aggregating over the two years). Unfortunately, I found several occasions on which the link to the repository was not functional (e.g., due to the project being in private mode, empty, or no longer available) – which I coded as Access Failures in Table 1. I contacted the corresponding author requesting the correction of the issue and got a response that solved it in 10 instances (ca. 34% of the identified cases). For most cases of access failure, this situation would have been prevented if access was checked during the review process (e.g., project in private mode).

Table 1

Number of Articles per Year that Adhered to Open Science Practice and Number of Articles in Which Access Failed via the Link Provided.

Practice\Year	Editorial Policy – Open Science					
	No mandate		Sample-size justification		Transparency & openness	
	2016	2017	2019	2020	2022	2023
Sample-size justification	19	22	100 ^a	95	85	100
Open access	5	4	5	3	4	10
Open materials	5	3	22	26	29	45
Open data	6	8	58	64	79	93
Open code	4	7	31	27	44	67
Preregistration – hypotheses	0	1	7	8	16	21
Preregistration – analysis plan	0	1	3	4	13	17
Transparency & openness section	0	1	0	0	16	74
<i>Access Failure*</i>	2	3	2	4	11	7
Total N of Articles	163	145	109	99	92	103

Notes. Definition of practices: open access is the availability of the article, free of subscription, on the journal's website. Open Materials include the sharing of stimuli, code to run the experiment, instructions, surveys, etc, which are necessary to replicate the study. Open data refers to the data underlying the study. Open code is the sharing of the input for the analysis (e.g., SPSS syntax, R code, etc). Preregistration – hypothesis and Preregistration – analysis plan considered if the preregistered plan included the study's hypotheses and a section with the analysis plan, respectively. Often preregistrations contained both. The transparency and openness section refers to separate section in the method (for articles after 2022 or a similar section in prior years).

* Failure of access could be related to open materials, code, or data – depending on the statement in the paper. Note that of the 29 identified cases, 10 were solved after I contacted the authors via email.

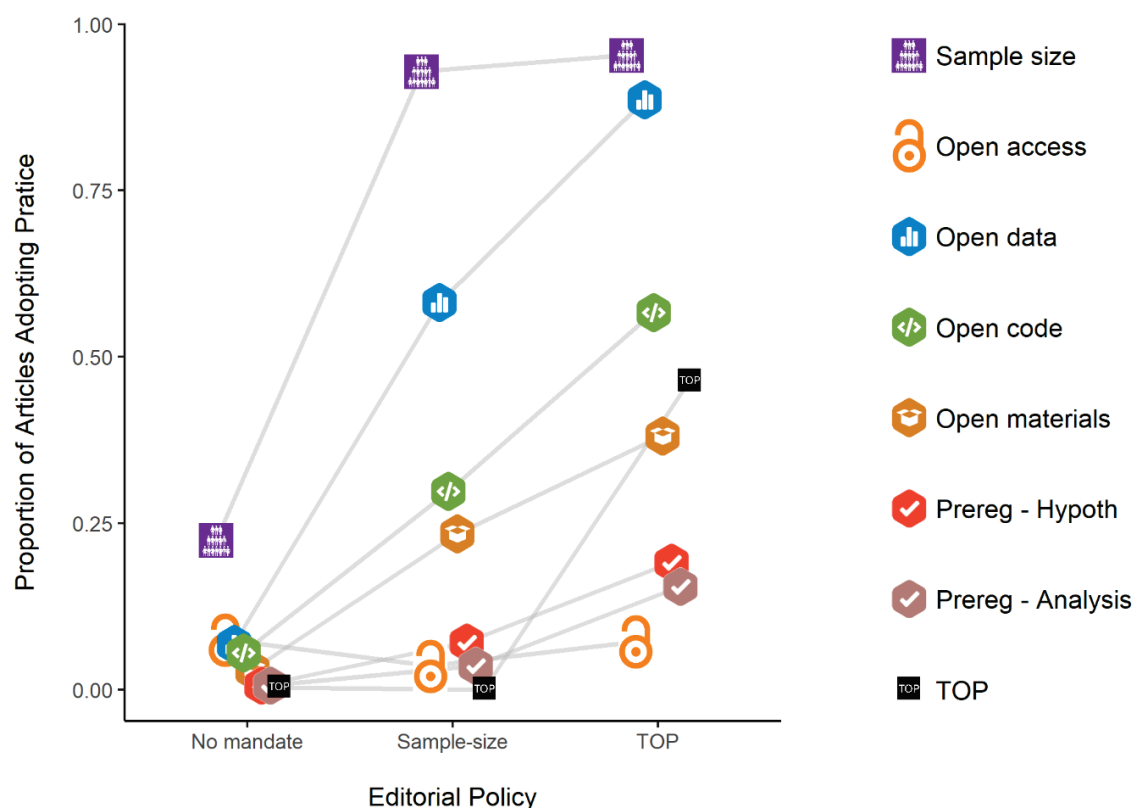
^a There was one article in which sample-size justification did not apply (data re-analysis)

Figure 1 shows a marked change in the adoption of open science practices in articles published in JEP:HPP as a function of the editorial policy. Prior to 2018, open science practices were scarcely implemented, with sample-size justification being the most frequent, but only present in around 25% of the papers. With the change in editorial policy demanding sample-size justification, nearly all articles included this information thereafter, which is not surprising given that the editorial team was actively monitoring compliance (Gauthier, 2018). Although not imposed, the recommendation to adopt open science practices seems to have promoted an increase in their adoption. This trend was further strengthened after the TOP policy was implemented. Although not all articles include the TOP section within the article (despite this being required), there was a marked increase in data sharing, open code, and even open materials. This result contrasts with recent analyses of open science practices in a random sample of articles published in prominent psychological journals in 2022 (Hardwicke et al., 2024), which estimate implementation rates to be 14% for preregistration and open code, 16% for open data, and 19% for open materials, with only a modest increase compared to a similar analysis of publications between 2014-2017 (Hardwicke et al., 2022). In contrast, the implementation of open science practices in JEP:HPP between 2022-2023 ranged from 15-19% for preregistration, 38% for open materials, 56% for open code, and 88% for open data, therefore being clearly above the values observed by Hardwicke et al (2024). It is worth noting that within the TOP section, authors must explicitly state what they are sharing and what not, which may foster reflection about the reasons not to be transparent. Future

research should consider if this is what is driving the increase in open science practices observed here.

Figure 1

Proportion of Articles Adopting Open Science Practices as a Function of the Editorial Policy in Effect in JEP:HPP.



Note. Prereg-Hypoth = preregistration of the hypotheses; Prereg – Analysis = preregistration of the analysis plan. TOP = Transparency and openness in publishing. In the legend, TOP codes for the inclusion of a subsection named *Transparency and Openness* within the manuscript. Open science badges in this figure are freely available at: <https://osf.io/tvyxz/files/osfstorage>. Open access logo is available at: https://commons.wikimedia.org/wiki/File:Open_Access_logo_PLoS_white.svg. The remaining logos (sample size and TOP) were created by the author.

Previous analyses have suggested that editorial policies can increase the adoption of open science practices (Giofrè et al., 2017, 2023; Kidwell et al., 2016). Figure 1 shows that the editorial decision to adhere to TOP was associated with an increase in the adoption of nearly all open

science practices in JEP:HPP. Although lacking data from a comparison journal, these results are suggestive of a positive impact in line with the literature. Notwithstanding, there is still room for improvement. The sharing of code that would allow for the replication of the analyses is still limited, although pleas have been made for more active monitoring by journals regarding computational reproducibility (Lindsay, 2023). The same holds for open materials. Even though authors may consider that open materials are not necessary when using stimuli such as letters or simple shapes (which is common in JEP:HPP), the sharing of the experiment code (with instructions and all implemented details) can facilitate replication and should be encouraged (Grahe, 2018). Study preregistration is also not common, although this practice can reduce bias in the reporting of results (Hardwicke & Wagenmakers, 2023). Finally, only about half of the recent papers included the Transparency and Openness section (although mandated by the journal), which enormously facilitates the identification of the open science practices followed. When authors do not include this section, they often include a statement regarding the data availability in the author's note or statements in the methods or results – which require a more intense scanning of the paper. JEP:HPP seems to be on its way to verifying that all authors comply with the TOP requirement, in addition to sample size justification and other formatting guidelines, with the implementation of an intern junior position in 2023 (Guérin et al., 2024). Although recent analyses suggest that many journals do not comply with the TOP guidelines (Grant et al., 2023), JEP:HPP seems to be aligning policy and practices by not only including mandates in the author's instructions, but also monitoring compliance.

Overall, the current analysis suggests that editorial policies can have an important impact on the adoption of open science practices, highlighting the relevance of journals in fostering more transparent research and their pivotal role in the research ecosystem (Silverstein et al., 2024). JEP:HPP is one of the prominent journals in cognitive psychology, and its editorial policies and

active monitoring of their implementation have been effective in promoting more transparency and openness in the research disseminated in this outlet.

Transparency and Openness

All the data and the analysis code to generate Figure 1 are available on the Open Science Framework (Souza, 2024): <https://osf.io/d2rz6/> . The analysis protocol was not preregistered.

References

- Eich, E. (2014). Business Not as Usual. *Psychological Science*, 25(1), 3–6.
<https://doi.org/10.1177/0956797613512465>
- Gauthier, I. (2018). Inaugural editorial. *Journal of Experimental Psychology: Human Perception and Performance*, 44(1), 1–1. <https://doi.org/10.1037/xhp0000519>
- Giofrè, D., Boedker, I., Cumming, G., Rivella, C., & Tressoldi, P. (2023). The influence of journal submission guidelines on authors' reporting of statistics and use of open research practices: Five years later. *Behavior Research Methods*, 55(7), 3845–3854.
<https://doi.org/10.3758/s13428-022-01993-3>
- Giofrè, D., Cumming, G., Fresc, L., Boedker, I., & Tressoldi, P. (2017). The influence of journal submission guidelines on authors' reporting of statistics and use of open research practices. *PLOS ONE*, 12(4), e0175583.
<https://doi.org/10.1371/journal.pone.0175583>
- Grahe, J. (2018). Another step towards scientific transparency: Requiring research materials for publication. *The Journal of Social Psychology*, 158(1), 1–6.
<https://doi.org/10.1080/00224545.2018.1416272>
- Grant, S., Mayo-Wilson, E., Kianersi, S., Naaman, K., & Henschel, B. (2023). Open Science Standards at Journals that Inform Evidence-Based Policy. *Prevention Science*, 24(7), 1275–1291. <https://doi.org/10.1007/s11121-023-01543-z>
- Guérin, S. M. R., Tarlao, C., & Karabay, A. (2024). Our journey as intern junior editors at the Journal of Experimental Psychology: Human Perception and Performance. *Science Editing*, 11(2), 160–163. <https://doi.org/10.6087/kcse.345>

- Hardwicke, T. E., Thibault, R., Clarke, B., Moodie, N., Crüwell, S., Schiavone, S., Handcock, S., Nghiem, K. A., Mody, F., Eerola, T., & Vazire, S. (2024). *Prevalence of transparent research practices in psychology: A cross-sectional study of empirical articles published in 202*. <https://doi.org/10.31234/osf.io/t2zs9>
- Hardwicke, T. E., Thibault, R. T., Kosie, J. E., Wallach, J. D., Kidwell, M. C., & Ioannidis, J. P. A. (2022). Estimating the Prevalence of Transparency and Reproducibility-Related Research Practices in Psychology (2014–2017). *Perspectives on Psychological Science*, 17(1), 239–251. <https://doi.org/10.1177/1745691620979806>
- Hardwicke, T. E., & Wagenmakers, E.-J. (2023). Reducing bias, increasing transparency and calibrating confidence with preregistration. *Nature Human Behaviour*, 7(1), 15–26. <https://doi.org/10.1038/s41562-022-01497-2>
- Ioannidis, J. P. A. (2005). Why Most Published Research Findings Are False. *PLOS Medicine*, 2(8), e124. <https://doi.org/10.1371/journal.pmed.0020124>
- Kidwell, M. C., Lazarević, L. B., Baranski, E., Hardwicke, T. E., Piechowski, S., Falkenberg, L.-S., Kennett, C., Slowik, A., Sonnleitner, C., Hess-Holden, C., Errington, T. M., Fiedler, S., & Nosek, B. A. (2016). Badges to Acknowledge Open Practices: A Simple, Low-Cost, Effective Method for Increasing Transparency. *PLOS Biology*, 14(5), e1002456. <https://doi.org/10.1371/journal.pbio.1002456>
- Lindsay, D. S. (2017). Sharing Data and Materials in Psychological Science. *Psychological Science*, 28(6), 699–702. <https://doi.org/10.1177/0956797617704015>

Lindsay, D. S. (2023). A Plea to Psychology Professional Societies that Publish Journals:

Assess Computational Reproducibility. *Meta-Psychology*, 7.

<https://doi.org/10.15626/MP.2023.4020>

Nosek, B. A., Alter, G., Banks, G. C., Borsboom, D., Bowman, S. D., Breckler, S. J., Buck, S.,

Chambers, C. D., Chin, G., Christensen, G., Contestabile, M., Dafoe, A., Eich, E.,

Freese, J., Glennerster, R., Goroff, D., Green, D. P., Hesse, B., Humphreys, M., ...

Yarkoni, T. (2015). Promoting an open research culture. *Science*, 348(6242), 1422–

1425. <https://doi.org/10.1126/science.aab2374>

Open Science Collaboration. (2015). Estimating the reproducibility of psychological

science. *Science*, 349(6251), aac4716. <https://doi.org/10.1126/science.aac4716>

Silverstein, P., Elman, C., Montoya, A., McGillivray, B., Pennington, C. R., Harrison, C. H.,

Steltenpohl, C. N., Röer, J. P., Corker, K. S., Charron, L. M., Elsherif, M., Malicki, M.,

Hayes-Harb, R., Grinschgl, S., Neal, T., Evans, T. R., Karhulahti, V.-M., Krenzer, W. L.

D., Balaus, A., ... Syed, M. (2024). A guide for social science journal editors on easing

into open science. *Research Integrity and Peer Review*, 9(1), 2.

<https://doi.org/10.1186/s41073-023-00141-5>

Simmons, J. P., Nelson, L. D., & Simonsohn, U. (2011). False-Positive Psychology:

Undisclosed Flexibility in Data Collection and Analysis Allows Presenting Anything
as Significant. *Psychological Science*, 22(11), 1359–1366.

<https://doi.org/10.1177/0956797611417632>

Souza, A. S. (2024). *Data & Code—JEP:HPP is TOP: Editorial Policies for Transparency and*

Openness in Publishing. <https://doi.org/10.17605/OSF.IO/D2RZ6>

Wagenmakers, E., Wetzels, R., Borsboom, D., & van der Mass, H. (2011). Why psychologists must change the way they analyze their data: The case of psi: Comment on Bem (2011). *Journal of Personality and Social Psychology*, 100(3), 426–432. <https://doi.org/10.1037/a0022790>