

OPEN PEER COMMENTARY

Open Research Practices and Cultural Change: A Commentary on “(Why) Are Open Research Practices the Future for the Study of Language Learning?”

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Keywords open research; open science practices; cultural change; social inequality

In their article, Marsden and Morgan-Short argue that “open research is indeed a large part of our future, and most—if not all—challenges are surmountable, but doing so requires significant changes for many aspects of the research process.” We share Marsden and Morgan-Short’s premise that open research practices will play an important role in the future but that many questions about how to implement them successfully are still open and need to be discussed. Taking up and extending their thoughts on the cultural embeddedness of open research practices, this commentary argues that open research can only be the future if there is a cultural change based on changes in practices. We ask why and how change can occur from a praxeological perspective.

From the perspective of a theory of practice, it can be assumed that a change in practices of science at the micro level can lead to a change in the

CRedit author statement – **Isabel Steinhardt**: conceptualization (equal); writing – original draft preparation (lead); writing – review & editing (equal). **Sylvi Mauermeister**: conceptualization (equal); writing – original draft preparation (support); writing – review & editing (equal). **Rebecca Schmidt**: conceptualization (equal); writing – review & editing (support).

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The handling editor for this article was Pavel Trofimovich.

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science system as a whole (Bourdieu, 1977). In addition, practices change in reciprocal interaction with surrounding structures, which must also be considered. Therefore, the following conditions are important:

- First, there must be a trigger, a reason why individuals begin to change their practices. For the science system, this reason is the crisis of science, which consists of the replication crisis, questionable research practices (e.g., *p*-hacking), the quantification of research output, and the loss of public trust in science (Saltelli & Funtowicz, 2017).
- Second, motivation of science and society must be considered. As central motives for the establishment of open research practices, Marsden and Morgan-Short name political frameworks (UNESCO), democratic values (i.e., “democratic and community-spirited values of the open research movement”), and scientific theoretical arguments (i.e., “the drive for transparency increases our general sense of epistemological responsibility for pursuing and reporting true findings”). In addition to the motives mentioned by Marsden and Morgan-Short, we believe that too little attention has been paid to important motives for scientists to engage in open research practices: the requirements of third-party funding and the discoverability of publications through open access and the associated prospect of high citation counts. Third-party funding, citation indexes, and rankings play a central role in furthering academic careers. In our view, these motives could be a key driver for the establishment of open research practices. After all, these motives are already being served within existing structures.
- Third, researchers who have already adopted open research practices and who have sufficient cultural capital and reputation to implement appropriate changes are needed as role models. Such role models are crucial because the goal of cultural change is the transformation of established practices. These new practices need to be exemplified by holders of capital in order to reduce fears of individual disadvantage, for example, among young researchers.

When cultural change occurs (i.e., when practices in disciplinary cultures change), it is accompanied by a change in structures and power positions in the respective field or disciplinary culture (Trowler et al., 2014). Processes of change are therefore contested because they are associated with shifts in power. Marsden and Morgan-Short have already touched on some points where a shift of power in the field or disciplinary culture can become visible: the struggle between qualitative, quantitative, and mixed-methods

research; the status of replication studies; the deepening of social and economic inequalities (i.e., the Global South is largely excluded from open research practices); and changes in common conceptions of research quality. In order to anticipate the negative effects of open research practices, these struggles have been discussed in various ways in the open science movement (e.g., see Heck et al., 2023):

- First, if replication were introduced as the new gold standard, it could devalue qualitative research because, when conducting interviews or ethnographic observations, the researcher is involved in what is happening, which is why replication is generally difficult. Therefore, qualitative research is subject to the quality criteria of transparency and intersubjective traceability rather than the criteria of objectivity, validity, or reliability.
- Second, it is to be feared that the regional inequalities in the science system that Marsden and Morgan-Short have identified will not be significantly reduced by open access alone in the medium term, particularly without further readjustment, and that the relative differences will remain (e.g., even if all publications in the Global South were open access).
- Third, other relevant dimensions of inequality in science, such as gender (e.g., the Matilda effect, which describes, among other things, that scientific contributions in gender-mixed teams are more likely to be attributed to men) or publication cultures (e.g., emphasis on [online] journals vs. [print] monographs and related differences in the opportunity to be cited), also remain relatively unconsidered.
- Fourth, Marsden and Morgan-Short's call to link open data practices to rewards could also disadvantage research areas that work with vulnerable groups, because (video or audio) data from specific individuals have strict data protection and ethic regulations that make it difficult to share these data openly. Therefore, in qualitative research, there is a lot of discussion about repositories (data infrastructures) that enable the secure reuse of sensitive (personal) data and thus allow researchers to establish open research practices, and less consideration given to awards (Steinhardt et al. 2021).
- Finally, given the existing regional disparities in access to open research that Marsden and Morgan-Short identified, the geographical differences in the quality and quantity of professional support structures should be considered. We assume that science management structures (e.g.,

administrative professionals providing support for various research activities such as data management) and data infrastructures will become increasingly important resources for the establishment of open research practices. However, such support structures exist mainly in the Global North, but they are less established in the Global South (Kerridge & Scott, 2018).

Marsden and Morgan-Short's article identified and comprehensively reflected on the opportunities and challenges of open research. This makes it a wonderful starting point for exposing practices in science and the prevailing inequalities of the science system. Therefore, to reduce inequalities in an open research culture, researchers must continue to engage in a critical reflection and analysis of open science practices.

Final revised version accepted 6 April 2023

Acknowledgments

Open access funding enabled and organized by Projekt DEAL.

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