

Forthcoming editorial in *Critical Public Health*

Premature evaluation? Some cautionary thoughts on global pandemics and scholarly publishing

Kirsten Bell, Department of Life Sciences, University of Roehampton, UK

Kirsten.bell@roehampton.ac.uk

Judith Green, Wellcome Centre for Cultures & Environments of Health, University of Exeter, UK

In the space of two short months, the coronavirus pandemic has transformed the social, economic and political landscape across the globe. For many, our research plans and projects have been one of the casualties of the virus, but we are also increasingly being assured that the virus is not just an impediment but an opportunity. Inboxes are daily flooded with requests to contribute to special issues or blogs on the coronavirus, and research funders have been fast to develop funding calls for research on the pandemic. Thus, among the many uncertainties of the COVID-19 pandemic, one clear outcome has been an incitement to publish.

Many researchers have quickly risen to the challenge of analysing and understanding the new environment in which we find ourselves – from the characteristics of the virus itself, to its long-term social, psychological and economic consequences. The net effect has been an extraordinary proliferation of research and commentary on the pandemic. As a recent media commentator observes, ‘The speed and volume of research into the novel coronavirus is unprecedented’ (Weber 2020). This becomes obvious when the coronavirus pandemic is compared with the 2003 SARS epidemic. According to Xing et al. (2010), only 7% of studies of the outbreak were published during the crisis itself, although many were ‘aimed at solving practical clinical and epidemiological problems’ associated with it. In stark contrast, LitCovid, a literature hub for ‘tracking up-to-date scientific information about the 2019 novel Coronavirus’, currently lists 9,402 articles in PubMed, with more than 1,700 papers on this topic being published per week as of 5

May 2020 – a figure that is clearly conservative, given that the database primarily indexes the biomedical literature.

Although the agility of scientific communication about the coronavirus is often positively contrasted with the ‘sluggish’ nature of scientific communication in prior decades (Kupferschmidt 2020), some are uneasy about the speed at which research is being produced. For example, in February, a media commentator compared the spread of the coronavirus to a ‘parallel viral spread’ of science on the virus, ranging from ‘robust to rogue’ (Keland 2020). Concerns have been raised about the rapidity of some publishing, as efforts to disseminate quickly have resulted in an avalanche of pre-prints being posted. Whilst these are generally labelled as having no up-front peer review, there is still a concern that weak, or even wrong, findings disseminate, amplify and potentially enter into scientific and popular discourse – such as the manuscript posted on a preprint server suggesting similarities between the coronavirus and HIV. Quickly retracted, it was nevertheless picked up by numerous news outlets (Keland 2020).

Such accounts typically assume that the problem resides in the ways that usual processes of peer review are being bypassed in the rush to understand and respond to the coronavirus. However, they often take for granted the infallibility of peer review, despite the fact that the system has never been any sort of guarantor of quality (Fitzpatrick 2011; Green & Speed 2018). Moreover, the rush to produce research results is hardly unique to the pandemic. The coronavirus has merely crystallised – in particularly acute form – the context of scholarly knowledge production under the conditions of the contemporary knowledge economy (see Stengers 2017). As Adams and colleagues (2014: 180) note of scholarship in the field of global health:

...we are all being asked to be productive in ways that create a sense of having to do more and to do it faster, to multitask for survival in a global workplace, to always be thinking of the next big thing, to scale up and implement, often even before we have completed our tasks at hand. Our perception of normalcy in relation to the pace and vigor of our work seems governed by entanglements in anticipation, innovation, and speed.

While the speed of knowledge production on the coronavirus (both its successes and failures) has become central to narratives about the pandemic, another narrative has simultaneously emerged regarding the ways in which the pandemic is exacerbating inequalities in such knowledge production. For example, a recent article in *Inside Higher Education* suggests that the coronavirus

is ‘tanking’ women’s research productivity (Flaherty 2020), quoting the editors of two journals indicating that they are observing unusual, gendered patterns in submission, with publications by women down in comparison to men’s – especially for sole-authored submissions. Other blog pieces have identified similar patterns, and the disproportionate effect the pandemic is having on female academics (e.g., Kitchener 2020). In Twitter threads on the topic, some have gone so far as to suggest a moratorium on journal submissions to resolve the gender imbalance.

We have little doubt that the coronavirus is crystallising inequalities in scholarly knowledge production (gendered and otherwise) in much the same ways that it is serving to highlight inequalities in other areas. These are clearly imperative to study in the months and years ahead as the immediate crisis passes and we return to some semblance of normality (whatever that ultimately looks like). However, in the same way that there are good reasons to be critical of the rush to publication about the coronavirus, we would suggest the need for caution in rushing to judgement around the impacts of the coronavirus on scholarly publishing itself – especially on the basis of decontextualized quantitative data regarding author submission rates. Scholarly submissions are one part of a larger ecosystem. This ecosystem has been under threat for some years based on the combined effects of the corporate domination of academic publishing, the tsunami of publications engendered by the commodification of knowledge, and the enormous strain on peer review processes it has produced (Green & Speed 2018). Moreover, in conditions of growing academic precarity, peer review has increasingly been reconceptualized *as* labour – albeit a form that is largely invisible under academic audit regimes, in contrast to the hypervisibility of ‘outputs’ themselves. These factors have combined to create not just the widely publicised ‘crisis in peer review’, but a less widely publicised crisis in peer reviewers, with willing and able peer reviewers increasingly difficult to find.

The current system, already fragile, appears to be crumbling under the intensification of the aforementioned processes that the coronavirus has engendered, with an increase in submissions at the very same moment when academics are increasingly baulking at being asked to peer review them. The extent of the peer reviewer problem is evident in the ‘important message’ the Scholar One submission platform now carries from its corporate owner, Clarivate Analytics, stating ‘Clarivate recognizes the impact of the COVID-19 pandemic on peer-review operations and is

here to help however we can'. Such corporate reassurances of support for the research community may, paradoxically, have exacerbated the problem, especially in combination with publisher Taylor and Francis's blithe assurances that they are 'prioritising rapid publication of COVID-19 materials'. Potential authors may make little distinction between the owners of scholarly infrastructures and the (unpaid) academic teams who have to deliver editorial administration, peer review and decision making. Seeing messages offering help and support gives the false impression that under-resourced editorial offices are equipped to cope with fast review, encouraging rapid submission.

These effects are suggested at *CPH* when our decision rates for January and April are compared, with the past month witnessing a noticeable increase in the rate of rejections (from 58% to 78%), and few manuscripts already in the system being processed. Importantly, the high rejection rate in April has been driven primarily by outright rejections of papers not in scope for the journal. These have been mostly on the coronavirus and are by scholars who are clearly unfamiliar with *CPH* and assume that the 'critical' in our title relates to the urgency of the public health issues we cover as opposed to the intellectual approach we take to public health. Particularly concerning is the high number of rejections from parts of the world that are less usually represented in our submissions. Submissions from the UK, North America and Australasia (the regions that typically dominate our submissions) were largely unchanged in January - April 2020, compared with the same months in 2019. However, those from typically less represented countries in Asia, Africa, the Middle East, Central and South America, and East & Central Europe rose from 23 in the first four months of 2019 to 54 during the same period in 2020. The inequalities of global publishing are well documented (Plancikova, Duric & O'May 2020), reflecting inequalities not just in access to material resources such as research funding, but, perhaps more importantly, inequalities in access to the informal cultures of publishing: skills in targeting journals, writing in academic English, and crafting arguments for anglophone scholarly communities.

Submission rates are not, then, a reliable indicator of eventual publication. The same caveat applies to any analysis of gender differences in publication. Although the question of gender patterns in submissions since the emergence of the pandemic has been much debated, it is not straightforward to unpack what is going on. Most manuscript submission platforms do not break down submissions on the basis of the author's gender; thus, gender must be ascertained through

imperfect proxies such as the author's name. This, as we quickly discovered, requires a series of decisions about how to assign a gender to names – an especially challenging task for unisex appellations (e.g., 'Chris', 'Lee'), or those from unfamiliar cultural contexts. Google searches help with this to some degree, but only insofar as photographs are also an imperfect proxy for the fluid category of gender. Further complicating matters is the question of how to assign gender in the context of multiple-authored papers. Should the submitting author be prioritised? The first author? Authorship order means different things in different disciplines and universal assumptions cannot be made about what authorship position implies – especially for an interdisciplinary journal such as ours. All this is to say that the business of determining the impact of gender on submission patterns is a far-from-straightforward process, even when approached in a purely technical fashion.

Bearing these limitations in mind, our analysis of the first author listed on the last seven months of submissions did indeed suggest that there had been a dramatic proportional increase in submissions from male authors during the month of April compared with prior months, which skew strongly female (see figure 1). However, when we repeated the process for the same period in the previous year, what had seemed like a marked gender shift suddenly looked more like random fluctuation (see figure 2). Our rather preliminary analyses would therefore suggest the need for caution in drawing any conclusions on the basis of current submission patterns without taking into consideration the broader publication patterns in the journal in question, or the larger ecology of scholarly publishing itself.

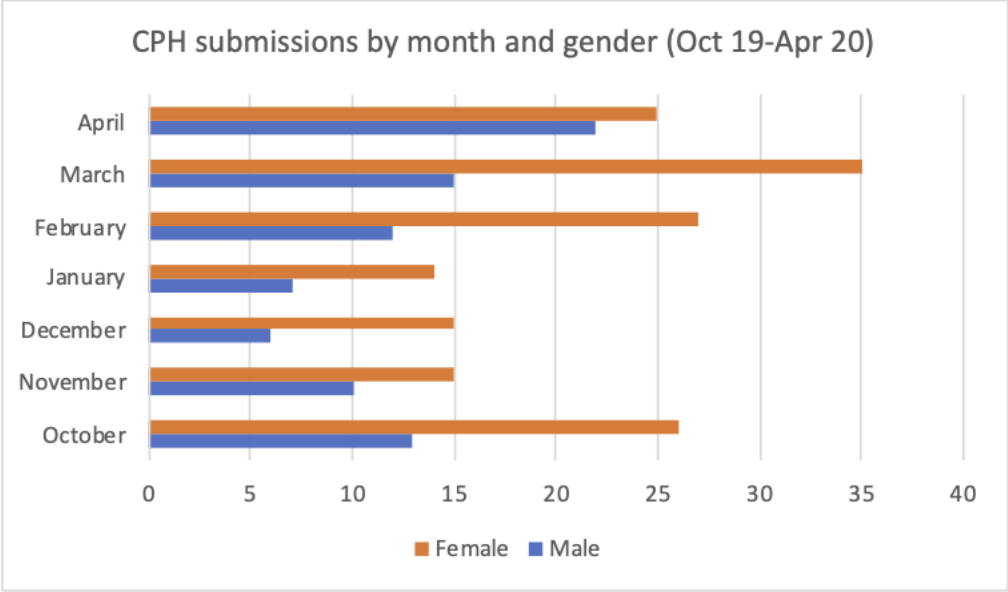


Figure 1.

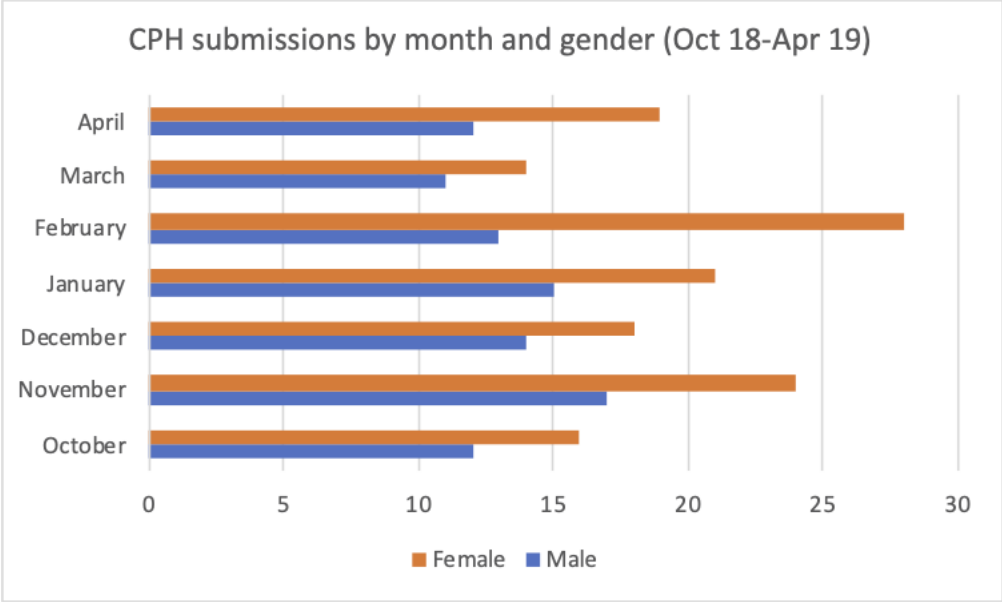


Figure 2.

In sum, it has been suggested that the coronavirus has ‘broken the mould’ of traditional publishing (Kupferschmidt 2020; see also Lew 2020). It is far too early to assess that claim, but it has certainly made visible much of the often-hidden divisions of labour, inequalities and structural deficiencies of contemporary academic publishing. Beyond the ways in which pandemic publication has foregrounded the extent to which ‘legitimate’ corporate publishers control access to critical

knowledge (Lew 2020), it also highlights their reliance on the ostensible quality control provided by peer review, along with the bottlenecks such controls create in publication – unlike preprint servers, which have been legitimised for their speed and agility as a result of the coronavirus. It has raised questions about who, globally and locally, has time to devote to thinking, reflecting and writing, and who has the academic capital necessary to convert that work into ‘outputs’ that matter. But it is too early to assess what impacts the coronavirus will have on those inequalities in scholarly knowledge production. There are possibilities in the current moment, especially if scholarly publishing changes radically as a result of the virus. There are also concerns, if the pandemic serves to further entrench unequal access to the means of academic production. In much the same way that we still have little sense of how the immediate social, economic and political transformations engendered by the virus will ultimately play out, given that the data on who is writing what, and with what effects, are currently so limited, what this ultimately means remains yet another uncertainty.

References

Adams, V., Burke, N. J., & Whitmarsh, I. (2014). Slow research: Thoughts for a movement in Global health. *Medical Anthropology*, 33(3), 179–197.

Fitzpatrick, K. (2011). *Planned Obsolescence: Publishing, Technology, and the Future of the Academy*. New York: New York University Press.

Flaherty, C. (2020). No room of one’s own. *Inside Higher Education*, April 21. Retrieved from <https://www.insidehighered.com/news/2020/04/21/early-journal-submission-data-suggest-covid-19-tanking-womens-research-productivity>

Green, J. & Speed, E. (2018). Critical analysis, credibility, and the politics of publishing in an era of ‘fake news’, *Critical Public Health*, 28(2), 129-131.

Keland, K. (2020). Speed science: The risks of swiftly spreading coronavirus research. Reuters, February 19. Retrieved from <https://uk.reuters.com/article/uk-china-health-research-analysis/speed-science-the-risks-of-swiftly-spreading-coronavirus-research-idUKKBN20D22M>

Kitchener, C. (2020). Women academics seem to be submitting fewer papers during coronavirus. 'Never seen anything like it,' says one editor. *The Lily*, April 24. Retrieved from <https://www.thelily.com/women-academics-seem-to-be-submitting-fewer-papers-during-coronavirus-never-seen-anything-like-it-says-one-editor/>

Kupferschmidt, K. (2020). 'A completely new culture of doing research.' Coronavirus outbreak changes how scientists communicate. *Science*, 26 February. Retrieved from <https://www.sciencemag.org/news/2020/02/completely-new-culture-doing-research-coronavirus-outbreak-changes-how-scientists>

Lew, L. (2020). Will the coronavirus kill off the 'dinosaur' world of academic publishing? *South China Morning Post*, 16 March. Retrieved from <https://www.scmp.com/news/china/article/3075431/will-coronavirus-kill-dinosaur-world-academic-publishing>

Plancikova, D., Duric, P., & O'May, F. (2020). High-income countries remain overrepresented in highly ranked public health journals: a descriptive analysis of research settings and authorship affiliations. *Critical Public Health*. doi/full/10.1080/09581596.2020.1722313

Stengers, I. (2017). *Another Science is Possible: A Manifesto for Slow Science*. Translated by S. Muecke. New York: Wiley.

Weber, B. (2020). Scientists cut peer-review corners under pressure of COVID-19 pandemic. *CBC*, April 21. Retrieved from <https://www.cbc.ca/news/canada/edmonton/scientists-covid-pandemic-research-misinformation-1.5539997>

Xing, W., Hejblum, G., Leung, G. M., & Valleron, A-J. (2010). Anatomy of the epidemiological literature on the 2003 SARS outbreak in Hong Kong and Toronto: A time-stratified review. *PLoS Medicine*, 7(5), e1000272.