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EDITORIAL

Critical analysis, credibility, and the politics of publishing in an era of 'Fake news'

Academic publishing is a growth industry, with around 2.5 million English language articles published each year (Ware and Mabe 2015). Truth (2012) described a "publication tsunami that is now an exponential wave". The effects of this tsunami are well rehearsed: the enormous pressure on peer review processes; reduction in the time researchers have to read individual outputs; and, perhaps most commented on, the growth of a commercial market of fee-for-publication based journals which lack the usual bulwarks of scientific credibility such as academic editors or robust peer review processes. This growth of outputs is one outcome of the increasing commodification of knowledge, whereby researchers face relentless incentives to salami-slice their findings, and must rush to publish. In health research, this has, arguably, contributed to a damaging over-production of trivial findings that do not hold up to replication or the test of time: Schoenfeld and Ioannidis (2013), for instance, found that 80% of common ingredients from cookbook recipes were the subject of at least one published study reporting on associations with cancer. In an age of information overload, anxieties about how to judge the credibility of evidence come to the fore, for academic outputs as much as journalism and other sources.

One response to this surfeit has been to leap to defend traditional scholarly publishing from the potential damage from so called 'predatory' publishers, who risk eroding scientific standards and the (perceived) integrity of academic research (see Clarke and Smith 2015). Yet this condemnation of the growth of pay-to-publish 'predatory' journals can also point to a protection of vested interest from already established publishing houses. So which is it? This tension offers an opportunity for us, as

scholars, to critically interrogate the world of publishing as socially producing scientific findings, rather than simply providing a window to those findings. 'Predatory' journals are derided for competing against established journals, whilst the established ones largely enjoy the fruits of unpaid academic labour to generate their profits. How are academic standards, and the credibility of research to produce sound and valid knowledge, to be maintained in an era of post-truth politics, and by extension, post-truth publishing?

Critical scholarship is, perhaps inevitably, frequently caught up in the cross-fire between defenders of academic standards from various camps. Papers that question established 'hierarchies of credibility' (Becker 1966) are likely to be contentious, and in an era of heightened anxiety about the trustworthiness of expert sources of information, the cultural trope of 'fake news' can describe any outputs the reader disagrees with. When research critically addresses well-funded, profitable industries such as tobacco, alcohol or food, there is inevitably some push-back. A paper published in this issue (Sacks, Swinburn, Cameron, & Ruskin, 2018) is illustrative: it generated significantly more interest than is usual when it was published online, including thousands of downloads on the first days of publication, considerable social media interest and some robustly critical pieces appearing soon afterwards on blogs. The gist of the criticism was that the paper was insufficiently scientific: that language was too emotive for a research paper; and that the inferences drawn from the data were unwarranted. These criticisms have created the context for this editorial.

In responding to criticisms of 'poor science', the critical scholar has two options. One would be to batten down the hatches, retreating to the established practices of traditional scholarly approaches: more extensive peer review; demanding higher standards of evidence for arguments; perhaps become more cautious of publishing papers that are likely to be subjected to similar critique. In essence, to engage in the many rituals that delineate the boundaries between 'science' and 'non-science' so that the findings are seen to be firmly 'scientific'.

This is an attractive position: after all, in making contentious arguments, the burden of proof should perhaps be higher than when merely confirming the status quo. However, there are very good reasons why critical scholars should not jump too quickly, or uncritically, into the 'defence of science' camp.

First, the rather febrile 'post-truth' discourse has at times under-played the politics of knowledge economies (Speed and Mannion, 2017) which make some kinds of information easier to put into the world than others. A key example is the structural inequalities which systematically favour English speaking, first world scholars, and constrain the access scholars in the global south to privileged forms of dissemination. To publish in high-level, established journals requires not just useful or interesting findings, but also language skills, cultural and stylistic capital and, increasingly, financial resources (Bezuidenhout, Leonelli, Kelly & Rappert 2016). That scholars in many parts of the world are turning to emerging journals to publish their work is hardly surprising: as Truth (2012) notes there are unpleasant "racist innuendos about 'rackets' based 'mainly' in the Global South ... or appealing largely to scholars working there, often under extreme economic hardship." (Truth 2012). Denigrating emerging forms of publishing to defend 'standards' in traditional outlets can be seen, in a critical lens, as a form of cultural imperialism. We must consider more carefully who is making claims about what kinds of knowledge. Many people outside of the academic context are incredulous when they are appraised of the academic publishing model, and there are clearly vested interests in determining 'valid' forms of knowledge.

Second, amidst allegations of post-truth, a key question is what damage is done by the proliferation of outputs and risk of 'poor' science being published? Talk of post-truth speaks to a golden age of truth, where scientific research was accepted without question. It was never thus (see Gilbert and Mulkay 1994). On such topics as cancer-causing foodstuffs, the public are seemingly adept at sifting through endless findings of risks: a routine scepticism accompanies much public debate about the latest findings from epidemiological studies, rather than any hyper-anxiety (May, Elliott and Crabb

2017). There is little evidence that the 'important' findings are lost amidst the fluff: rather there appears to be a level of discernment on the part of the expert, and the non-expert alike – scientists are not necessarily now, nor have ever been, the main arbiters of truth.

Similarly, there is as little evidence of harm to scholars. Bell (2017) points to the elements of parody in much of the so-called 'predatory' academic conference and journal practices: overblown greetings, absurd honorifics ('Esteemed Professor'), and spurious links between the expertise of invited authors and the topic of the journal. As she argues, the numerous requests most of us receive for journal submissions or to join editorial boards are largely a source of humour. The damage (time wasted) is relatively trivial. But as parody, the effects of are instructive. They bring into sharp relief the rituals of traditional academia: the status hierarchies, the lure of a conference, the authority of an editorial board, and the collegial recognition of peer review. They remind us that such rituals symbolise scientific rigour but of course do not, and cannot, constitute scientific rigour. As just one example, the fallibility of peer review is endlessly revealed through well-publicised fake submissions, (see Sokal, 1996); no amount of peer review can ever guarantee that a study was well conducted or is likely to be in the interests of the public health (see Wakefield et al. 1998).

There is a clear need for the possibility of critique to continue, regardless of the potential fallibility of the process. If we not accept the need for alternative voices, and alternative knowledges, there is a danger that the vested interests will continue to dominate the fields of academic research, by funding research programmes, and centres and professorial chairs and so forth. If the price of unsettling this hegemonic dominance is the publication of research which problematises these standards, then it is a price worth paying. The alternative price would be to accept that 'hard-science' is objective, value-free and removed from the influence of vested-interests, and anyone with more than a passing interest in the politics of science, will know that this is a far harder truth to accept.

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