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The importance of authors ensuring referencing and page proofs are correct

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Given the importance of correct referencing for tracing ideas and data in the literature and for proper attribution of the contributions of others, I was surprised to read that errors in referencing in published papers are frequent and may be approaching 25% in the general field of environmental science (Lopresti 2010). Most serious are the cases where the reference supporting a claim does not actually make the statement attributed to it, disseminating misinformation (Wright and Armstrong 2008; Todd et al. 2010). Also serious are cases where an author has copied a citation and reference from another source rather than consulting the original, not realising that the source had made a referencing error or incorrect interpretation of the thrust of the paper. This has led to high citations for papers that do not exist (Dubin 2004), an example that delights those who despise the modern obsession with citation rates. Then there are cases that are just plain irritating when readers cannot locate a reference because it is missing or incorrect. Omitting a reference is easy if the entire paper is not checked thoroughly; references in captions of tables and figures are notorious for not appearing in reference lists. Bibliographic packages may help reduce errors, but they are not infallible and authors should manually check that every citation in the text, including captions, appears correctly in the reference list and vice versa. In addition, authors must check to see every citation and reference is given in the format of the particular journal.

Although the frequency of errors was news to me, it is common knowledge to the editors of major databases. As recently as 2011, Scopus would not index books or book chapters other than those in a named series because, amongst other difficulties, the diversity of citation styles often made it difficult to decide exactly what the author was citing. The online content guide explaining this policy has passed away like so much other 'e-phemera', but I did once reference the point (Calver *et al.* 2013).

To illustrate the scale of the problem, consider Tony Underwood's book *Experiments in ecology: their logical design and interpretation using analysis of variance* (Underwood 1997). Log in to Scopus and run a search with 'underwood' set as author and 'experiments in ecology' set as source title. Scopus will return 'No documents were found', in keeping with the policy of not including books in the database when this book was published. However, clicking the link 'View secondary documents' on the results page will reveal any citations to the book by

documents that are in Scopus. When I did this on 4 July 2015, there were 21 separate entries revealed in secondary documents, of which 20 appear to be to the book. The separate entries illustrate the diversity of citations authors have made, some giving a wrong year of publication, others altering the order of the author's initials, others attempting to cite only a chapter (probably correct for their purposes and actually helpful to readers), some running the publisher's details into the title, and so on. As far as I can tell, 2839 citations appear to have it right, with the second highest scoring version with 725 citations. The other variants attracted between 1 and 7 citations each. It is not an inspiring indication of authors' capacity to cite correctly. Since August 2013 Scopus has changed its policy and is seeking to include far more books and even book chapters (Dyas 2014). Past history suggests, though, that because of errors in citations significant numbers of records will still be assigned to secondary documents because they don't match the core record in the database.

Lest Web of Science users turn smug, a similar search can be done there. One needs to choose the 'Core Collection' within Web of Science and then select the 'Cited Reference Search' option. Underwood's book returns nine variants, with the best receiving 649 citations and the others between 1 and 19. Google Scholar users have a simpler life, because opening 'advanced search', entering 'underwood' in the author box and 'experiments in ecology' in the box called 'with all of the words' retrieves one hit (albeit subsuming seven versions) with 4558 citations. Thus authors interested in bragging over their citations may well find further fuel by extending their search to secondary documents in Scopus, a Cited Reference Search within Web of Science, or using Google Scholar.

Editors and copy editors, if not reviewers, are increasingly vigilant to ensure that every citation in text has a matching reference in the reference list and that references do not miss volume or page numbers, but it is impractical to check every citation for full accuracy (not least because even the databases themselves have a surprising number of incorrect entries – see Leydesdorff (2008). Certainly, one of my smaller jobs as editor is to check *Pacific Conservation Biology* entries in the databases after each issue is published and to request corrections if a paper is incorrect in any detail). Reviewers may catch a wrong reference used to support a point in a paper, but they cannot be expected to have an encyclopaedic knowledge of the

literature. Ultimately, the responsibility for correct citations lies with authors and the only way to ensure citation accuracy is to consult the original publication, both for the correct citation details and accurate attribution of what was actually written.

This brings me to the importance of checking page proofs. They are not, as some seem to believe, an opportunity for rewriting substantial sections of text now that those pesky reviewers won't have a chance to comment again. Instead, they are genuinely the last opportunity for authors to correct errors before a paper is published and to update references if, for example, an 'in press' citation has graduated to having a year, volume number and page numbers. Proofs should be checked with great care, including tables, figure legends, appendices and references. Copy editors are human and spell checkers literalists, so beware the strange modifications that may creep into a paper when it is laid out for publication. Symbols and equations are especially fraught with danger because of potential problems when the manuscript file is translated into layout software. They demand thorough checking.

Generally, if proof corrections are minor, authors return proofs and there is no further correspondence. However, if corrections are complex, an editor may request a second round of proofs. Authors can also request this if they are concerned about the extent of corrections. Of course, a second round of proofs should be checked as thoroughly as the first.

There is a widespread misapprehension that if a mistake is discovered after a paper has been published online but before the print version is released, it will still be possible to replace the online version with a corrected one. Some believe that even if the hard copy is published it is 'better' to update the online version if a mistake is discovered. This is incorrect. Once the online version is released, it becomes the document of record and cannot be altered. Any error, no matter how trivial or how major, must stand and the only option is to publish a separate erratum. Perhaps one should forgive the

'baffalo' for 'buffalo' in the title of Pandey and Pathak (1966) given that English was not the authors' native language. In other cases, the careless risk being immortalised for the wrong reason: 'Their publication is highly skewed ... or, as one commentator carelessly but aptly puts it, 'screwed' (Macdonald and Kam 2011; p.469).

References

- Calver, M.C., Beatty, S.J., Bryant, K.A., Dickman, C.R., Ebner, B.C., and Morgan, D.L. (2013). Users beware: implications of database errors when assessing the individual research records of ecologists and conservation biologists. *Pacific Conservation Biology* 19, 320–330.
- Dubin, D. (2004). The most influential paper Gerard Salton never wrote. Library Trends 52, 748–764.
- Dyas, E. (2014). Scopus content update: Books Expansion Project. Available at: http://blog.scopus.com/posts/scopus-content-update-books-expansionproject [accessed 14 August 2015].
- Leydesdorff, L. (2008). Caveats for the use of citation indicators in research and journal evaluations. *Journal of the American Society for Information Science and Technology* **59**, 278–287. doi:10.1002/ASI.20743
- Lopresti, R. (2010). Citation accuracy in environmental science journals. Scientometrics 85, 647–655. doi:10.1007/S11192-010-0293-6
- Macdonald, S., and Kam, J. (2011). The skewed few: People and papers of quality in management studies. *Organization* 18, 467–475. doi:10.1177/ 1350508411403533
- Pandey, R., and Pathak, R. C. (1966). Agar diffusion studies on the species specificity of cow & baffalo bones. *Indian Journal of Experimental Biology* **4**, 20–22.
- Todd, P. A., Guest, J. R., Lu, J., and Chou, L. M. (2010). One in four citations in marine biology papers is inappropriate. *Marine Ecology Progress Series* 408, 299–303. doi:10.3354/MEPS08587
- Underwood, A. J. (1997). Experiments in ecology: their logical design and interpretation using analysis of variance. (Cambridge University Press: Cambridge)
- Wright, M., and Armstrong, J. S. (2008). The ombudsman: verification of citations: Fawlty towers of knowledge? *Interfaces* 38, 125–139. doi:10.1287/INTE.1070.0317