

What is the nature of a conflict of interest in a scientific publication?

To the Editor: The use, misuse and, sometimes, failure to recognise conflict of interest (CoI) is a growing problem in medical publications.^[1] The critique by Harcombe and Noakes^[2] published in the December 2016 *SAMJ*, purporting to find many weaknesses in the so-called 'Universities of Stellenbosch/Cape Town low-carbohydrate review'^[3] is somewhat disturbing, not specifically because of the content of their critique, to which the authors of the systematic review have replied, but because of how Harcombe and Noakes have recruited questions of bias and implied CoI to support their views.

Harcombe and Noakes imply bias on the part of the authors of the original systematic review by suggesting it is a 'reasonable question' to ask 'what is the chance that ... all the errors ... disadvantaged the low-CHO [carbohydrate] diet ... when many of the authors ... are on public record as being vigorously opposed to lower- or low-CHO diets and those who promote such eating plans.' Indeed, their 'Opinion' title goes further by suggesting there might have been 'mischief.' Does going on public record opposing or promoting a scientific position mean anything with regard to the likely validity of the findings of a subsequent peer-reviewed paper? If so, the same arguments could be made about Harcombe and Noakes, who have been far more public in their advocacy for a particular interpretation of the low-CHO diet question. Should we read any bias into their analysis simply because they have invested so much time and effort in claiming benefits for a low-CHO diet? Clearly, Harcombe and Noakes would argue that it would be rather unscientific to take such a position.

The claim that scientists who have held a particular position in a public debate are likely to be biased in any future engagement on that issue is one of a number of strategies used by corporations to discredit scientists whose research has found that corporate products or activities are health-harming.^[4] These industry arguments posit that because a particular scientist has previously held a public position on a scientific finding of public health importance, they have a CoI no different to that of a scientist employed by an industry with financial interests in the outcome of a research investigation into their product or activity. I have personally experienced such arguments in engaging with industry-employed scientists in the field of pesticide hazards.^[5] Using this argument, industry interests seek to neutralise science that produces findings critical of its operations by widening the scope of CoI so unreasonably as to include simply holding a public opinion. In that construction, because everyone has an opinion, everyone must have a CoI, so CoI becomes irrelevant for assessing the validity of a study.

Yet the CoI declared by Harcombe and Noakes appears quite limited. Listed are a number of statements pertaining to financial interests (or non-interests of the authors). But strangely, nowhere in the declaration is it mentioned that Prof. Noakes is facing a disciplinary hearing by the Health Professions Council of South Africa in which the validity of his claims regarding the low-CHO diet is relevant to the question of his professional behaviour. No matter what one believes about whether the charges are groundless or justified, it is undeniable that a systematic review that produces evidence that contradicts his public claims is obviously highly damaging to his case, and a published critique of the systematic review would be of direct help to defend himself at the hearing. Yet this interest is not mentioned at all in the declaration.

CoI in the context of publication needs to be understood not as a matter of holding strong opinions, but as a situation in which an individual's interests diverge from their scientific responsibilities such that they may be seen to achieve unusual personal advantage from the publication of the article.^[6] The World Health Organization

defines CoI as occurring when the 'ability to exercise judgement in one role is impaired by his or her obligations in another role or by the existence of competing interests,' which could 'create a risk of a tendency towards bias in favour of one interest over another or that the individual would not fulfil his duties impartially.'^[7] This could take the form of a financial or material advantage, as most commonly framed by CoI statements, but also includes non-financial interest – including the arena of litigatory or regulatory advantages. Just as corporations try to generate pseudoscience that they can advance in defending themselves from claims in court, individuals who might benefit in a litigatory context from a particular publication are also in a position of CoI. Readers need to know that when they interpret a particular set of findings emerging from a publication.

CoI statements should not be used to discount results of a particular paper, but to give readers the opportunity to understand how CoI may have been present in the interpretation and to 'judge the paper in a more informative way.'^[8]

Managing CoI in publications is not easy, and deciding what constitutes a non-financial CoI is not always obvious. For example, different sources cite academic commitments, personal relationships or favours, political or religious beliefs, relationships to the journal editor or institutional affiliations as non-financial conflicts of interest.^[6,7,9,10] The International Committee of Medical Journal Editors' form for disclosure of potential CoIs lists a very broadly inclusive frame of 'other relationships or activities that readers could perceive to have influenced, or that give the appearance of potentially influencing, what you wrote in the submitted work.'^[11] However, a recent survey of 117 'core' clinical journals noted that non-financial CoI criteria used by journals were most commonly issues related to 'personal relationship,' 'professional relationships' and 'academic associations,' and that 'personal opinion' and authorship of original studies or editorials on the same subject were regarded as constituting CoI in only three journals (less than 5% of all responding journals).^[12]

This signals the difficulties in managing CoI in health scientific publications. But unless we make a start by reflecting carefully on what it is, what it is not and how it should be handled, we risk allowing the notion to be recruited for partisan reasons in contentious debates, and subordinating science to vested interests. With major public health policies looming in South Africa, such as legislation on alcohol advertising, the National Health Insurance, regulation of e-cigarettes and the adoption of sugar-sweetened beverage taxes, we can anticipate intense lobbying by vested interests to shape public opinion as to what really is the best evidence. We desperately need clear CoI provisions unambiguously executed to ensure that vested interests are not allowed to use our journals to benefit some interests at the expense of science.

L London

*School of Public Health and Family Medicine, Faculty of Health Sciences,
University of Cape Town, South Africa
leslie.london@uct.ac.za*

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