

# Making Sense of Non-Financial Competing Interests

The *PLoS Medicine* Editors

Imagine you're a peer reviewer who's received a request to referee a paper. The paper reports the results of a study using cell lines derived from an aborted fetus as a diagnostic tool in identifying certain viral infections. You are also a member of a religious organization morally opposed to fetal cell research. In your review, you raise questions about the study's validity and methodology that might undermine the paper's chance of publication.

Imagine you're an editor and you receive a paper from the scientist who supervised your postdoctoral fellowship. It's been a couple of years since you left his lab, but he has supported your career and you have warm feelings toward him; plus you still join your former lab mates occasionally at their monthly pub night. You select sympathetic reviewers and you fight hard for the paper at the editorial meeting.

These two scenarios reflect true ones; and each provides an example of how a personal interest might conflict with your responsibility to ensure the integrity of the publication process. Are such non-financial competing interests of less concern than commercial interests in the publication of research? Not if they disrupt honest reporting, fair review, and transparent publication.

Non-financial competing interests (sometimes called "private interests") can be personal, political, academic, ideological, or religious. Like financial interests, they can influence professional judgment. Much as we'd like to believe that the reporting and evaluation of research are always objective, there is substantial evidence to the contrary [1]. Like all human activity, academic research and scientific publishing are inherently subjective, imperfect, and prone to bias, corruption, and self-interest. Indeed, because professional affinities and rivalries, nepotism, scientific or

technological competition, religious beliefs, and political or ideological views are often the fuels for our passions and for our careers, private competing interests are perhaps even more potent than financial ones.

Furthermore, the very nature of academic and editorial work ensures that none of us are immune. Expertise in itself presents a kind of conflict of interest. Ask one of the top malarial researchers to declare her competing interests when reviewing a transmission modeling paper and she may say, "I am a direct competitor. Who could review this paper who was not?"

But how detrimental are private interests to the publication process? And what kind of guidance is out there to make sense of non-financial competing interests?

## Like commercial interests, non-financial competing interests can influence professional judgment.

Taking a tour through the archives of COPE, the Committee on Publication Ethics (an advisory service for editors), reveals many cases of undeclared and problematic competing interests, and many of these go beyond the financial (<http://www.publicationethics.org.uk/>). Harvey Marcovitch, chair of COPE, notes that half of the conflict of interest cases brought by editors and publishers to the last COPE Forum for advice involved non-financial interests (personal communication). But he also says that he isn't yet convinced that bad publication behavior arising from non-financial competing interests is on the increase.

It would be fair to say, however, that awareness of the existence and impact of non-financial competing interests

remains tiny relative to our awareness of financial bias. Studies continue to show that many if not most authors have some sort of financial stake in their publications, that these are often not declared, and that having a financial interest in research affects not only an author's interpretation and conclusions, but the very design and execution of studies [2–4]. But no such evidence base exists for private interests. Because more is known about the impacts of financial interests, they have been easier for journals to define and to regulate.

But it's time to start taking non-financial competing interests more seriously. As with all competing interests, what's in dispute is not that they exist, but how to manage them. The responsibility of journals and the wider research communities is to safeguard the credibility of the scientific and editorial processes. Three things are needed to start making sense of non-financial competing interests.

### First, Disclosure

Everyone has competing interests; financial or private, or both. The main problem with competing interests is nondisclosure [5]. As with all competing interests, it is not possible to reliably judge our own biases. Instead, declaring them allows others to make informed judgments about whether the competing interests are relevant or not.

**Citation:** The *PLoS Medicine* Editors (2008) Making sense of non-financial competing interests. *PLoS Med* 5(9): e199. doi:10.1371/journal.pmed.0050199

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**Abbreviations:** COPE, Committee on Publication Ethics; WAME, World Association of Medical Editors

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It's necessary to establish a standard by which authors, reviewers, and editors are required to disclose whether they have non-financial interests that (1) might influence their reporting or review of the paper and/or (2) would negatively or positively be influenced by the publication of the paper. These interests would include unpaid board, governmental, or committee memberships; political or religious views; and personal relationships such as friendships or family relations, as well as mentoring and adversarial professional interactions. For example, authors should declare if they serve on the editorial board of the journal to which they are submitting or if they have acted as an expert witness in relevant legal proceedings. Reviewers should be expected to declare if they have held grants, co-authored papers, or worked in the same institution with the authors of the study they are reviewing.

Establishing such a standard is by no means easy. The *BMJ* abandoned attempts to require declarations of non-financial competing interests (it now simply encourages disclosure) because the definitions were disputed and the policy unworkable [6]. Neither *JAMA*, *Nature Medicine*, *The New England Journal of Medicine*, nor *Science* require disclosure of private interests. A recent discussion on the listserv of the World Association of Medical Editors (WAME), whose editorial policy committee (of which JC is a member) is currently updating its conflict of interest policy, affirms how difficult it is to define and regulate private interests. In the end, because WAME members felt that non-financial conflicts were so nebulous and unquantifiable, WAME decided that the policy should remain focused on financial interests.

## Second, More Policy Development

Nevertheless, it is possible and, we believe, necessary to encourage openness in addressing some of the clearer sources of non-financial bias. Journals can't police non-financial competing interests any more than they can police commercial interests. But they can develop clear and explicit policies that outline definitions of non-financial conflicts of interests and expectations for author, reviewer, and editorial behavior. PLoS has a

comprehensive competing interest policy (<http://journals.plos.org/plosmedicine/competing.php>) that builds upon those of other organizations such as the Council of Science Editors ([http://www.councilscienceeditors.org/editorial\\_policies/policies\\_endorsement.cfm](http://www.councilscienceeditors.org/editorial_policies/policies_endorsement.cfm)), the International Committee of Medical Journal Editors (<http://www.icmje.org/#conflicts>), and WAME (<http://www.wame.org/resources/policies#fundres>). Our policy states that no decision on papers submitted to PLoS journals will be made until the competing interests—financial, personal, and professional—of all authors are declared, and that we will publish all relevant positive and negative statements of competing interests. Reviewers are required to declare any interests that might interfere with their objective assessment of a manuscript, and these are considered by the editors in determining the suitability of the reviewer.

Editors are by no means above these standards of best practice. *PLoS Medicine*, along with a very small number of other medical journals such as the *BMJ* [7], posts the competing interests of its editors in the interest of full disclosure ([http://journals.plos.org/plosmedicine/editors\\_interests.php](http://journals.plos.org/plosmedicine/editors_interests.php)), and this seems a reasonable community standard for all journals. The PLoS policy also requires that individual editors recuse themselves from deliberations about papers authored by friends, colleagues, or adversaries [8].

## Third, More Research

One impediment to good policy in this area is a lack of evidence. The development and implementation of explicit policies on non-financial competing interests will clearly benefit from being based upon strong evidence of the extent, nature, and impact of private interests. Although the evidence base on commercial influences on the scientific and editorial enterprises continues to mount, very little research has tackled non-financial competing interests.

There are a few notable exceptions. In a systematic review, Luborsky and colleagues found that a researcher's allegiance to a given school of thought exerted a bias on the study design

and outcomes of psychotherapy research comparable to that which has been documented for financial interests [9]. Examining the editorial process, Goldsmith and colleagues reviewed 228 consecutive manuscripts submitted to the *Journal of Investigative Dermatology* in 2003 [10] and found the odds of acceptance to be two times higher for manuscripts from which authors had excluded reviewers, compared to those whose authors had not done so. Quoted in *Science* [11], Goldsmith said "Excluding reviewers ends up being very, very important. People know their assassins." Similarly, separate studies by Sara Schroter [12] and Liz Wager [13] support the idea that reviewers favorably biased toward the authors are more likely to recommend acceptance and less likely to advocate rejection than the (presumably) more objective editor-selected reviewers.

These examples are intriguing, but many questions remain. Is it fair to assume editor-identified reviewers are more objective than author-suggested ones? Is it reasonable to prohibit a reviewer from refereeing the paper of his ex-wife, but allow him to review those of his ex-sister-in-law? What is the appropriate time period for excluding a reviewer on the basis of co-authorship or working in the same institution—one year, two years, five? Can a government employee report on the findings of her department's research any more objectively than a pharmaceutical company employee reports his industry-funded work? Do religious views exert a more powerful effect than political ones? Who should judge editors' competing interests? Is disclosure a panacea, or can it perversely provide a license to present more biased assertions [1]? And in specialized fields, isn't almost everyone a friend, colleague, or competitor?

Despite the messy and imprecise nature of private interests, researchers and editors must persist in establishing a better understanding of their extent and impact. Any assumption that non-financial competing interests are less common or influential than financial incentives is probably misguided. It's accepted that political interference in science is dangerous, that governments and funders do not make decisions on the basis of

science alone, and that intellectual and professional commitments often lead to strong personal views. When it comes to making sense of non-financial competing interests, why shouldn't we be interested? ■

## Acknowledgments

We thank John Ioannidis, Richard Smith, and Liz Wager for helpful discussions on this topic.

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