

# How Do We Bring Authorship Out of the Bedroom?

A recent leader of science in the United States compared authorship assignment to sex and intimated that both procedures should be kept private. This attitude is likely to be prevalent and will make progress in the question of authorship difficult.

One day I asked the author of what seems to be the very first empirical investigation of authorship in any science<sup>1</sup> why it was published in such an unusual place, the *Journal Supplement Abstract Service Catalog of Selected Documents in Psychology*. It turned out that his article had been rejected twice by a leading psychology journal. In rejecting the article the first time, the editor, an extremely prominent figure in the scientific community, stated that decisions about authorship, like those about sex in previous eras, should remain intimate rather than being matters of discussion. When the article was rejected a second time, a referee quipped that all the survey respondents should be listed as coauthors, with their names arranged according to the respondents' distance from Peoria.

Should authorship be treated like sex? Should an investigator of authorship have to find out exactly how far from Peoria his survey respondents live before his manuscript can be published?

Current data suggest that authorship might benefit from some external scrutiny.

Flanagin and others<sup>2</sup> found that 19% of manuscripts in six medical journals had honorary authors and 11% had ghost authors. There was no difference in honorary authorship between small-circulation journals and the prestigious high-circulation journals *Annals of Internal Medicine*, the *Journal of the American Medical Association*, and the *New England Journal of Medicine*.

The *Lancet* recently set an example by

publishing descriptions of the contributions of each author. Using these descriptions, Yank and Rennie found that 44% of contributors in the byline did not fulfill even a lenient version of the International Committee of Medical Journal Editors (ICMJE) criteria for authorship,<sup>3</sup> although they noted that they did not necessarily

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agree with the latter.<sup>4</sup>

Sciences other than the medical ones have been studied less. I found that, in physics, authorship is not well defined and authorship guidelines are weak and not well marketed. Editors of physics journals do not seem to include authorship standards in their instructions for authors, although the American Physical Society (APS) has ethical guidelines (APS Guidelines for Professional Conduct, [www.aps.org/statements/91.8.html](http://www.aps.org/statements/91.8.html)), that include a one-sentence authorship standard: "Authorship should be limited to those who have made a significant contribution to the concept, design, execution and interpretation of the research study."

In 70% to 75% of relationships of supervisors and junior physicists, authorship criteria are not discussed. If the junior physicist has a coauthor, there is a 17% chance that the coauthorship is inappropriate, a 14% chance that the supervisor is an inappropriate author (he or she is an author on 92% of the junior physicist's papers), but only a 1% chance that the junior scientist herself or himself is the inappropriate author. Inappropriate authorship seems to

flow upward.<sup>5</sup>

Keeping authorship issues "intimate" is likely to hurt junior scientists. They are vulnerable to intellectual exploitation and have little recourse if it occurs.

The CSE Task Force on Authorship report<sup>6</sup> and the authorship statement of the ICMJE<sup>3</sup> are good steps in the direction of trying to bring the authorship issue "out of the bedroom".

In this part of the authorship equation, physics is nowhere close. To my knowledge, no organization in physics has issued a report on authorship similar to the one of the CSE task force. The APS Publications Oversight Committee has declined to study the issue, and the APS Committee on Ethics and Discrimination "did not reach a conclusion." Israel Jacobs, a member of the original committee that created the current ethical guidelines, said the one sentence on authorship is a watered-down version of what was proposed. But even this single sentence does not appear in the guidelines of any physics journal, as far as I know. Judy Franz, the APS executive officer, wrote me that she will try to give the statement "more Web prominence".

Even in the medical sciences, we have only half the equation solved. The prevalence of, for example, honorary authorship, may or may not have been affected by the new guidelines. The other half of our job is to convince the noneditorial leaders of the scientific community of the importance of ethical authorship. Only then will our vision become a reality.

This job will not be easy. Judy Franz told me that allocation of authorship was not a problem and stated that a study of authorship issues was "nobody's highest priority with the exception of postdocs", who she said "tend sometimes to be an underclass" and therefore would not have the political clout needed to bring up the issue.

A Nobel prize winner and former president of APS told me there must be more inappropriate authorship in the biomedical sciences than in physics. That is not an uncommon attitude among physicists, and it conveniently allows its proponents to dismiss concerns about ethical authorship in their own community. 🗨️

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