

# THE CHRONICLE OF HIGHER EDUCATION

## Commentary

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### Let's Clarify Authorship on Scientific Papers

*By Cecile Janssens*

Imagine that one of your colleagues or friends publishes a new book and mentions you on the cover as the co-author. Without letting you know. You walk into a bookstore and see "your" book. Would you feel honored or embarrassed? Would you consider it your book? Would you take the credit if people complimented you? Would you take the criticism if people said it was mediocre?

This summer I discovered my third publication that I did not write. I am a scientist, and I was updating my curriculum vitae for a grant application when I checked the publication database of the U.S. National Library of Medicine for the correct page numbers of one of my publications. The search on my name retrieved an article that I had never seen before, on a topic that is not in my area of expertise.

I contacted the lead author and learned that I had been acknowledged because the study was based on data collected by a consortium of which I was once a member. I was reassured that I am not responsible for the contents of the paper because I am credited as a collaborator, not as an author.

The distinction between author and collaborator rang a bell. When research projects require the contribution of many researchers at different institutes to collect data, diagnose patients' ailments, or do the lab work, those researchers cannot all be held responsible for the specific question and analysis of the article. In these instances, an article is written by a few authors and one or more "group authors," such as the [arcOGEN Consortium](#) or the [Honey Bee Genome Sequencing Consortium](#). The contributing researchers are acknowledged at the bottom of the article, and listed in the publication database as [collaborators](#).

Deciding who is author or collaborator is not arbitrary. The International Committee of Medical Journal Editors has [specified criteria](#) for the roles and responsibilities of authors and collaborators: Authors should have a substantial contribution in the study, draft or revise the article for important intellectual content, give final approval of the version to be published, and agree to be accountable for all aspects of the work. Contributors who meet fewer than four criteria should not be listed as authors, but they can be acknowledged as collaborators.

Of the three articles that I had published without knowing it, I was an author on one and collaborator on two. How could that happen?

The articles had, respectively, tens of contributors, hundreds of them, and over a thousand. Not surprisingly, with so many researchers involved, it can be difficult to keep track of who did what to justify authorship. Some contributed months of hands-on laboratory work, while others had a novel insight that changed the interpretation of the results. Some contributed to multiple articles published by the collaboration, while others, like me, contributed a specific analysis to only one or more articles and did nothing for the rest.

Weighing the various contributions to decide what justifies authorship can be subjective and arbitrary, too, and taking people's names off the list may do more harm than good to collaboration at large. Selecting a few as authors implies demoting the rest as collaborators, a status that has less impact on indicators of scientific productivity. In longstanding collaborations, removing or demoting contributors may have repercussions for one's co-authorship on the future articles of others. These are decisions that lead authors do not wish to make if they don't have to.

And often they don't have to. Most journals ask authors to disclose their contributions, but they are not verified, and journals rarely question how, say, 20 or so researchers can write a paper together. The contributions of collaborators seldom need to be disclosed. Journals ask the lead author only to certify that the

contributors have been informed and agree to be acknowledged—which, apparently, is not always done.

These "phantom" authorship and collaborator listings are not a mere nuisance; they undermine basic scientific values of accuracy, accountability, and integrity. They devalue the work of those who did contribute to the study and give a misleading impression of study credibility.

Collaborators may not be responsible for the entire article, but they may be considered accountable for the parts of the project that fall within the scope of their expertise. Acknowledging them suggests that their specific expertise was available for the project, where it was not, and it suggests that they endorse the study's data, analyses, and conclusions, which they may not.

Phantom authorships are not entirely new. In 2004 the prestigious journal *Nature Materials* [raised concerns](#) about authorship without authorization, and in 2012 an editorial in *Science* [called for a halt](#) in the granting of "honorary" authorships to senior colleagues or prominent experts who had made no significant contribution to the work.

A recent editorial in *Nature* [proposed a digital taxonomy](#) to identify and document contributions in large-scale collaborations. This would have given me the opportunity to withdraw my phantom authorships, but it may not be sufficient to realign authorship and credit. Digital documentation will work when researchers dare to "correct" one another's claimed contributions and screen them against the authorship criteria. And that is not a given. After all, the lack of transparency is not an administrative issue but a social issue.

There is a strong incentive for contributors to favor authorship—as the medical-journal editors' group says, it "confers credit and has important academic, social, and financial implications." Numbers of publications and citations are important indicators of scientific impact in grant applications and promotions.

Therefore, to effectively improve transparency and accountability

and restore the value of authorship, the credits of authorship in large-scale collaborations need to be reviewed and refined. *Nature Materials* has requested that "academic societies and educational institutions should take a leading role in establishing and propagating a code of fair practice." That is indeed where it has to start. With a code and a digital administration—but most of all with a critical attitude.

*Cecile Janssens is a professor of translational epidemiology at Emory University's Rollins School of Public Health.*

11 Comments

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**millerdb** · 8 hours ago

I know of a situation in which a secretary received coauthorship for having typed the manuscript (back in the days when such staff members were called "secretaries" and used typewriters). That was her only contribution to the research. I know of another situation involving ape-language research in which two of the apes were listed as coauthors. Cute, but, let's get real.

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**Raymond J Ritchie** · 8 hours ago

I am an increasingly rare animal. Half of my papers are single authored and I am the first author on most of the others. I am a single author on papers because I did all the work, first author on most others because I did most of the work.

I have minor authorship where I have helped a student write a paper or I have helped a colleague. I am very cautious about it. You have to have a good idea of how trustworthy the first author is before lending your name..

The big problem with nominal authorship and gratuitous authorship is that you are asking for trouble. You are likely to end up with your name on scientific fraud or have your name on material that is just plain rubbish. Sooner or later you are going to get bitten on the bum.

Like your credit card, never allow your name to be used by anyone.

Beware of Prof Bullfrog with their name on hundreds of papers. I have more than once asked colleagues about a paper of theirs. They knew nothing about it - that is just plain wrong.

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**graddirector** · 6 hours ago

I think this article is discussing two, largely unrelated phenomena. The first is the large increase in multiple (often multiple-multiple) author papers. This is largely driven by a large increase in the amount of data/expectations to cover every conceivable alternate possibility, necessary to publish a paper in a top end life science/biomedical journal. It has gotten to the point where it is just not possible for one or a small handful of researchers to do all of this work themselves in a reasonable amount of time. This is exacerbated by the need to address the problem from multiple sides (one paper may have genetics, developmental biology, structural biochemistry and cell biology investigations which are different enough that no small group can cover all of the needed expertise). This is further encouraged by folks saying science needs to be interdisciplinary. This means that multiple research teams (each with a panel of contributors). need to be credited in

an author list.

The second issue is having someone publish a paper with your name on it without telling you. I just had this happen for the first time where a former postdoc published some of their data in an obscure, foreign language journal and put my name on it without telling me because they did not think it was important to do so

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**Raymond J Ritchie** → [graddirector](#) · 5 hours ago

I think it is important for there to be a real connection between the content of a paper and who claims responsibility for it. I think that is being lost. Connection between authors and papers can lead to problems over even short time spans of a few years. I had to chase up my co-authors recently for a promotion application. I had to get every one to countersign their contribution to all of my papers in the past 5 years. It took nearly 3 months. I had to track down people on 4 continents. Some simply could not be found and so in such cases I had to omit the paper from the list. One had had a nervous breakdown and I had to wait until he had recovered enough to sign on.

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**Gopher63** → [Raymond J Ritchie](#) · 4 hours ago

I've noticed it's become quite common for the principal author to put their name last instead of first as was common in earlier. Until the Science Citation Index and other citation services included all authors as citable determining an author's body of work was difficult and tedious. I also get the impression that an increasing number of journals give guidelines and criteria about authorship. Most also indicate which author is the corresponding author (to whom all correspondence should be directed).

I believe that the use of the Science Citation Index is still confounded by shortening the author's name to surname initials. This is definitely the practice for Google Scholar which can drive one mad.

Of course, patents are still another matter with a variety of practices on who is named as an inventor (the inventor's name is required on US patents even if the patent is reassigned). From my all too brief days in the lab, I should be an inventor on several more patents than the three that I am on.

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**Gopher63** → [graddirector](#) · 4 hours ago

Multiple authorship is very common in high energy physics for good reasons.

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**manoflancha** · 6 hours ago

Authorship and co-authorship have been ripe issues in my profession for many years. Ultimately, most people make their own rules, since no standard exists. For myself and former students, we agreed that the first author will always be the first to write the first draft of a paper. We also agreed that we will include no one as an author who has not or will not even read and proof the joint paper. Such people can be placed in the Acknowledgement section of a paper.

Other colleagues have adopted a policy that the supervising Professor's name always goes last, regardless of how much or how little they contributed. I believe this has been the traditional manner of handling the order of authorship, but it takes away meritocracy as part of the joint effort. I prefer my own rationale.

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**mbelvadi** · 5 hours ago

The ICMJE definition seems to have conflated the concepts of "author of the



The ICMBE definition seems to have conflated the concepts of "author of the paper" with "researcher of the data". To the rest of the world, "author" means a person who actually wrote the words in the paper. Or to put it another way, if it's impossible for your words to be plagiarized by someone else, then you aren't an author. The concept of an "honorary author" is beyond ridiculous. Clearly this entire segment of scholarly communication has gotten badly distorted (presumably by money and prestige factors). I hope P&T committees understand this when evaluating applications that include publication lists.

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**Gopher63** → mbelvadi · 4 hours ago

Hopefully, even the Germans have gotten away from the "Herr Professor Doctor \_\_\_\_" getting his name (and first listed) on every publication coming out of his Department.

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**Raymond J Ritchie** → Gopher63 · 8 minutes ago

Overly optimistic my friend. Gratuitous authorship is rapidly getting worse not better. That is one reason why I am very cautious about who I show my manuscripts to despite my limitations in writing and grammar. Never lose control of your manuscript.

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**graddirector** → mbelvadi · 3 hours ago

I would disagree that an author needs to have written the words of the paper. If they provided critical data (ie a figure) and had intellectual input into creating that data (not just blindly doing a technical procedure), they have significantly contributed to the paper and should be authors. While the written portion of the paper is important, it is quite distinct from the intellectual development of the ideas and the sometimes very challenging data collection side. That is different than an "honorary author" who is put on a paper because they are a department chair etc who had nothing to do with the work. I do agree though that anyone on the author list needs to read the paper carefully and give input into the writing though, even if it is just the development of the ideas. Excluding folks from author credit who did the work but did not write the paper is theft.....

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