

Editorial: Coauthor! Coauthor!

The dilemma of attribution is not just limited to paradigm-shifting results [1]: researchers are always challenged by the question of authorship. Sometimes, the right people are not included in the author list, or people are added against their wishes or without their knowledge, or, in fields where author order is not systematized, the order does not reflect each author's contributions. These practices can lead to systematic inequity, especially for early career investigators.

APS recently aligned its seventeen journals under a common set of [Policies and Practices](#) that includes a [new section on authorship](#). Even as guidelines are being expanded and clarified they cannot address all contingencies and thus their application will always be situationally dependent and open to interpretation. Unlike in the literary world, a coauthor on a scientific paper does not need to have actually done the writing. For instance, does the use of equipment in a researcher's laboratory or time on their supercluster give them grounds for coauthorship?

These are not new questions. As the Committee on Publication Ethics (COPE) writes, “What is clear is that authorship is a fluid, evolving concept and as it evolves so will the ethical challenges associated with it” [2]. Indeed, when discussing this Editorial—both of us from a condensed matter background—it emerged that we had different views on which contributions merit authorship.

Given this ambiguity, we recommend using communication, consistency, objectivity, and good judgment as guiding principles. When you start a research project, discuss the criteria for authorship with your collaborators. As you move from project to project, be consistent: if sample preparation is usually a reason for authorship on your papers, make it so for all papers. The [Contributor Role Taxonomy \(CRediT\)](#) scheme is an excellent guide to follow when making these deliberations, even if you do not choose to include an Author Contribution Statement.

Finally, we have two seemingly contradictory pieces of advice: Be both disciplined and generous. Pressure to publish from administrators, funding bodies, and colleagues can push researchers down a slippery slope of including authors in an effort to improve the chances of journal acceptance or funding opportunities. Indeed, because of the ever growing reliance on metrics, the question of “who contributed” becomes *the prisoner's dilemma* [3]: we will always be tempted to “defect” and improve our chances by gaming the author list even when we know that if everybody did that it would seriously dilute the meaning of authorship. On the opposite side of the fulcrum, omission of coauthors is likewise problematic. While the deliberate omission of coauthors is an unequivocal ethical violation, omission by ignorance happens all the time. Indeed, even the omitted may not think they are entitled to coauthorship! Again, this self-doubt is notably problematic for junior scientists. Here the onus rests on senior authors: do not merely acknowledge “help with figures” or “help with the equipment.” Instead, ask about the contribution.

Mentors must bring everyone into the discussion and not rely solely on group hierarchy to make the decisions. Be as generous with people who contributed to the results as possible, but explain to would-be coauthors that being on the paper makes them accountable for the work—that is the *discipline*. Are they invested in the result? Are they willing to defend the contents—even if only restricted to their particular section, measurement, or calculation? These issues are often given little discussion: at every level, the community must be vigilant while also relying upon the good intentions of all who participate.

R. D. K. instigated this missive. R. D. K. and D. U. contributed to the writing of the original draft. We thank all the APS editors for their input and suggestions.

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- [1] D. Politzer, The dilemma of attribution, *Rev. Mod. Phys.* **77**, 851 (2005).
- [2] COPE Council, COPE Discussion Document: Authorship (2019), <https://publicationethics.org/node/34946>.
- [3] <https://plato.stanford.edu/entries/prisoner-dilemma/>, last accessed April 4, 2024.