

Authorship Credit Attribution Practices for Biomedical Publications: Problems with Increasingly Collaborative and Interdisciplinary Research

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OVERVIEW

Observation 1: Publication becoming primary means of advancing career and receiving funding for biomedical research¹

Observation 2: Scientific inquiry no longer confined to discrete, independent areas of study²

Result: Pressure to publish and rise in interdisciplinary, multi-author studies creates challenges for attributing authorship credit

CHALLENGES

- 1) **Attribution Challenge:** What contributions should we recognize for attribution as an author?
- 2) **Position Challenge:** How should authorship be attributed for multi-author, biomedical publications?
- 3) **Interdisciplinary Challenge:** How should we reconcile different authorship norms associated with contributions from distinct fields?

AUTHORSHIP ATTRIBUTION

Common problems of attribution:

- 1) **Ghost authorship:** author contributes significantly but not attributed *ex. Pharmaceutical researchers conduct study but publish under name of more influential scientist*¹⁴
- 2) **Honorary authorship:** author attributed did not significantly contribute *ex. Benefits incentivize author to include names of non-contributors in hope of likewise being named in their publications*
- 3) **Pressured authorship:** principle researcher or one in authority position pressures subordinate for unwarranted attribution *ex. Explicit pressure from someone in position to advance career prompts junior researcher into unethical publication practices*

Attribution practices:

- Many biomedical journals provide no guidance on authorship. Those that do often follow ICMJE (“Vancouver”) or similar guidelines³
- ICMJE guidelines state author should:⁴
 - contribute to design, acquire data or analyze data; and
 - draft or revise intellectual content; and
 - approve final version

Alternative to ICMJE guidelines:

- Commentators suggest contributorship model: authors add statements describing contribution⁵
- Could reduce incidence of unethical practices, as unjustified attribution would require more blatant deception^{1,5}

Legal recourse?

- Canadian *Copyright Act*⁶ does not define “author”, but courts have historically recognized writer rather than contributor of ideas⁷
- Courts in other jurisdictions have recognized authors as contributors of ideas^{8,9,10}

AUTHOR POSITIONING

- First author more likely to be associated with name of study; those outside first, second, and last position not given much credit¹¹
- Alternatives include listing by relative contributions;¹² publishing under name of professional groups¹³

INTERDISCIPLINARY PUBLICATIONS

Observation: Different scholarly disciplines, institutions, journals, and geo-political regions have unique authorship norms

Challenges for collaboration:

- Guidance documents generally assume manuscripts are either empirical or conceptual – little guidance for interdisciplinary work involving for example biomedical, social science and humanities experts³
- Single-author attribution norm for philosophy publications could disincentivize input from scientists; multi-author publication in biomedical journal may provide little benefit to philosophers¹

DISCUSSION

- 1) Increasingly interdisciplinary and collaborative nature of scientific inquiry necessitates movement towards universal, international guidelines for authorship
- 2) Explicit contributorship models are less easily manipulated and are preferable to criteria-based models like ICMJE
- 3) Canadian courts should follow other jurisdictions and begin recognizing authorship rights for contributors of intellectual effort to scientific publications

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