

Irresponsible Coauthorship

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At the Conference on Ethics and Policy in Scientific Publications sponsored by the Council of Biology Editors in Washington, DC, October 1988, leaders in the field of scientific publications discussed the problem of irresponsible coauthorship (unearned listing as an author). After 3 days of analysis, the basic question went unanswered; that is, "Why is an investigator who is otherwise impeccably trustworthy, someone who would never even remotely consider falsifying research data, willing to participate in deceit by allowing his name to be used as a coauthor, when he made no genuine contribution to the paper?"

A coauthor is any author of a publication other than the one listed first. As every reader of medical journals knows, the number of coauthors listed per paper has burgeoned. Chew [1] calculated that the *AJR* and *Radiology* have experienced an exponential increase in the number of authorships with only a linear increase in the number of papers published since 1950. Some of the increase in the number of authors per article is warranted in view of the greater complexity of the average report now compared with 1950 and because of the greater opportunity today to collect material from a number of sources. However, assignment of coauthorship has obviously been abused; coauthorship no longer guarantees that the listed person truly has made a substantive contribution to the manuscript.

Harmful Effects of Irresponsible Coauthorship

At the Washington Conference on Ethics, Edward Huth, editor of the *Annals of Internal Medicine*, emphasized that authorship is the currency of academic medicine. As such, it

is the bargaining chip used for promotion, salary increases, grant funding, research time, laboratory space, and other rewards of academia. Gratuitous coauthorship debases the value of this currency. Moreover, it dilutes the satisfaction that comes from being responsible for a contribution to the literature. Arnold Relman, editor of the *New England Journal of Medicine*, said, "Irresponsible coauthorship vitiates the dignity of authorship and raises concern for intellectual honesty." Such authorship is fraud, which, like a stain, can extend to other transgressions such as falsification of data.

Coauthorship implies personal responsibility for the content of the paper. Hence, gratuitous coauthorship makes coauthors vulnerable to charges of fraud, if the content of the paper is subsequently shown to have been falsified. It is no defense for the coauthor to claim, "I am not guilty of fraud. I really had nothing to do with the paper." The coauthor is, indeed, guilty — unwittingly perhaps — but guilty nevertheless.

In other circumstances, by assigning coauthorship irresponsibly, the first author gives the coauthor the legal right to steal his work. Coauthors are free to use the work in any way they see fit and to claim it as their own without recognition of the first author. The first author may have no defense when he sees that his work has been republished by a gratuitous coauthor without credit to the person who truly did the work.

Definition of Responsible Coauthorship

Responsible coauthorship requires the coauthor to have made a substantial and specific intellectual contribution to the work. It indicates active participation with contribution of

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thought and effort, and it guarantees that the coauthor has the ability to defend the results and that he assumes responsibility for them. It is different from names that appear in an acknowledgment, which serves to recognize lesser contributions.

At the Conference on Ethics, Vernon Houk, assistant surgeon general, reviewed the qualifications for coauthorship. To be listed as a coauthor, the person must have done one or more of the following: provided the idea (not just suggested that the first author work on a certain problem), designed the protocol, played a leadership role in the acquisition of the data, executed the study, analyzed the data, reviewed the literature, and/or written and revised the manuscript.

It is inappropriate to assign coauthorship as a courtesy (honorary coauthorship), as a gift (gratuitous coauthorship), or solely because the person is a member of a "team" (cronyism). Likewise, coauthorship is not indicated if the individual's only contribution was technical, financial, or editorial or if his sole involvement was having his name on the grant that supported the work. Coauthorship is not warranted if the person served only as a department or laboratory manager, chief of the service, or chairman of the department. Someone whose sole contribution was to refer the cases included in the investigation or to carry out and interpret routine studies on these patients does not deserve to be listed as a coauthor. Recognition and appreciation for these various services should be given in an acknowledgment.

Role of Editors in Preventing Irresponsible Coauthorship

Huth believes that editors may decide either to do nothing and let others assume responsibility for the problem or to act as lawgivers and gatekeepers. The first choice is for those who believe it is more important for editors to be an author's colleague than his policeman, assuming he cannot be both at the same time. In this case (the present situation with most journals), the editor simply trusts authors to act ethically, just as the editor trusts that data presented by the authors have been collected and analyzed honestly.

Editors can attack the problem by serving as lawgivers; that is, they can provide guidelines to define ethical coauthorship and require coauthors to certify that they truly qualify. The *AJR* requires that all authors sign a form guaranteeing that they "have made substantive and specific intellectual contributions to the article and assume public responsibility for its content." (*AJR Guidelines for Authors*, published monthly in the *Journal*.) Even so, the editor still must act on trust, having no way of knowing if the coauthors' signatures are forged or if they reflect the true situation.

Editors can act as gatekeepers and limit the number of coauthors allowed per paper. This would prevent such ab-

surdities as having 10 coauthors of a single case report. The problem could be solved also by listing the specific contribution of each coauthor next to his name on the title page. Relman recommends categories such as "with the assistance of" or "in collaboration with." Constance Conrad of Emory University suggests that credits be given as they are in motion pictures and television programs. The idea is to list specific contributions; for example, coauthors could be identified as fund raiser, study design adviser, or manuscript editor. Another solution would be to use print size in proportion to the contribution. The first author's name would appear in the largest type.

Role of the Universities in Preventing Unethical Coauthorship

The best solution to the problem would be to devalue the currency; that is, to decrease the value of coauthorship. This will occur when department chairmen and promotions committees ignore the *number* of papers published by an individual when considering promotion and the allocation of resources [2]. Only the candidate's best papers should be considered.

Department chairmen and senior faculty should establish and circulate guidelines that define ethical coauthorship for department members. Most importantly, they should eschew honorary and gift coauthorship for themselves and frown on it for others.

Conclusion

The question, "Why do certain people who are otherwise completely honest and ethical allow themselves to be involved with the cheating that is inherent in irresponsible coauthorship?", has no simple answer. The notions that most people do it and it is considered acceptable by many are part of the answer. These are the same excuses used by people who would not steal money, but who cheat on their income tax.

The purpose of the Washington Ethics Conference and the intent of this editorial are to help solve the problem of irresponsible coauthorship by focusing attention on it. If specific guidelines to distinguish responsible from irresponsible coauthorship are available and if irresponsible coauthorship is called by its true name — fraud — authors, nearly all of whom pride themselves on being honest, are much less likely to be a party to it.

REFERENCES

1. Chew FS. Coauthorship in radiology journals. *AJR* 1988;150:23-26
2. Berk RN. Threats to the quality of peer-reviewed radiology journals. *AJR* 1988;150:19-21