

Discussion of “Emerging Ethical Issues in Statistical Publishing”

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Abstract: This paper is the discussion that was given at the session on Emerging Ethical Issues in Statistical Publishing. The session was organized by John Gardenier, past-chair of the ASA Committee on Professional Ethics, and it included papers by John Gardenier; Nancy Gordon; David Levy and Sandra Peart; and George Gardenier, David Resnik, and John Gardenier.

KEY WORDS: Confidentiality, Database Protection, Ethics, Misconduct, Public Use.

Introduction

Ethics is an ugly business. It makes good people become self-righteous, while those who are less good become as slick as greased tax lawyers. This corrupting tendency of ethical discussions seems paradoxical, but there is strong evidence to support it.

As an example of trusted ethicists behaving badly, I suppose that reasonable people might differ on the culpability that is now widely ascribed to Dr. Thereza Imanishi-Kari in connection with alleged fabrication of research results that were published in the journal *Cell*. But I expect that nearly everyone agrees that Dr. Margot O’Toole, the post-doctoral researcher who first raised concerns about undocumented claims, was badly served by the two ethics review boards that heard the case (one board was formed at Tufts and chaired by Dr. Wortis, the other at M.I.T. and was chaired by Dr. Eisner). Both boards separately found against Dr. O’Toole, ruling that she had acted improperly in pressing her charge. Dr. O’Toole was unable to find a research position at any university for many years thereafter.

Besides this famous case, there are other situations in which ethics review boards have seemed more concerned about the reputation of their institution than the honest execution of their office. Feder and Stewart (1988) give strong arguments that the University of Wisconsin’s review board dishonestly acquitted Dr. Hector DeLuca. And Dr. Jeffrey Williams recently was made a Fellow of the American Association for the Advancement of Science in recognition of his persistent whistleblowing on misconduct at Michigan State University, despite astonishing efforts by senior administrators to compel him to stand down (Williams, 1994). Carnegie Mellon University has been accused of a cover-up in its acquittal of all of the people involved in the Rimm Study (cf. Thomas, 1997). The University of Pittsburgh has been criticized twice; the first case concerned its famous prosecution of Dr. Henry Needleman, whose pathbreaking discoveries about lead toxicity in children was a major concern for the lead-based paint manufacturers who brought misconduct charges against him (Cordrey, 2001, Chaps. 8-11). The second concerned the University of Pittsburgh’s handling of faculty member Dr. Bernard Fisher, who was chair of the National Surgical Adjuvant Breast and

Bowel Project (NSABP) and who discovered and reported misconduct at one of the research sites, but was dismissed from his post at the behest of the Office of Research Integrity at the National Institutes for Health.

Regarding the occasional tendency to self-righteousness, this charge has been leveled at Representative Charles Dingell, former head of the House Ethics Committee. Similarly, the National Institutes of Health removed Dr. Feder and Dr. Stewart from their positions as misconduct investigators, apparently because they were seen as having become too zealous in pursuing fraud (though others argue that they were exposing improprieties at too many major grant recipients). Foreman (1988) reports both sets of accusations, and gives some background. One does not need to search hard to find other such cases.

All of these issues are complicated. Surely some people can be ethical zealots, while others are so eager to avoid any appearance of public scandal that they will contort reason and misuse authority to find decisions that insulate their institutions. But we must remember that almost every party in a misconduct trial probably believes that his or her position best serves the highest good, even if the logic for that position is obscure.

But this fair-minded balance does not imply that our institutions should stop trying to enforce sound ethical practice. Published mistakes can divert millions of research dollars, and misplaced credit or blame can ruin careers. As scientists we have a duty to prevent and neutralize misconduct, and as human beings we have the obligation to do it fairly. It is hard to prevent individuals from sometimes acting badly, so I urge us to focus on ensuring that institutions behave better.

Therefore I congratulate the ASA Committee on Professional Ethics for having successfully avoided the dual dangers of their mission. And I congratulate the authors of the four papers presented today,

as none of them seem to be either self-righteous or slick.

Publication Problems

John Gardenier's paper provides a balanced and thoughtful review of almost every aspect of ethical issues in publication. I strongly recommend it to anyone interested in a survey of this area.

My sense is that it is most important to emphasize the issues that are peculiar to statisticians. For example, one issue that is nearly unique to statisticians concerns the proper way for allocating credit when one is working in a multidisciplinary study. The researchers within a discipline often have different conventions from those used in the statistics profession; in medicine and physics it is routine to have massively coauthored papers. Also, it is too easy for outsiders to undervalue the contribution that statisticians make to a paper---I know statisticians whose work has been equated with that of a laboratory assistant.

The best answer, of course, is to spell out one's expectations in advance, and to include in the paper itself some statement about each author's contribution. But there are social barriers and issues of tradition that must be addressed, and these require all the diplomacy a statistician can muster.

Another issue for statisticians is that our publication processes tend to be much slower than those of other fields. This is an ethical issue insofar as unreasonable delay is significantly detrimental to careers, especially those of junior faculty. For many reasons, it would be good for our journals to accelerate their procedures.

Finally, there is a new frontier in electronic journals. It is possible that at some future point everyone will have the right to propose changes and revisions and extensions of a paper, and that the editors

will decide which contributions appear in the canonical text. This imagines papers as living documents, persisting and evolving long after the first author has lost interest.

Database Protection

Gardenier, Resnik, and Gardenier raise the question about what degree of security is appropriate to a scientific database.

Obviously, matters of confidentiality are important, and those have been extensively discussed in other forums. The interesting question here is whether researchers has the right to sit on their data until all the discoveries have been milked from it, or is there an ethical obligation to share the data with the world?

Clearly, at some point a researcher must allow independent scholars to check their work. Also, research is often supported by public funds, and perhaps those scientists have a special duty for early disclosure.

From a pragmatic standpoint, I doubt that we shall ever successfully compel a scientist to share data before they have gleaned it thoroughly.

Anecdotal Evidence

Levy and Peart's paper suggests that one can use anecdotal evidence in certain kinds of statistical arguments, and I grant their point, but (on technical grounds) have concerns about their method.

As an example, they discuss the racist beliefs held, for supposedly scientific reasons, by Galton and Pearson. But I think we should not be too harshly judgmental of these early statisticians. If we have come to fervently reject their views, it is only because we have adopted the standards of evidence they championed and have access

to the improved analyses that they pioneered.

Federal Ethics

Space limitations preclude a detailed discussion of Gordon's paper. It was chiefly concerned with confidentiality protections, which are well-covered in other places.

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