

Author's Commentary on "Preliminary Data"

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Preliminary Data

This case is meant to raise issues involved in determining whether scientific misconduct has been committed. Recently, a uniform definition for scientific misconduct has been proposed for all federal funding agencies. The Federal Register, October 14, 1999 (Volume 64, Number 198), pp. 55722-25. <http://onlineethics.org/reseth/misc.html>. In the current proposal, research misconduct is defined as fabrication, falsification or plagiarism in proposing, performing or reviewing research, or in reporting research results. Fabrication is making up results and recording and reporting them; falsification is manipulating research materials, equipment or processes, or changing or omitting data or results such that the research is not accurately represented in the research record; and plagiarism is the appropriation of another person's ideas, processes, results or words without giving appropriate credit, including those obtained through confidential review of others' research proposals and manuscripts. It is important to note that research misconduct does not include honest error or honest differences of opinion.

In this case study, Brighton is concerned that her data are being falsified. In contrast, Gilligan feels he is presenting the data in a favorable manner. As scientists we are influenced by our working hypotheses, but we need to be aware of the possibility of self-deception or delusion when interpreting our results. Gilligan feels that standards for presenting data vary among formats, i.e., grants, publications, etc. Undoubtedly, many scientists would agree. When writing a grant proposal, spin doctoring or salesmanship may be needed to convince the reviewers of the importance and feasibility of a project. But when does a "positive spin" become falsification of data?

According to the proposed definition of misconduct, changing and omitting data in the research record are not permitted. The research record is defined as the record of data or results that embody the facts resulting from scientific inquiry, and

includes, for example, laboratory records, both physical and electronic, research proposals, progress reports, abstracts, theses, oral presentations, internal reports and journal articles. This list suggests that high standards must be applied in all formats for data recording/presenting.

The second set of questions is designed to generate discussion of institutional and government policies for reporting misconduct. Reporting scientific misconduct is obviously a sticky situation for all scientists; however, students and post-docs are in a difficult, tenuous position when they feel their adviser/mentor is falsifying or misinterpreting data. Consult institutional policies for reporting misconduct before presenting this case study. Additionally, consult the following websites for government misconduct regulations: <http://www.ori.dhhs.gov>; <http://www.nsf.gov/oig/resmisreg.pdf>; <http://ori.hhs.gov/misconduct/index.shtml>.