

CLOSEOUT FOR M95090037

This case came to OIG on September 8, 1995, when we received an electronic mail message from the first complainant.¹ He alleged that the subjects² had misappropriated ideas and conclusions from a manuscript³ (the other scientists' manuscript/paper) that other scientists had submitted for publication and had incorporated those ideas and conclusions in a paper of their own (the subjects' paper).⁴ A second complainant⁵ submitted additional, related complaints to OIG alleging that the subjects had failed to adequately acknowledge the contributions of others to the subjects' research.

The research groups with which the subjects and the other scientists were associated were engaged in an ongoing scientific dispute over the interpretation of certain experimental observations. This dispute, which also involved larger differences in scientific perspectives, had occasioned considerable interpersonal animosity prior to the events that generated the allegations of misconduct in science that the complainants brought to OIG. Two general hypotheses had been proposed in the literature to explain the observations and, although each group acknowledged that the issue was not definitively resolved, each favored a different hypothesis. The other scientists' manuscript purported to resolve the dispute in favor of the other scientists' preferred interpretation. The subjects' paper reached essentially the same conclusion, but did so using the subjects' own data, much of it previously published, and the subjects' own analytical approach.

¹ Dr. [REDACTED], then at [REDACTED] University.

² Dr. [REDACTED] of the [REDACTED] (the first subject), Ms. [REDACTED] of the [REDACTED] (the second subject), Dr. [REDACTED] of the [REDACTED] (the third subject), and Dr. [REDACTED] of the [REDACTED] (the fourth subject).

³ The manuscript was published as "[REDACTED]". It was authored by [REDACTED], [REDACTED], and [REDACTED] and appeared in [REDACTED], 1994, pages [REDACTED].

⁴ The paper is entitled "[REDACTED]". It appeared in the [REDACTED] Volume [REDACTED], pages [REDACTED] (1995). The authors acknowledge support from NSF grant [REDACTED], entitled "[REDACTED]". The third and fourth subjects are the PIs for this award.

⁵ Dr. [REDACTED] of the [REDACTED].

The first complainant alleged that there were various indications that the subjects were aware of the other scientists' manuscript and had made unacknowledged use of it. Among these were (1) documents indicating that the editor of a journal to which the other scientists' manuscript had been submitted had sent the subjects a copy of the manuscript to inform the subjects that the journal planned to publish a paper critical of the subjects' work, (2) the presence in the subjects' paper of an analytical detail that was allegedly previously absent in the subjects' work, present in the other scientists' manuscript, and not intrinsically related to the subjects' data, and (3) evidence that the previously unpublished data analyses in the subjects' paper could have been performed between the time the subjects received the manuscript and the time they submitted their paper for publication.

The subjects had appended a "note added in proof" to their paper that characterized the other scientists' paper as appearing while the subjects' paper was under review and containing similar experimental results. The note gives no indication that the subjects had seen the other scientists' paper while the subjects' paper was in preparation or that the subjects made use of the other scientists' paper in preparing their own.

OIG determined that an investigation into the complainants' allegations was warranted.⁶ Because it appeared that the timing of the subjects' experimental research, analytic work, and manuscript preparation were potentially important in determining whether misconduct had occurred, OIG decided that it was necessary to secure the subjects' laboratory records in order to make certain that the subjects had no opportunity to alter these records before or during the investigation. We informed the awardee university⁷ (the university) of the allegations, and the university asked OIG to suspend independent investigative activity so that it could complete its own investigation. The university secured relevant records on its own campus, and it arranged with the institution to which the first subject had moved⁸ to secure records in the first subject's possession. In accordance with its own procedures for handling allegations of misconduct in science, the awardee university first performed an inquiry and concluded that the allegations of misconduct lacked substance and that no misconduct had occurred. In reviewing the inquiry report, OIG noted that the committee had reached its conclusions without considering certain relevant evidence, including the subjects' laboratory records.

OIG informed the university that OIG continued to believe that a thorough investigation was necessary, and the university decided to appoint an investigation committee to consider the matter *de novo*. The investigation committee included a technical expert from outside the

⁶ The complainants also made numerous allegations of poor citation practices and uncollegial behavior by members of the subjects' research group. Insofar as OIG concluded, during its own inquiry, that none of these alleged transgressions was sufficiently serious to be considered misconduct in science, OIG did not refer these allegations to the university's investigation committee. In one instance, such an allegation was made after we had referred the case to the university for investigation. In that instance, the university inquiry committee concluded that the allegation lacked substance, and OIG concurred.

⁷ The [REDACTED] was the awardee for NSF grant [REDACTED]

⁸ The [REDACTED]

matter *de novo*. The investigation committee included a technical expert from outside the university. The committee collected the evidence and concluded that the subjects did not commit misconduct. OIG's review of the investigation report indicated that the committee did not address certain significant evidence, contained in an appendix to its report, that seemed to contradict one of the report's major factual conclusions. In response to OIG's query, the committee clarified its account of the events in light of this evidence and reaffirmed its view that no misconduct had occurred.

On the basis of the evidence collected by the university, OIG concluded that

- before the subjects received the other scientists' manuscript, the subjects had done the experimental work that, in their view, was essential to interpreting the observations whose significance was in dispute;
- this work, and not the evidence or conclusions in the other scientists' manuscript, caused the subjects to conclude that the interpretation they espoused in their paper was warranted;
- not all of the subjects had realized the implications of this experimental work until the receipt of the other scientists' manuscript spurred them to subject their own data to closer examination and analysis; and
- the subjects' paper was written after they received the other scientists' paper.

The university reached similar conclusions.

OIG accepted the university's conclusion that the only significant analytic work done after receipt of the other scientists' manuscript was a logical outgrowth of the subjects' prior experimental work and caused the subjects to take "a step away from" the specific interpretive schema proposed by the other scientists. OIG also accepted the university's conclusion that the subjects did not use the other scientists' manuscript except as a spur to prompt them to accelerate the process of fully analyzing their data and preparing it for publication.

The university concluded that, in view of its factual findings, the subjects had not misrepresented the use they made of the other scientists' manuscript. The university further concluded that, while the subjects might have made clear that their paper was written after they had received the other scientists' manuscript, their failure to do so could not be considered a sufficiently serious transgression to be misconduct in science.⁹

OIG presented an account of its factual conclusions in this case to a scientist knowledgeable about the ethical norms governing the community in which the subjects and the other scientists work. This scientist concurred with the university that the subjects had not committed misconduct in science.

⁹ Information in the investigation report indicates that decisions about how to reference the other scientists' paper were made by the third and fourth subjects. The role of the second subject, who was the most junior member of the research team, was limited to re-running earlier experiments to put the subjects' data into publishable form. There is no evidence that the second subject did anything that could be considered improper, let alone anything that might be considered misconduct in science.

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On the basis of the judgments of the university and the other scientist and OIG's own familiarity with the ethical standards of the scientific community, OIG concluded that the subjects had not committed misconduct.

This investigation is closed and no further action will be taken on this case.

cc: Integrity, IG