

## CLOSEOUT FOR M92070026

This case was brought to the attention of OIG by [REDACTED], a program officer in the [REDACTED] Program in the Directorate [REDACTED], on [REDACTED]. The program officer informed OIG that he had found a remarkable similarity in two proposals he had recently received, [REDACTED] and [REDACTED]. He suspected one was plagiarized from the other but could not tell which was the source proposal. The first proposal, submitted by [REDACTED] the first subject, contained a theoretical treatment and a practical application of an [REDACTED] problem. The second proposal, submitted by [REDACTED], the second and third subjects respectively, contained the same theoretical treatment of the problem. All three individuals were members of the [REDACTED] at [REDACTED] University.

OIG compared the two proposals and found that they had been submitted within one month of each other. The two proposals had 26 sections of text in common. This text included material in the introduction, statement of the problem, proposed work, and the current state of knowledge. The sections varied in length from a single sentence to whole paragraphs. Neither proposal indicated a source for the similar or virtually identical material. Neither indicated that permission had been sought and obtained for use of the material. The absence of this information gave rise to the allegation of plagiarism.

OIG wrote to each of the subjects separately and confidentially requested information about the allegation of plagiarism. Upon receiving our letter, the third subject showed it to the institution's vice provost, who informed OIG that he was the institutional official responsible for misconduct inquiries and investigations. He considered his review of the materials accompanying our letter an inquiry that found sufficient substance to the allegation to proceed with an investigation. Although OIG had not formally deferred the allegation to the institution for inquiry and any possible investigation, OIG decided to await the outcome of the institution's investigation before proceeding further. The vice provost was asked to forward materials relating to the institution's investigation to OIG.

The Vice Provost convened an investigating committee that reviewed the proposals and a limited amount of supporting material, and interviewed the subjects and other individuals. Their conclusions were based principally on the statements of the first and second subjects. Two sequential drafts of the report were circulated to the involved parties before the final report, which incorporated received comments, was issued.

### THE INVESTIGATING COMMITTEE'S FINAL REPORT

The committee found that, following encouragement from several individuals at the institution, subjects one and two had met and had decided to collaborate on the submission of a Research Initiation Award (RIA) proposal. The second subject was unaware that the

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submission deadline was within 15 days. The two individuals met briefly several times to discuss the proposal and the drafts of the separate sections they were developing independently. Five days before the deadline the second subject provided the first subject with a hard copy of her text. One day before the deadline the second subject withdrew from the collaboration because of personal differences with the first subject. At that time the second subject requested and received her most recent draft back from the first subject.

Over the next 24 hours the first subject rewrote parts of the proposal to reflect the absence of his collaborator and submitted a proposal to NSF that contained the text written by the second subject. The second subject met and developed a working relationship with the third subject, who agreed to serve as a co-investigator on the second subject's proposal because the second subject did not have institutional standing that permitted her to submit NSF proposals independently. The NSF proposal submitted by these two individuals contained the material drafted by the second subject in her collaborative arrangement with the first subject. The third subject was unaware of the conditions under which this material had been written.

After establishing the chronology, the problem for the investigating committee became one of determining the extent to which any one individual in a working relationship with others exclusively owns material developed by that person in response to the group goals. In this case the committee was unable to review written agreements or draft documents, other than the proposals, that would aid their assessment. They found that the first and second subject "were honest and forthright in their answers . . . but their answers drew heavily upon supposition about the other's interpretation, and were clouded by imprecise recollection." Thus the committee relied on the conflicting oral and written testimony of the first and second subject, the professional history of these two individuals, and the committee members' personal collaborative experiences.

The committee stated:

. . . [I]t is reasonable to assume that [the first and second subject] wrote based on his/her own strengths with the intention of merging and polishing the proposal together. . . . [Over a seven day period] the two met at intervals, discussed their contributions (concentrating primarily on the writing of [the second subject]), and returned to their computers to edit their own contributions . . . It does not appear that they merged either their texts or their somewhat different philosophies into a single document while working together.

The committee found that:

[The second subject] originated the drafted material in portions numbered 1-21, that [the first and second subject] spent considerable time during [a three day period] discussing the material with each other, and that [the first subject] contributed some suggestions regarding wording and the order of the paragraphs -

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leading to the production of at least three drafts. The Committee cannot determine the exact degree of collaboration, and, as a result, cannot make a precise determination as to whether the material in question belongs to [the second subject] alone, or to [the first and second subject] jointly.

Although the committee found no evidence of a pattern of plagiarism by any of the subjects it concluded that

Although it is unclear to us how much collaboration occurred, there are implied responsibilities for any collaborative work. In our judgement, some collaboration occurred; thus the portions of the proposals cited by NSF as being similar were in fact joint property and should not have been used by either investigator without obtaining permission of the other and giving proper citation. It is also our judgement that [the first subject] viewed the cited portions as a joint effort and therefore felt he could use it. On the other hand, [the second subject] viewed the cited portions as her original wording and therefore her sole property, giving her the right to use it. It is our judgment that neither the interpretation by [the first subject] nor the interpretation by [the second subject] is proper.

With regard to the first subject the committee concluded

. . . [The first subject's] expropriation of [the second subject]'s material was inappropriate, bordering on misconduct. We feel that in his desperation he acted carelessly, ignoring intellectual property rights. It was clear that the . . . process included in his proposal were ideas developed by [the second subject] prior to their collaboration, and that he incorporated these ideas into his final proposal with little or no change from her wording.

With regard to the second and third subject, the committee concluded that:

The evidence suggesting plagiarism . . . appears to be in part a result of misunderstanding and lack of communication. We find no evidence that [the second subject] attempted to plagiarize, and we believe that [the third subject] was unaware of the existence of the earlier RIA proposal. We believe that [the second subject] acted in the belief that [the first subject] had not used in his proposal any of the text she had written. . . . We feel that [the second subject] should have discussed with [the first subject] in greater detail her intent to use ideas and text derived from their joint efforts. However, she feels that the ideas and text were entirely her own, . . . and that she was therefore entitled to use that text in its entirety with no further communication with [the first subject].

The committee concluded that the institution bore some responsibility for this situation and recommended that guidance on these matters should be provided to researchers. This

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guidance should be sensitive not only to the inexperience of young investigators but to cultural differences. It suggested that departmental committees provide mentorship for young researchers submitting their initial grants.

The committee's specific recommendations with regard to the first and second subject had some common language and some tailored to the individual. The common language stated:

We recommend that [the first/second subject] be advised that collaboration on a proposal imposes certain obligations to the co-investigator. Intellectual property of co-workers becomes the property of both investigators, and neither should use that work without the expressed permission of the other. . . . Furthermore [he/she] should be instructed that such collegiality be observed in future relationships, that in the future adequate time be allotted for independent internal review, and that no work of any colleagues or students be submitted as a part of any proposal without their expressed permission. [He/She] should likewise be instructed that scientific etiquette requires that [he/she] cite any portion of any document or discussion, that uses the ideas, phraseology, or data of another scientist or [his/her] own published work, giving full credit to the other scientist, whether it be a faculty member, external researcher, or student.

The language specifically tailored to the second subject said:

If that permission is granted, the collaboration of the other investigator must be cited. Her withdrawal from a joint proposal effort imposed an obligation to clarify the subsequent use of the text she had written as a contribution to their joint proposal.

[The second subject] should be informed that it was her responsibility to inform both [the third subject] and [the first subject] of her intent to use portions of the proposal draft that had been originally intended as a collaborative effort with [the first subject]. . . . By making these statements, we do not intend to imply that she did commit any act of plagiarism, but rather that we feel it the obligation of the university to be certain that all our young colleagues clearly understand these guidelines.

The language specifically tailored to the first subject said:

Appropriate scientific and collegial etiquette for [the first subject] would have been for him to request and receive permission from [the second subject] to include her text in his submitted proposal, giving her credit for the contribution, and to give her a copy of the completed proposal.

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### **THE VICE PROVOST'S DECISION**

The committee recommended that letters be placed in the first and second subjects' personnel files for a period of three years. After reviewing the investigation report the vice provost found that the committee had done a "thorough and fair investigation." Despite the committee's comments, he concluded that the first and second subjects had committed plagiarism because the copied materials in the two proposals did not have a citation to acknowledge their origin. Because the material was developed in a collaborative relationship "neither of them had exclusive claim to the material that emerged from their earlier collaboration." He concluded that "the misconduct in the form of plagiarism by [the first and second subject] is an isolated case arising from carelessness and lack of full understanding of proper ethics in scientific collaborations."

Separate but identical letters to the first and second subjects were signed by the institution's president and provost with the intention that they would remain in their respective personnel files for a period of three years. The letters stated that the subject was found to have committed misconduct in the form of plagiarism and concluded that the individual did not understand the concept of jointly held intellectual property stemming from a collaboration. The individual was required to allow one week for departmental review of any proposal that was prepared, and, for a period of one year, the person was requested to voluntarily disclose to any collaborator that he/she was the subject of a misconduct investigation. The third subject received a letter instructing her on her mentoring responsibilities to young scientists.

### **THE APPEALS COMMITTEE FINDING**

The second subject immediately requested and was subsequently granted an appeal hearing. With regard to the allegation she asked the appeals committee to reconsider the vice provost's finding because it was not consistent with the investigating committee's findings.

The appeals committee reviewed documents submitted by the second subject and interviewed several relevant witnesses. They concluded that the second subject's behavior

demonstrated poor communications and insufficient regard for professional etiquette and collegiality . . . but the far more serious charges . . . are not substantiated by the evidence. We strongly believe that [the second subject] did not commit scientific misconduct, and we concluded that the charge of 'plagiarism,' . . . was erroneous and inappropriate.

The president of the institution accepted the appeals committee's recommendations and informed OIG it had closed the case. With regard to the reprimand letters, the institution placed the letter in the first subject's file and did not insert a letter in the second subject's file. OIG sought additional information to understand the difference between the institution's actions following the appeals committee's decision and the investigating committee's recommendation

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that the first and second subject should receive letters of reprimand. The committee's recommendation did not take a clear position on the joint or separate ownership of the intellectual property and the institution did not explain the different treatment of the first and the second subject.

### FURTHER CLARIFICATION

The institution's president explained that he had been initially swayed by the joint intellectual property argument, but was later convinced by the statements of the appeals and investigating committees that the institution's interpretation of the investigation report was incorrect.

Prior to the appeals committee's actions the investigating committee appealed the sanction on the second subject to the provost stating that the vice provost's interpretation of plagiarism in this case was "not obvious to all scholars" and that "it would be unreasonable to suspect that [the second subject] should have been conscious of this interpretation at the time she submitted her proposal." The committee felt "that the charge of plagiarism against [the second subject] [wa]s too strong for the circumstances, and [wa]s not supported by the evidence. [The second subject] should not be held accountable under a stricter definition of plagiarism than that which is commonly understood." The committee stated that its "final report makes a clear distinction between the actions of [the first and second subject], and recommended stronger sanctions for [the first subject]."

The institution explained that the appeals committee

did not see [the second subject's] brief work done with [the first subject] as a true collaboration, where a sharing of ideas and knowledge and mutual discoveries yielded a grant proposal text that was indeed a joint intellectual property. Instead their relative contributions remained very separate and distinct and [the second subject] clearly made the greater contributions to the projected research. At the end of her brief effort to work with [the first subject], [the second subject] continued to look for funding for her individual research, without appropriating as her own any of the work of [the first subject].

In response to OIG's request for clarification the president said that:

[The second subject] did not take any material that belonged to [the first subject]. While he may have made editorial modifications in her material, it was clear which sections she had written. She used only her own sections of the joint proposal in her subsequent proposal. [The first subject], on the other hand, used not only his own material, but also her material in the proposal that he submitted. It seems clear to me (and to the two committees) that there is a very definite

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difference in these two actions. Thus, I would conclude that different findings in the two cases are appropriate.

The institution's final conclusion was that neither individual had committed misconduct in science; rather they had shown varying degrees of poor judgement and inappropriate behavior.

### **OIG'S CONCLUSION**

Collaborative relationships are unusual in that, in their formative stages, the products of the collaborators are usually distinct. As time passes these products may become the amalgam of the contributors' individual efforts. In deciding what actions constitute misconduct in science, the institution generally relies on the scientific community to establish the guidelines for what is acceptable practice. In this case the members of the two independent committees, who are also representative of diverse disciplines within the scientific community, have done their best to ascertain what is acceptable. The institution's president reversed his position about the second subject because he was persuaded by the statements from both committees. The different sanctions reflect the first and second subjects' distinct behaviors and contributions to the project and are not, as it initially appeared, a simple matter of the institution responding to the second subject's appeal while ignoring the first subject because he did not appeal.

For the institution to recommend a finding of misconduct, the incident must be considered a serious deviation from accepted practice. In this case, the first and second subject failed to attribute copied material that had some indeterminate joint intellectual property value associated with it. The institution concurred with the institution's final conclusion that the subjects' inexperience at functioning in a collaborative relationship and their honest but incorrect suppositions about each other's understanding were compounded by their difficulties with English, the time pressures, and the absence of mentoring at the institution. These factors mitigated the seriousness of their actions.

The institution concluded that none of the subjects committed misconduct in science. The final actions taken by the institution are considered to be adequate and appropriate. The institution's investigation probably served as an excellent learning experience that increased these young investigators' understanding of expected conduct within a collaborative relationship. The institution recognized its responsibility in mentoring young investigators. No further actions are required to protect NSF's interests. The institution closed this case.

cc: Staff Scientist, Deputy AIG-Oversight, AIG-Oversight, Counsel to IG, IG