

Closeout of M91050025

This case was brought to OIG on [REDACTED] 1991, by Dr. [REDACTED] Program Director for [REDACTED]. The subject in this case is Prof. [REDACTED] of the Department [REDACTED] College, who had submitted Proposal [REDACTED], " to this program in [REDACTED] 1990. The same proposal had been submitted to the Division of [REDACTED] in [REDACTED] 1990, with the title [REDACTED].

It was given the number [REDACTED]. The allegation was plagiarism, in that a section of this proposal was copied to a great extent from a published paper written by other authors, and that this was done without acknowledgement.

At its request, OIG deferred investigating this case while the institution performed its own investigation. The institution found a laxity in research practice that constituted a serious objective violation of professional standards of scholarship, but it did not find that plagiarism had been committed. It imposed several sanctions against the subject, including a prohibition from submitting proposals to federal agencies for two years.

OIG prepared and sent to the Deputy Director of NSF an investigation report recommending that the Deputy Director make a finding that the subject had committed plagiarism and take certain actions to protect the government's interest. In November 1992 the Deputy Director and the subject signed a settlement agreement that resolves this case. Copies of the OIG investigation report and the settlement agreement are attached.

[REDACTED]

MA91050025

NATIONAL SCIENCE FOUNDATION
WASHINGTON, D.C. 20550



OFFICE OF THE
DEPUTY DIRECTOR

NOV 16 1982

[REDACTED]

Re: Scientific Misconduct in Connection with
Grant Proposals Nos. [REDACTED] and [REDACTED]

Dear [REDACTED]:

The referenced grant proposals that you submitted to the National Science Foundation (NSF) included text and mathematical formulas copied without attribution from an article published by other authors. Your [REDACTED] (the "Institution"), investigated allegations that you committed 'research misconduct' and plagiarism by including this material in your grant proposals. It found you "guilty of unacceptable negligence and hence research misconduct." NSF's Office of the Inspector General (OIG) issued its own Investigation Report, concluding that you committed scientific misconduct -- specifically, plagiarism.

You responded to the OIG Investigation Report by denying any plagiarism. You argued that plagiarism requires the deliberate intent to appropriate the text or ideas of others. You then claimed that your failure to include proper citations in the grant proposals resulted from careless, not deliberate, action.

We do not find it necessary to determine whether your failure to include proper citations in your grant proposals was deliberate. Plagiarism, under NSF's misconduct regulations, does not require that level of intent. Here, the Institution found that you exhibited "a reckless disregard for appropriate procedures of scholarship," and that you "knowingly and repeatedly [engaged] in a pattern of research note-taking that, given enough time, was inevitably going to produce precisely the situation that arose with [your] NSF grant proposals." When that situation occurred, it constituted plagiarism under our regulations.

We believe the Settlement Agreement you forwarded to us imposes adequate sanctions under the circumstances, and are enclosing a fully executed copy of that Agreement for your files.

If you have any questions regarding the foregoing, please feel free to contact me.

Sincerely,

A handwritten signature in dark ink, appearing to read "Fred Bernthal", with a stylized, sweeping flourish extending from the end of the name.

Frederick M. Bernthal
Deputy Director

Enclosure

AGREEMENT

I.

Recitals

- A. Associate Professor [REDACTED] (the "PI"), of [REDACTED] (the "institution"), submitted to the National Science Foundation (NSF) grant application number [REDACTED] in March 1990, grant application number [REDACTED] in November 1990, and grant application number [REDACTED] in December 1990. The PI was listed as the sole Principal Investigator on all three grant applications.
- B. The PI included in these grant applications text [REDACTED] from an article published by other authors. In these grant applications, the PI did not give attribution to the authors of the article.
- C. Based on an investigation conducted by the institution into this matter, the institution has imposed the following sanctions on the PI:
 - 1. The PI is prohibited from submitting grant applications to NSF and all other federal funding agencies until December 19, 1993.
 - 2. The PI will be denied salary increases until June 1, 1994.
 - 3. The PI will submit copies of each of his grant applications to his department chair until December 19, 1995, for a careful review prior to submitting the application to any funding source to ensure that the PI has engaged in proper scholarly practices. In addition, the PI will certify in writing that he has recently reviewed the institution's guidelines on misconduct in science and that the grant application is free of any misconduct.
 - 4. The PI will send letters of apology to the authors of the article.

II. Representations


- A. The PI acknowledges that his inclusion in an NSF proposal of text and [REDACTED] from an article published by other authors without proper attribution is improper. The PI represents that to the best of his knowledge these are the only grant applications in which he utilized the work of another without attribution. The PI further represents that he is genuinely remorseful for failure to give proper scholarly attribution to the work of others, and that he will not do it again.
- B. At the time of his signing of this Agreement, the PI has no grant applications pending to any federal agency.
- C. At the time of his signing of this Agreement, the PI does not intend to seek to have the institution modify the sanctions imposed on him by the institution.
- D. At the time of his signing of this Agreement, the PI does not intend to seek full-time employment with any other institution.
- E. The PI has carefully read and understands all provisions of this Agreement, is fully satisfied with the terms and effects of this Agreement, and has decided to execute this Agreement of his own free will after consultation with legal counsel of his own choice.

III. Agreement

After careful evaluation, in reliance on the recitals and representations set out above and being aware of no contrary facts, the PI and NSF agree as follows:

- A. If, prior to December 19, 1993, the PI is an applicant (as principal investigator or co-principal investigator) or is among the senior, key, or supervisory personnel on an application for financial or nonfinancial assistance or benefits submitted to any federal agency, the PI will provide that agency with a copy of this Agreement along with that application.
- B. If, prior to December 19, 1993, the PI applies for full-time employment at any other institution, the PI will provide that institution with a copy of this Agreement along with that application.
- C. Until December 19, 1995, the PI will have all grant applications that are to be submitted to a federal agency reviewed by his department chair or a similar university official, in order to ensure that the PI has engaged in proper research practices. On those occasions, the PI should certify in writing that he has recently reviewed his institution's guidelines on misconduct in science, and that, to the best of his knowledge, his grant application is free of any such misconduct, and that his grant application has been reviewed as described herein. Concomitant with his submission of each grant application, the PI will send a copy of each certification to the Assistant Inspector General for Oversight in NSF's Office of Inspector General, to be placed in that office's file for this matter.
- D. If the PI fails to comply with any term of this Agreement, or if any of the recitals or representations is not true to the best of his knowledge at the time of his signing of this Agreement, he hereby agrees that such a circumstance will constitute a breach of this Agreement and thus an independent cause of so serious or compelling a nature that it will then affect the present responsibility of the PI, and will thus constitute sufficient grounds for governmentwide debarment for five years from the date of breach, pursuant to NSF's nonprocurement debarment regulation (45 C.F.R. part 620); the PI hereby waives his right to challenge such a debarment, except with regard to whether this Agreement has been breached.
- E. NSF will take no further action against the PI for his actions addressed by the institution and NSF in this matter.
- F. This Agreement contains the entire agreement between the parties regarding the above-described matter, and no oral representation, promise, or agreement by and among the parties to the settlement has been given, can be relied upon, or is of any effect whatsoever. No modification, alteration, or addendum to this Agreement shall be valid unless written and executed by both parties thereto.

- G. This Agreement terminates and settles this matter, and no party may bring any legal action regarding this matter except concerning breach of this Agreement.
- H. This Agreement will be null and void if it is not executed by the Deputy Director of NSF within ten (10) calendar days after the signing of this Agreement by the PI and his counsel.



Associate Professor

NOV 6, 1992

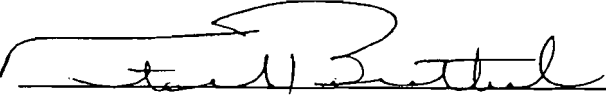
Date



Witness (Counsel for )

NOV 6, 1992

Date



Deputy Director, National Science Foundation

Nov. 16, 1992

Date

INVESTIGATION REPORT
MISCONDUCT IN SCIENCE AND ENGINEERING
BY PROF. [REDACTED]

Summary. The Office of Inspector General (OIG) has determined that Prof. [REDACTED] of [REDACTED] committed plagiarism in a grant proposal that he submitted to NSF. This conclusion is based on an investigation performed by the institution, which found misconduct, but not plagiarism. The institution's investigation report is attached, and is supplemented for the Government's purposes by this report. OIG recommends that NSF make a finding of plagiarism and impose appropriate sanctions.

Background. [REDACTED] (the subject) is an Associate Professor in the Department of [REDACTED] (the institution), [REDACTED]. In November 1990 the Division [REDACTED] received Proposal No. [REDACTED], titled "[REDACTED]", with him as sole principal investigator (PI). In December 1990, essentially the same proposal was submitted to the Division [REDACTED] under the title "[REDACTED]". It was given the number [REDACTED] and again he was sole PI.

OIG subsequently received an allegation that the section of these proposals labeled "[REDACTED]" was copied to a great extent from the published paper "[REDACTED]" by [REDACTED] and [REDACTED] in [REDACTED]. The proposals did not cite that paper, but instead implied that the ideas, including equations and wording, in that section were original with the subject.

OIG sent an inquiry letter to the subject about this allegation in July 1991, receiving a reply in August 1991 that did not seem to resolve the matter. In December 1991 OIG sent the institution a request for a formal investigation. The institution performed a preliminary inquiry, and in February 1992 the Committee on Misconduct in Research of the University Research Council was convened to conduct a full investigation. OIG received the report of that investigation from the Director of the institution's Office of Research Administration on July [REDACTED] 1992.

The investigating committee found that:

"by his own defense, [the subject] has acknowledged a laxity in research practices that constitutes a serious objective violation of professional standards of scholarship. Therefore, the Committee finds that, by following reckless research procedures that resulted in a failure to give proper scholarly attribution to a published article which was a source of ideas and wording in proposals submitted to the National Science Foundation, [the subject] is guilty of unacceptable negligence and hence of research misconduct, as defined in Section III of the university's Guidelines on Misconduct in Research." (p. 2 of investigation report)

In his July letter to OIG, the Director of Research Administration notified us that the institution had imposed the following sanctions on the subject:

1. The subject is prohibited from submitting proposals to the National Science Foundation and all other Federal agencies for a period of two years. "The two year period will begin on December [REDACTED] 1991 which is the date of your letter to me indicating that an investigation into this matter was required. We feel that the two year 'debarment' is appropriate, but that it should be made retroactive to that date because [the subject] has been debarred de facto until the matter was to be resolved under our policy."
2. The subject will be denied salary increases until June 1, 1994.
3. The subject will submit copies of all proposals to the department chair for a period of four years for a careful review to ensure that [the subject] has engaged in proper scholarly practices. In addition, he will certify in writing that he has recently reviewed the University's Guidelines on Research Misconduct and that the proposal is free of any misconduct.
4. The subject will send letters of apology to Drs. [REDACTED].

The evidence for plagiarism. The committee found a third and very similar proposal, [REDACTED] which the subject submitted in March 1990 and which also copied from the [REDACTED] paper. The committee's report finds that the subject "admits that his NSF proposals contain ideas and exact phrasing from an article to which he failed to give any attribution." (p. 1) "[The subject] concedes that he read [REDACTED], took extensive notes from it, and subsequently incorporated material from those notes into his [REDACTED] and [REDACTED] proposals." (p. 3) "By [the subject]'s own admission--buttressed by the assessment of other experts--[REDACTED] and [REDACTED] did have an original idea in their [REDACTED] article, and by his reckless disregard for proper methods of research and writing, [the subject] denied those authors the credit to which they were justly due." (p. 20) These conclusions are supported by a Correlation of Texts appended to the report, which shows that "of the thirty-four sentences in [the subject]'s section on hydration forces, roughly half are counterparts of passages in [REDACTED], including all of the section's mathematical formulas." (p. 4)

Further, the committee found sentences in the November proposal that were copied without attribution from another paper by other authors (p. 8). The subject thus showed repeated instances of plagiarism. OIG has not found it necessary to expend its scarce resources on examining his previous eight proposals to NSF for similar instances of plagiarism.

By NSF's standards, these findings are sufficient to demonstrate that plagiarism occurred, as will be explained below. The committee did not find plagiarism, however, on the grounds that the institution's "Guidelines on Misconduct in Research define plagiarism as a form of misconduct which 'is distinguished from honest error by the presence of intent to deceive'" (p. 4) "The central issue in a question of plagiarism is [the subject]'s intent." (p. 22) The committee did not find evidence for intent that it considered sufficient, and therefore it made a finding of unacceptable negligence amounting to research misconduct as quoted above.

The subject's defense. In his August 1991 letter to OIG, the subject states that "The omission of citation to the paper by [REDACTED] and [REDACTED] from the third and fourth paragraphs was clearly an oversight on my part." He claims that it was his intention to include references to it in four places in these two paragraphs of the "[REDACTED]" section.

In his testimony to the committee, the subject explained that it was his habit to take notes while reading journal articles. These notes were a mixture of material copied from the articles, references, and additions of his own. He sometimes copied material verbatim into the notes without using quotation marks or indicating the source. When he wrote proposals, he used these notes and sometimes copied from them verbatim. By that time, however, he often did not know that he was putting into the proposal material taken from the original journal articles, and he did not check on his sources before sending the proposals to NSF.

He further explained that when he took notes on the [REDACTED] article, he recorded only [REDACTED] name as the source. He cannot explain why. Then he mistook the [REDACTED] article for another written by [REDACTED] alone, and he cited only the latter in the section where he copied from [REDACTED]. He further argued that he was confused by the large number of citations in his proposal. The "idea" not cited was included with materials that were common knowledge, and not in need of citation. In March 1990, when he submitted his first proposal, he was under great personal stress. The November and December submissions were quick revisions made in response to specific referee comments, and he was not looking for citation errors.

The subject did not produce his notes in order to substantiate some of these claims. He explained to the committee that in April 1991, prior to receiving a letter from OIG about his November 1990 proposal, he moved to a new office that could not accommodate his collection of research notes and articles. He said that his chairman urged him to throw away materials that were no longer necessary for ongoing projects. He testified ambiguously that he threw out all or most of his notes, with the help of his graduate students. He provided no evidence in support of this claim.

Evaluation of subject's defense. Evaluation is complicated by the fact that the university investigation did not clear up some difficulties in this defense. For example, the subject was inconsistent in telling OIG that he intended to put the references to the [REDACTED] paper into his proposals, while he later told the committee that he did not remember that paper when he wrote the proposals. Similarly, the story of the missing notes was not adequately investigated.

Even so, the report does raise some significant doubts about the defense. On the missing notes, it remarks that the subject's "decision to discard research notes for a prospective research project still under review for funding by NSF seems rather unusual." (p. 17) It shows that the subject consulted his notes again when redrafting the November proposal and inserted new text taken verbatim from [REDACTED] and the other source, again without attribution. It also makes

telling points against the claim that the subject confused the [REDACTED] article with the [REDACTED] article.

In sum, there is patent physical evidence for plagiarism, while the defense is based on assertions about the subject's patterns of notetaking and his thoughts while taking and using his notes for which no further evidence has been offered. Even if the notes existed as described, they only illustrate the mechanism by which the offense was done. The intermediate use of notes does not affect whether plagiarism occurred.

The claim of lack of intent. The subject used his account about how he prepared and used his notes as support for the claim that the copying he did was inadvertent. The committee apparently accepted this claim. The report gives several arguments regarding his intent:

1. *The subject claimed that his copying was due to carelessness, and he in fact had a broad and long-standing pattern of carelessness and laxity in his scholarly procedures.* This argument seems to assume that carelessness and plagiarism are mutually exclusive. Any evidence that the subject is careless in general is supposed to be evidence that he did not plagiarize in a particular instance. The truth is just the opposite: a person with a habit of carelessness is more, rather than less, likely to cut corners by plagiarizing when he writes a proposal.

2. *Much of the contents of [REDACTED] is commonplace in this specialized field of [REDACTED]* This argument apparently means that, because the material is well known, the subject could easily have failed to notice that he was copying from a published paper that needed to be cited. This is a pure conjecture about the subject's thought processes. In any case, the committee showed that the subject took an "original idea" from the paper without crediting the authors. Even if he also copied well-known material from the paper, that should not have kept him from noticing that he was using an original idea that was not his own and needed a source reference.

3. *Experts in the field, including NSF reviewers, were apparently not misled and could sift the subject's distinctive contribution from the more general material.* This argument at most would show that the plagiarism did not deceive anyone, not that it did not occur. The fact that plagiarism is detected does not make it any the less plagiarism.

4. *The subject had little to gain by plagiarizing from [REDACTED]* On the face of it this argument is patently false, since the subject was trying to demonstrate the novelty and value of his ideas in order to obtain research funding. In support of the argument, the report says that the subject made an original contribution of his own in this section of the proposal. This is obviously irrelevant. The report argues further that this section is not the "linchpin" of the proposal, but only a small part of it. This goes to the extent of the plagiarism, rather than to whether plagiarism occurred. Finally, the report claims that the subject would not have committed deliberate plagiarism, and thereby risked detection by the experts that NSF would appoint to review this proposal, because to do so would have exhibited "sheer stupidity". The committee ruled out this possibility. Unfortunately, years of experience have shown that a

number of people have committed misconduct in science in situations where they might expect to be caught, regardless of their level of intelligence.

The report does not say clearly what the committee concluded on the matter of intent. It says in one place that there is "reasonable doubt that the subject intended to present the work of others as his own." (p. 2)¹ Elsewhere (p. 22), it talks about its conclusions regarding intent without saying what they are. It is possible that the committee drew the positive conclusion that the subject had no intent to deceive. However, it seems more likely that its deliberations were inconclusive and it gave the subject the benefit of the doubt because it thought the matter could not be decided.

In any case, NSF is not bound by the institution's conclusions. Institutions are free to use their own definitions, standards, and burdens of proof in evaluating the actions of their employees. OIG assesses the evidence produced by the institution independently, according to NSF's definition and procedures set out in NSF's misconduct in science regulation at 45 C.F.R. part 689. The burden of proof to be met in proving an allegation of misconduct in science under NSF's regulation is preponderance of the relevant evidence (45 C.F.R. § 689.2(d)), not the more strenuous reasonable doubt standard that is mentioned in the institution's report.

As noted, we do not find the defense based on a lack of intent to be persuasive. Not only is this defense not based on verifiable evidence, but it contains inconsistencies and implausibilities. Our conclusion that the subject committed plagiarism relies on the admitted fact that he copied without attribution and showed a "laxity in research practices that constitutes a serious objective violation of professional standards of scholarship". The questions raised about intent do not weaken the force of this evidence. While doubts can always be raised about a subject's invisible thoughts and intentions, the preponderance of the evidence favors a finding of plagiarism in this case.

Conclusion and recommendations. The subject submitted three proposals to NSF that contained text and research ideas copied from the [REDACTED] paper. Credit to the source was not given. The defense argued by the subject and the investigating committee is not persuasive. Hence we recommend that NSF find that the subject has committed misconduct, and specifically plagiarism, under NSF's definition of misconduct in science.

As discussed at the beginning of this report, the institution has imposed severe sanctions on the subject, including the equivalent, from the institution's point of view, of government-wide debarment. Since this is a case of plagiarism in grant proposals, NSF must take its own action to protect itself from any further misrepresentations by this individual. This will be particularly

¹While this passage suggests a standard of evidence based on "reasonable doubt", elsewhere the report says that the preponderance of evidence ("more likely than not") is its standard. (p. 22) It is not clear how the committee reconciled these two different standards. As explained below, NSF uses the preponderance of the relevant evidence as its standard in misconduct cases.

important if the subject leaves his present institution and this institution is no longer in a position to enforce its sanctions.

In the circumstances of this case, we believe the government's interest will be adequately protected with the following sanctions in effect:

- (1) If, prior to December 19, 1993, the PI is an applicant (as principal investigator or co-principal investigator) or is among the senior, key, or supervisory personnel on an application for financial or nonfinancial assistance or benefits submitted to any federal agency, the PI will provide that agency with a copy of the settlement agreement from this matter along with that application.
- (2) If, prior to December 19, 1993, the PI applies for full-time employment at any other institution, the PI will provide that institution with a copy of the settlement agreement from this matter along with that application.
- (3) Until December 19, 1995, the PI will have all grant applications that are to be submitted to a federal agency reviewed by his department chair or a similar university official, in order to ensure that the PI has engaged in proper research practices. On those occasions, the PI should certify in writing that he has recently reviewed his institution's guidelines on misconduct in science, and that, to the best of his knowledge, his grant application is free of any such misconduct, and that his grant application has been reviewed as described herein. Concomitant with his submission of each grant application, the PI will send a copy of each certification to the Assistant Inspector General for Oversight in NSF's Office of Inspector General, to be placed in that office's file for this matter.²

²Our recommendation of NSF sanctions should not be seen as implying disapproval of the sanctions imposed by the institution. On the contrary, its sanctions seem fully appropriate for this case. OIG is recommending sanctions by NSF because of NSF's obligation to protect the integrity of federal grant funds in the event that the subject leaves the institution or the institution discontinues its own sanctions for any reason. The institution imposed its own sanctions in its role as the subject's employer. Similarly, there are reasons why OIG reached a conclusion of plagiarism while the institution did not. The difference is due in some degree to differences between OIG's understanding of the role of intent under NSF's regulations and the committee's understanding of the role of intent under the institution's regulations. As noted, there may also be differences in the evaluation of evidence by OIG and by the committee.