

Michael Pritchard's Commentary on "Protection from Proposal Idea Scooping?"

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Protection from Proposal Idea Scooping?

This case raises basic concerns about confidence in one's own ability to judge the merits of his or her work; the timing of research and proposal writing; honesty; trust between researchers; and trusting the integrity of colleagues in the scientific community. Before discussing possible changes that might be made in the case, I will elaborate a bit on how these basic concerns arise in the case.

Ness seems to exude confidence in her ability to judge the merits of her own work. By disguising what she takes to be a key element in her process she is, in effect, denying reviewers the opportunity to judge for themselves. At the same time, she seems rather confident that the reviewers will not be able to detect the flaw in the process she describes. Thus, by handling the situation as she does, she is resisting a basic premise of good science i.e., that one should be willing to subject one's work to the critical scrutiny of one's peers. She acts partly from fear, but she also seems to display a kind of arrogance (that she knows and that others cannot even detect her deliberate error). This arrogance is not a good sign, as it is unlikely to be a one-time attitude. Furthermore, she is taking a rather large risk that her reviewers will miss her error. If they do detect it, it is she, not they, who will be seen as lacking; she may be suspected of deliberate deception. She fears that someone might steal her ideas; she distrusts NSF's system of review. Does she have any evidence that NSF reviewers will behave unethically? Does Black? Has she actually talked about her worries with anyone, or is she a loner?

By not consulting with Black, her sponsor, Ness makes two mistakes. First, as a collaborator, he is entitled to know what she is doing. He may not be familiar enough with the processes to find the error, but he is certainly capable of understanding that she intends to deceive the reviewers. She chooses to deceive him as well -- an

ethically problematic move and another indication of her distrust of other members of the scientific community (in this case, even a close colleague). By taking this action, she effectively blocks herself from getting advice from Black about how she should proceed. That is the second mistake. Essentially, she is attempting to go it alone, betraying both her collaborator and the scientific community. Of course, even if Black were to approve of her tactic, that would not make it right; but at least she would not have deceived her sponsor. More likely, however, Black may suggest alternatives that are more acceptable ethically.

Here is a possibility: Ness could indicate to the NSF that she is leaving out a crucial part of her process (rather than introducing an error) because she is concerned about others adopting her process before she has been able to demonstrate its reliability. She could offer to provide a fuller account if she is given assurances that reviewers will not use it themselves or reveal it to others. Or perhaps she could tell NSF that she has deliberately introduced an error in order to prevent others from stealing her ideas. If that truly is a good idea, she should be able to convince NSF that it is. However, it is unlikely that NSF would accept either of these alternatives unless it believes that its reviewers are capable of assessing the true merits of the proposal despite the crucial omission or the inclusion of an error. I should think that NSF would reply to either suggestion by saying that it is unwilling to award a \$250,000 grant for a project that it is not given the opportunity to evaluate fully. "Trust us or go elsewhere" is the likely NSF response. If Ness were to imagine herself to be in the position of NSF and its reviewers, perhaps she could appreciate this response. Here is the message NSF would hear if it learned of Ness's tactic: "I know what I'm doing. Trust me. Of course, I don't trust you. So, I'm going to lie to you, but only this time. Trust me. I know that peer review and evaluation is essential to good science -- but not now, just as I'm getting started."

Much of Ness's difficulty in this case pivots around the timing of her research. She and Black are worried about meeting a deadline. NSF has deadlines every six months. Ness's best course of action may be to wait another six months. Compromising in order to meet deadlines is a temptation she may frequently face. Her response to pressure in this case is not a good precedent. We might also question Black's rushing Ness ahead.

In answer to the questions for Part A, I would say that Ness has done something unethical. She has deceived both Black and the NSF, without apparent justification. She expects to be trusted to do quality research (presumably without further

deception), but she is unwilling or unable to trust those from whom she expects assistance (Black and the NSF). From an ethical perspective, that is a very unhealthy environment. On the basis of what is presented in the case so far, it is not clear whether Ness is justified in doubting the confidentiality of the NSF peer review process, but if researchers cannot trust the NSF process, whom can they trust? After all, NSF is a federal agency supported by our tax dollars, not private industry. Insofar as researchers have such doubts (justifiable or not), it seems that the NSF should do its best to ensure that these doubts are not justified. That is, NSF has an ethical responsibility to ensure confidentiality.

This case illustrates the importance of trust among scientists. What could Ness have done differently to protect her research proposal? Probably no course of action would guarantee the security of her ideas. But she has no guarantee that things will work out well by introducing the error, either. In fact, it seems that her own choice is much riskier. Part B illustrates only one of several possible ways in which matters may go very badly for her.

What occurs in Part B is rather ironic. Ness's ideas are misused (the confidentiality requirement is betrayed by an NSF reviewer), but the error is detected nevertheless. Admitting to the student that she deliberately introduced an error does not end her obligations. She should inform NSF, and perhaps the scientific community. Why should she take this action? There is little reason to think that her proposal has been shared only with this student, who, after all, was not one of the reviewers. Who else has been privy to the proposal? And what sort of mischief might result from others adopting the flawed process? Materials and money will have been wasted. Perhaps there are other risks. It is impossible to know where the misinformation and its consequences will stop. Part B simply gives us one possible variation on the basic theme that Ness has made a big mistake.

I think the case is basically well written. However, it seems a bit exaggerated. It is unlikely that NSF will promise career-long support for a post-graduate (or anyone else). Ness's belief that NSF might respond in this way may be more realistic. Perhaps there is a way of helping readers see that sometimes young researchers exaggerate how much is at stake, just as they may underestimate the importance of extending trust to others. Also, after readers have wrestled with the case, there could be some discussion of the NSF review process (how reviewers are selected, how assurances of confidentiality are provided, and what might happen to reviewers who are caught misusing the proposals they review). That would be a discussion of a

rather complicated, but important, web of trust that NSF is counting on.

Finally, some questions arise about the roles of various players in this scenario. Black's role is not entirely clear. If he makes the application to NSF, why does Ness get the award? What are Black's responsibilities? What does providing "administrative information" involve? Are no other researchers involved in this project? If not, and if Black does not understand the science involved, what basis does he have for thinking that Ness is ready to do the research? If he is committed to science (and the responsible use of NSF's money), it seems that he should want the NSF to have as much accurate information as possible about what Ness is doing. It is to be hoped that he would indicate this need to Ness if she asked him about the advisability of deliberately introducing an error. It is also to be hoped that Ness would be able to reach this conclusion independently if she asked herself how he might respond (thus stopping her plan without even having to discuss it with Black).

However, it is possible that Black is too ambitious for Ness (or himself, if some of her success will be credited to him). Ness may be too ambitious. This case provides a good opportunity to discuss the various ways in which personal ambition may tempt researchers to engage in ethically questionable behavior even though they may sincerely think they are justified in doing so (e.g., because they do not believe they can trust their colleagues and peers to act appropriately).