Ethics Case Study Exercise CMMAP Meeting, August 7, 2007

Reviewing a Research Grant Proposal Gives Professor Q. a Great Idea

A case study by Professor Robert L. Switzer, Department of Biochemistry, University of Illinois at Urbana-Champaign http://www.responsibility.research.umich.edu/casematerialsdir.html#criteria Posted with the permission of Dr. Switzer.

The Scenario

Following its usual practices, the NSF has sent Professor Q. a research grant proposal to review because they feel she's a good outside expert. Is she ever! Studying the proposal, she discovers that the person submitting the proposal, Dr. F., whom she does not know personally, has begun to work in the same research area as she does. Not only that, but Dr. F. has some impressive preliminary data and some very clever and highly feasible ideas for making rapid progress in his research. Dr. F. hasn't done these experiments yet, of course, because he doesn't have the grant funds. With a sinking heart, Professor Q. realizes that if Dr. F. is successful, he will make some major contributions toward the problems she's been studying -- without as much success as she would like. Of course, her lab is set up, equipped and has the materials to try out Dr. F.'s great ideas. She could easily beat him to the punch, and, since grant reviewers are anonymous, he'd never know that she got the ideas from his grant proposal.

Professor Q. knows this would be a highly unethical act (although everyone hears rumors about cases in which it happened), and she resists the temptation. But the genie is out of the bottle . . . She can't just forget those terrific ideas. Dr. F.'s approach is better than their current approaches.

Questions to consider:

Note: it is not expected that you will answer each of these questions and then consider yourself done. Rather, you should use these as guides in how to begin thinking about this scenario.

- 1 What should Professor Q. do? Should she return the grant proposal to the NSF and say she can't review it because of a conflict of interest? Should she give it the high rating it deserves?
- 2 How can she pretend in her own research not to know about Dr. F.'s good ideas? Shouldn't a scientist take the best and most efficient approach that is available?
- 3 Should she call up Dr. F. and tell him what's going on and ask to collaborate? Is that fair to Dr. F.?
- 4 Is there any way this dilemma could have been avoided?

Discussion

After discussing this issue in small groups, the CMMAP team came together as a whole to look at various insights relating to this case. An interesting twist arose, as Jay Fein, an NSF Program Director (who has received proposals from many CMMAP participants) was present and taking part in this exercise.

First, some facts about the proposal process came to light:

- If the proposal is not funded, it will never been seen by anyone but the proposing institution, the NSF Program Director, the proposer, and the reviewers.
- If the proposal is funded, it will be posted electronically on the NSF site as a funded project. At this point the idea becomes more public, and the process becomes a bit more transparent.
- Reviews can be anonymous if the reviewer desires, but can also be signed by the reviewer to allow the proposing PI to know who wrote this particular review.

Comments from a variety of groups in the CMMAP team:

- It would not be reasonable for the Professor Q (the reviewer) to just return the proposal without reviewing it and consider herself done. She has already seen and become interested in the proposed idea. As mentioned in the case study, the genie is out of the bottle. She knows about the idea already and returning the proposal unreviewed won't change anything.
- Professor Q. cannot just take the idea and research it herself. One group considered such a thing to be a kind of plagiarism, i.e., academic theft of the idea.
- Another viewpoint was that no one actually owns ideas. Professor Q. can call up Dr. F. and ask to collaborate. However, if he refuses then Professor Q. and go ahead and work on the idea, too. There's room in science for everyone and it's in the public interest that great ideas are investigated. The ideas are what are important, not the egos of scientists.
- By receiving the review, Professor Q. is put in a difficult position. For example, if she had already been considering an idea similar to this one she might be accused of stealing the idea from Dr. F.
- It would have been better if the NSF Program Director had e-mailed the reviewers first, sending an abstract and requesting Professor Q's input on whether or not she could review this proposal. That way, Professor Q. would have been able to determine from the abstract that, by reviewing this proposal, she would be placed in a difficult position and could thus decline to review it.
- Professor Q. should give the proposal the high rating it deserves, and must also sign it so that everyone involved is aware of who did it.

- Professor Q. can go ahead and ask to collaborate, but if Dr. F. doesn't want to, then Q. must refrain from working on this idea. She has to do her best to forget all about the idea.
- Professor Q. needs also to inform the NSF Program Director about the conflict of interest that she is experiencing.
- An unresolved difficulty in all of this is regarding what will happen to Professor Q. and her work in the future. Will she be accused of stealing her own, closely related ideas? What about ideas of hers that become better defined because of reading this proposal are those ideas completely hers?
- One group decided that they would just pass this problem on to the Program Director call him or her and let someone else make the decision about what to do.
- When such a conflict of interests does arise, it is best to begin making the process more transparent the reviewer should talk to the NSF Program Director, may choose to talk to her department chair, sign the review, and so on. Keeping the conflict to herself will probably not serve Professor Q. nearly as well as being open about it.

Comments from Jay Fein, NSF Program Director

- In such a situation, the Program Director would like to be informed about the conflict of interest here. Professor F. should call NSF.
- Instances like this do happen from cases as blatant as this through a whole range of gray areas. Because proposals can only be reviewed by people doing similar work (no one else will understand it as well), there will always be the potential for conflicts of interest in the review process. Part of the solution is that anyone experiencing a conflict of interest must try to add transparency to the process, being open and honest about the situation.
- Jay's solution to the problem would be for the reviewer to complete the review, giving it the high rating it deserves, but also add a personal note in the review saying that she would like to collaborate with Dr. F. This note will go to Dr. F. along with the rest of the review, at which point Dr. F. can decide whether or not he wishes to collaborate. If he doesn't, he can simply not respond to the reviewer's request to collaborate, letting her know tacitly of his wishes without anyone having to go through the embarrassment that may come about through a more personal rejection.

Additional Comments

First, I would like to mention that philosophers really dislike putting forth work when there hasn't been adequate time to think about it. However, in the interest of getting as many

CMMAP people to be thinking about ethics as possible, I'm including these additional comments. To paraphrase the great Hannah Arendt, while these additional comments may not be entirely *right*, I at least hope they will be *more interesting than wrong*.

In such instances as described in our case study, it may be useful to look at the power relationships between the various actors. For this, I will define *power* as *the ability to achieve a worthwhile goal*. The main goal in this case is for the NSF to fund interesting and important science.

The Players:

The NSF Program Director. This person has the greatest amount of power -- money for research and the ability to choose who will get it. However, the Program Director cannot achieve the goal without the help of the scientists answering the Request for Proposals and the expert reviewers who will help to select the best proposals to fund.

Professor Q. She is an established scientist, already equipped with a lab and adequate workers (it seems). She does not, however, have an idea of her own that will result in the great science that is desired. She has been asked to evaluate a proposal with a great idea and has the power to either support it or write a review that may lead to getting it rejected. If the proposal is rejected, she could do the work herself and accomplish the goal before the idea's originator is able to. This would increase her own power in the short run, but may lead to discovery by the NSF Program Director. This would lead to disgrace and the subsequent lessening of power in the longer term.

Dr. F. He is the least powerful person in this scenario. He does not have the current means to accomplish the goal, which will require money to set up a lab, hire people, and then get to work on his great idea. At the moment, all he has is a great idea, a submitted proposal, and the envy of Professor Q. In all likelihood, if Dr. F. were already a respected and established scientist, Professor Q. would never even consider trying to do this interesting work in her own lab. It is only Dr. F's current powerlessness that opens up this possibility – either by Dr. F. willingly collaborating with Professor Q. or by Q. simply taking the idea for her own to work on.

While Dr. F. is currently rather powerless, he nevertheless has great potential since he has the ability to understand the problem to such a degree that he can generate very interesting questions and the means to answer them. (We will assume that this is a quality he has, and that he is not just a scientific "one hit wonder.") This is an ability with huge potential and it is likely that given time, encouragement, and resources he will be able to further empower the NSF Program Director, who needs such scientists in order to achieve his own goals. Thus, in the longer run, it is in the interests of both Dr. F and the Program Director to further empower Dr. F. by rewarding him with the opportunity to work on this great idea, in the hopes that not only will it lead to good science in the near future, and even better science later on.

Poor Professor Q. has a lab but has only come by this great idea and the potential it holds through luck. This is a poor position to be in, even though she has more immediate power than

Dr. F. Still, she must have done something in the past in order to be recognized as a competent reviewer. Collaboration with Dr. F. may serve them both well, as well as furthering the scientific goal.

Suggestions on How to Tease Apart the Issues in this Case Study

When trying to figure out what any particular actor in a scenario should do, there are a variety ways that someone can tease apart the ethics of the situation. These include:

- Thinking about what *duties* the various actors have. In the case above, the reason Professor Q. got the proposal in the first place was to review it. While her more typical duty as a scientist is to do good science, her duty in this case is to review the proposal. The conflict comes about because of the conflicting duties, but here the primary one is to help get the best proposals funded. She needs to keep her own science out of it for the moment.
- The philosopher Immanuel Kant wanted to develop a kind of "ethics math" a way to know what is right and wrong in every situation. One of his major rules was that we must only do or allow those things that we could agree should always happen every time. In our case study, Professor Q. could only use the idea in the proposal if she could honestly say that any time scientists get proposals to review, they could also feel free to go ahead and use those ideas at will, in effect "scooping" the team that proposed the idea in the first place. Such a rule would almost certainly lead to a great deal of mistrust among the scientific community, hampering the review process. Therefore, Professor Q. can't ethically use this idea as she so wishes to do. Calling up Dr. F. to ask to collaborate is not as straightforward this could be ok.
- When dealing with things that look like ethical dilemmas, keep in mind that the world is a complicated place. Instead of something having only two solutions, one right and one wrong, are there intermediate solutions that are acceptable to everyone? In this case, Jay's solution looks to be an acceptable middle road. When you look closely, there are very few realistic situations that are true dilemmas, i.e., situations in which there are only two possible solutions, each of which is unsatisfactory. We can learn to use empathy and creativity to find reasonable alternatives.
- A utilitarian solution may also be found the one solution that leads to the *greatest good*. Unfortunately, such a solution often entails both winners and losers. It's usually fine if you're one of the winners but if you're on the minority losing side, I expect you'll find the solution to be less satisfactory. Still, most governments (for example) strive to find a good combination of making each individual's life meaningful and worthwhile and working for the *greatest good for the greatest number*. It's rather a difficult path to find.