Karen Muskavitch's Commentary on "The Statute of Limitations"

Commentary On
The Statute of Limitations

Overview

This case raises some very interesting and pertinent issues for those working in the sciences -- issues of intellectual property, intellectual turf, the training of graduate students, communication and cooperation vs. competition in science, and the evaluation of ~~our~~ scientific peers. In general, there are neither rules nor explicit guidelines from professional societies or universities that address these issues. At best, there are norms and/or precedents that senior scientists picked up somewhere and that they may pass on to their junior colleagues. Yet questions like "How do I give others appropriate credit for information they have shared with me informally?" are central to the lives and careers of scientists, and deserve more careful consideration. That is what this case seeks to facilitate.

While there are many "right" answers to the questions posed, some of which will be better than others, there are also "wrong" answers. Before diving in and trying to solve Eileen and Steve's problems, it is important to consider the criteria by which we judge the ethical rectitude of people's actions.

First, I would submit, the proposed course of action must demonstrate respect for the people affected by it. By respect, I do not mean just civility, but rather the respect for persons described by Kant:

> Act only according to that maxim by which you can at the same time will that it should become a universal law. . . .
>
> Act so that you treat humanity, whether in your own person or in that of another, always as an end and never as a means only. (Kant, 1785)

In other words, the proposed course of action, if it is to show respect for others, must be one that we would be happy to see everyone follow, and it must not treat people as things. The course of action needs to be consistent with the obligations of the people involved toward each other. These people need to have a voice in designing the solution to the problem, and all must be able to choose for themselves what they will do.

Second, the possible consequences of the proposed action must be considered. What are the good things that might result? What are the bad things that could happen? How are the potential benefits and harms distributed among the people involved? An ethically sound course of action should result in more benefit than harm. More than that, it should minimize the possible harms or risks, and ensure that the benefits and harms are equitably distributed. A course of action that has the potential of five benefits and two harms is better than one that could result in ten benefits and seven harms. A proposed course of action that exposes a single person to all the potential harms person, while reserving the benefits to the other two people involved, is not as good as a plan that has all three share equally in the risks and benefits.

Those doing research involving human subjects may recognize the criteria presented here as those underlying all the human subjects regulations: respect for persons, beneficence, and justice (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1978). These are some of the basic principles of ethics, and they provide excellent criteria by which to judge any action. Besides, if we use these three principles to guide our interactions with our human research subjects, shouldn't we expect a similar standard of conduct for our interactions with our colleagues?

This case presents a wonderful opportunity for the participants in the discussion to share their experiences, their knowledge of the norms in their disciplines and laboratories, and their ideas for how these situations *should* be handled. The experiences and norms will be quite varied, and will induce the participants to start

evaluating the different conventions and to think of new solutions to the problem. At this point, the group can move on to evaluating the different potential courses of action suggested, and determining what should be done and why.

One additional comment: When discussing this case, someone will probably say, "Well, why doesn't Steve just join Eileen's lab? That would solve everything." However, this solution might not be feasible. Eileen may not have room for an additional student, or Steve may not be interested in plant population genetics. Perhaps Steve is interested in studying lizard species and has joined Bill's group because reptiles are the experimental animal of choice in Bill's lab.

Discussion Questions

Part 1

Question 1. Collaboration carries with it a tension. We usually see ourselves as selfless researchers exploring the world around us for the good of science and humanity; in that light, collaborations should be a good thing because they are frequently a more efficient use of resources. Yet, we judge each other based on personal achievement, individual inventiveness and insight. A member of a collaborative team is usually not as highly regarded as a solo researcher who has produced similar results and ideas ~~solo~~. On the other hand, being a member of a collaboration is usually better for one's career than losing in a head-to-head competition between researchers to see who can publish first and so claim the discovery. Maybe it *shouldn't* work this way, but it often does.

The way that this question is written suggests that one may have an obligation to accept a proposed collaboration. That is an interesting idea that merits discussion. It is generally, although not universally, accepted among scientists that we have an obligation to make our discoveries known to others, usually through peer-reviewed publication. It is somewhat less generally accepted that once publication has occurred, one has an obligation to make available to other qualified scientists the unique research materials that were used in one's work such as biological strains (e.g. mice, plant seed stocks, tissue culture lines). Recently, the willingness to share unique research materials has been made a prerequisite for publication in a number of prestigious journals in the biological sciences. Collaboration, while usually viewed in a positive light, is not viewed as an obligation, and I'm not sure how one could

argue that it is a general ethical duty of scientists toward each other.

However, the relationship between Eileen and Steve is special in some ways. She is a professor, a teacher, at a university, and he is a beginning graduate student in her department. Therefore, Eileen has greater obligation to help in Steve's training than that of a professor at another university or in a different department. In addition, at the brown bag lunch seminar, which Steve was probably required to attend as part of his training, Eileen exposed him to an idea that now seems to be coloring all his thoughts as he works to design a research project. She must take some responsibility for the consequences. Does that mean that Eileen must accept Steve's offer of collaboration? I don't think so, but it does suggest that she needs good reasons for refusing to collaborate.

Question 2. This question presents some possible reasons that Eileen might have for refusing and asks us to evaluate them. If we agree that Eileen does not have an absolute obligation to collaborate with Steve, then the questions are how strong is Eileen's obligation, and are her reasons for refusing sufficient to counter that obligation? Neither issue is easy to evaluate, but I would submit that if the cost of the collaboration to Eileen is high in terms of effort, time and money, it is more difficult to assert that Eileen should collaborate with Steve. Of course, the conflict between Steve's right to follow up on his plan for an experiment and have a good thesis project vs. Eileen's right to receive credit for originating her idea and control its public presentation still remains, but it should be possible to come up with a compromise that respects both of these claims. Determining whether they should participate in a proposed compromise plan is a question of the costs to each and their equitable distribution.

Discussion Questions

Part 2

Question 1. The ethical implications of "sitting on" an idea would be most fruitfully explored by looking at the expected consequences of continued "sitting" relative to letting another pursue the idea. The question points out that there may be potential harms or benefits to others besides the principals in the scenario, and that these should be considered as well. In the overall discussion, however, it is important to keep the principles of justice and individual rights in mind so that one does not just

concentrate on ethical calculus.

Question 2. The means by which Eileen communicated her idea does make a difference because it bears on the issue of her right to receive credit for the idea. If it were a large, public forum, many in the field would know the idea was hers, and she would receive appropriate credit within that scientific community. That would be particularly true if there were some written record of her presentation of the idea in a technical note or poster abstract. Publication makes an idea available to all to pursue as they wish. Most researchers these days understand that anything presented in any form at a meeting may be pursued by anyone who learns of it.

In this case, the context for Eileen's presentation was an informal, in-house seminar. That makes the question much more difficult because keeping such for as open and free-wheeling as possible is beneficial to everyone; to achieve that goal, the participants must feel safe to share ideas that are not yet formally claimed as their own.

Question 3. I have never heard of a formal declaration of a "statute of limitations," but arriving at an understanding of this concept would be beneficial to all. In the past, I have usually heard this concept invoked by advisers who feel that their former students are talking too long to write up their research for publication. It is difficult to determine how long is "long enough," and I doubt that a single, interested colleague like Bill can do it fairly. It would require a group familiar with the experimental systems involved. In this case, one year may be far too short if Eileen gets only one growing season per year for her experimental plant and plans her experiments one to two seasons ahead.

Question 4. Eileen's actions differ from those of Dr. Igneous in at least one important way: She is being honest about her development of her idea and work to test it. She is not trying to mislead others, and she has already made an investment in the development of the idea. Dr. Igneous may not have generated any original ideas, but just claimed to be doing experiments in a number of areas to minimize the competition. The amount of work Eileen has already invested in the development and refinement of her ideal does matter because if she does not receive credit for originating this idea, the work already invested will represent a loss to her; a cost or harm to her as possible result of Steve's course of action. The amount of work she has done on the idea is also an indication of her determination to follow through with the testing and not just sit on the idea as Dr. Igneous did.

Question 5. Eileen's case for refusing Steve's offer to collaborate is strengthened if she has a clearly identifiable reason for her delay and if that delay has an identifiable end point. An example might be a heavy teaching load this year but a free semester in the next year.

Regardless, the situation for Steve is still not good, and some sort of creative solution would be best for all involved. Steve appears to be a grad student who has been captured by an idea. It is as if Eileen's model explains the observations he and others have made on his experimental population, and thinking about it has changed his view of all future investigations he has planned. He cannot ignore it. The idea has become part of the way in which he thinks about his research. Steve is not saying that Eileen should not get credit for the idea, but rather that he needs to be allowed to follow where consideration of it is taking him.

Question 6. Bill's role in this case is one that deserves some consideration. He is Eileen's departmental colleague and possibly friend, but he is presenting Eileen with what amounts to an ultimatum and then justifying his actions with the Dr. Igneous story. He is a very important player in this scenario, and it would be useful to explore what his obligations to the other people are, and what alternative courses of action he might have taken. Steve does need an advocate, and Bill is the logical person to fill this role, but Bill's course of action will not result in the best possible consequences for any of those involved.

Question 7. Bill and Eileen's argument certainly does indicate a tension between personal ownership and collaboration, between competition and cooperation, between individual recognition and the good of science. This is a very real tension in science and one we all try to balance. Collaborations are generally perceived as a good thing, but some may question the individual abilities of those who always work in collaboration with others. Collaboration with a more senior researcher can also result in the shadow effect; most assume that the major ideas and impetus for the work originated with the senior partner. Students need to be aware of the reality of these tensions, and of the need to work toward changing the culture of science so as to decrease them.

Brainstorming possible solutions to the situation as it stands at the end of Part II, followed by an evaluation of the various ideas generated, would be a good way to close a discussion of this case. This approach will help the participants think both creatively and critically if they find themselves in a similar situation. If the group

wants to go further, they could try some role playing and work out what the characters in this case might actually say to each other as they try to implement the course of action the group has decided is best. Coming up with an equitable solution is one skill, and implementing it is another. Both require practice.

References

- Kant, Immanuel. *Groundwork of the Metaphysics of Morals* (1785). Quoted in James Rachels. *The Elements of Moral Philosophy*, 2d ed. New York: McGraw-Hill, 1993.
- National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. *The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research*. 1978.