Karen Muskavitch's Commentary on "Richard's Radioactive Risk"

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Richard's Radioactive Risk

This case should trigger a good discussion on the importance of effective communication and respectful relationships within a research group, how to achieve such a desirable lab climate, and what to do if things go wrong. It has been my experience that we scientists don't talk very much about interpersonal relationships within our research groups and have little to no training in how to facilitate effective communication. After all, we did not go into scientific research because we were "people persons." Unfortunately, although good research can be done in an unpleasant lab climate, poor communication and relationships usually translate into time and energy wasted on bitter thoughts and feelings, plus opportunities missed because of a lack of cooperation and sharing of ideas. We wouldn't tolerate such a situation if the problem were lack of skill in an experimental technique; we would seek out advice, information or training. Dealing with an interpersonal conflict is the last thing most scientists want to do, but as we can see from this case, we can't always just pretend the problem doesn't exist.

How does one facilitate effective, respectful communication within a research group? Someone with training in management or psychology might be better suited to answer that question. I know of one institutional program designed to help academics learn effective, respectful communications skills (Klomparens and Beck, 2002), which could also be incorporated as one of the goals of an educational program on the responsible conduct of research (RCR).

In addition, I have some observations and suggestions from my years in the lab. One requirement for good communication is regular meetings: of the entire group, of individuals with the faculty PI, and of small collaborative working groups, if these exist. These meetings should not only feature formal presentations and reports, but should include a lively discussion and questioning of the material presented as well as an exchange of ideas. Meetings of the entire group might sometimes include discussion of cases, like this one. They are also the perfect forum for the discussion

of "lab business" concerning policies on keeping the darkroom clean, the proper place and state in which to return the Geiger counter, and the like. After meetings of small working groups, it may be desirable to write up and circulate among the collaborators a record of what was decided at the meetings as a way to avoid misunderstandings and perceived territorial infringements. Regularly scheduled individual meetings enable the PI to keep in touch with what everyone is doing and give lab members a chance to voice concerns without having to make a big thing of it by asking for a special meeting with to PI. Regular meetings help people to become accustomed to talking with each other and understand that the exchange of information is one of the expectations of the research group. Regular meetings also ease informal, day to day communication as people get to know each other better. Informal communication can be further facilitated by nonscientific gatherings of the group (going out for lunch, for instance) and by the PI's frequent participation in the daily discourse of the lab. Just coming in regularly for a morning cup of coffee and some conversation will help the PI keep in touch with the real climate of the lab. Yes, we're all too busy, but regular informal interactions are essential. The most important thing that PIs can do to promote a good climate s in their research groups is to model open, clear, respectful communication with all members of their groups at all times. Monson's decision to privately ask Paul to begin to manage the daily activities of the lab, and then not to discuss this decision or even make it known to the other members of the lab clearly did not help the climate in his lab.

What to do when things go wrong within a research group? The best course is to intervene early. That doesn't mean that you don't give people a little space for occasionally having a bad day, or forgetting to do something they ought. But one shouldn't wait too long to deal with repeated lapses or a simmering tension. A climate where questions were accepted, even expected, would have helped a lot in the case presented here. However, no one wants to bother Monson, nor can they talk with each other in anything other than an accusatory tone. Richard, an undergrad and thus quite low in the lab pecking order, feels that his only recourse is to spend as little time in the lab as possible. If someone had alerted Monson, or if he had spent enough time with the people in his group to realize that something was not right, the critical incident might have been averted. It might also have helped to have a mechanism to defuse the tension when Lisa began leaving equipment dirty. (See Commentary on "The Rat Race," p. 53.)

Discussing what Richard should do after he observes Paul's suspicious behavior is a good opportunity to practice imagination and moral reasoning. First the group can brainstorm all sorts of things Richard might do, and then they can be called upon to determine which option they judge to be the best and explain their reasoning. Brainstorming is a good exercise because people in difficult situations frequently think that they have only two or three options. It takes imagination to find creative middle ground. In Richard's case, he might: call the city police, call Laboratory Safety and leave a message, confront Paul one-on-one in the lab that very evening, do nothing, put a radioactive hazard label on Lisa's chair and walk out, call Monson, call another faculty member, call the New York Times, and so on. There are lots of possibilities if you separate the imaginative from the evaluative process.

After brainstorming, the discussants need to evaluate the options generated, a process usually referred to as moral reasoning. Several guides on how to teach and practice this skill are available (see, for instance, Bebeau, et al., 1995 or Elliott and Stern, 1997). One needs to consider and then balance the moral and legal obligations of the protagonist, the other people who might be affected by his actions and their interests, and the possible consequences of different courses of action. Frequently, it is easiest to start by eliminating the possible courses of action that are unacceptable, being sure to explain one's reasoning, and then move on to consideration of the relative value of the remaining, acceptable options. Just as there is more than one way to build a bridge across a river, there are usually several acceptable options. The discussants may disagree on which is the "best" course of action for Richard to follow because they may weight different obligations or interests differently, and that is fine if their reasoning is sound. There is usually no single right answer to such problems.

In this scenario, Richard chooses the acceptable option of alerting Lisa. One option that is not acceptable is that he do nothing. After all, the contamination threatens not just Lisa, but others who might come into the lab such as the janitorial staff or another grad student who drops by to talk. One could argue that alerting Monson might have been a better course of action. Since it is his lab that is affected, he might be better able to shield Richard from any fallout, and the license for use of radioactive materials is in Monson's name. This is a good topic for discussion.

References

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