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The Art of the Responsible Conduct of Research

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Abstract

Remarks shared by Dr. Ken Pimple at a panel titled "The Core Content in Research Ethics Courses" in 2004 at the annual meeting of the Association for Practical and Professional Ethics.

Body

Describing what should be covered in a core course on, say, Western philosophy would be enormously challenging, but it would be easier than describing a core course on the responsible conduct of research (RCR) in at least one way: When we talk about core courses in philosophy (or just about any other field), we can take it for granted that we are talking about a standard 3-credit hour college class designed to be taken by students in the first or second year of undergraduate or graduate study.

When we talk about education in RCR, however, we cannot take for granted the nature of the teacher or the audience, not to mention the duration or the format of the “course.” For example, at the moment, and for the near future, RCR education will vary along several axes.

1. It will be taught by research administrators, IRB administrators, ethicists, junior faculty members who don't want to do it, and junior and senior faculty members who do.
2. They will teach graduate students, but more often postdoctoral fellows and professionals, including faculty members, researchers, research administrators, IRB members, and research support staff such as lab technicians. Some undergraduates will also get some RCR education.
3. The duration will commonly be a few hours, or a few two- or three-hour sessions, and only rarely a whole semester.
4. The format is more likely to be a Web-based tutorial than a traditional face-to-face class.
5. In the rare instances in which the education is delivered in a face-to-face setting, the style of instruction will be lecture, small group discussion, case study discussion, and so on. Whatever the format or setting, it may or may not include required readings, writing assignments, etc.
6. It usually will not carry academic credit, but will likely be required. The requirement is likely to be accompanied by some sanction, such as refusal of the IRB to review protocols if the training is not completed. Prepared for presentation at the annual meeting of the Association for Practical and Professional Ethics, Cincinnati, Ohio (February 2004). Please do not cite or distribute this draft without the written consent of the author. Copyright © 2004 by Kenneth D. Pimple; all rights reserved. I would like to thank Jennifer Livesay and Kara Lochridge for comments on an early draft of this paper. Director of Teaching Research Ethics Programs, Poynter Center for the Study of Ethics and American Institutions, Indiana University, 618 East Third Street, Bloomington IN 47405-3602; (812) 856-4986; FAX 855-3315; http://poynter.indiana.edu/; pimple@indiana.edu.

All of these variations on the theme make defining the core content of RCR education quite confusing. For better or worse, however, the subject matter is fairly well defined, thanks to the intervention of the government of the United States of America (which has not, as far as I know, intervened in the same way when it comes to core education in Western philosophy). The history of this intervention is beyond the scope of this paper, but the 800-pound gorilla is the "PHS Policy on Instruction in the Responsible Conduct of Research (RCR)," announced on December 1, 2000 and suspended on February 20, 2001.See http://ori.dhhs.gov/html/programs/rcr_requirements.asp (accessed 14 January 2004).

This policy outlines nine “Core Instructional Areas.” Since it simply cannot be ignored, we are fortunate that it is a thorough and reasonable outline. Although it is neither exhaustive nor perfect, it serves as a good starting point.

How one would fine-tune the PHS core instructional areas depends to varying degree on the details of the six axes I have already mentioned – the instructor, the audience, the duration, the format, the style, and whether it is mandatory or carries credit. The idea of all of that fine-tuning makes me dizzy, so instead of dealing with that problem I propose to focus on a rather more abstract aspect of RCR training, namely the abilities or skills it should foster.

It is often asked whether the goal of RCR education is to change behavior. It’s a natural question – why teach the responsible conduct of research if you don’t intend to make researchers act responsibly? It would be churlish to think that it would be bad if RCR education actually made researchers responsible, but nevertheless I think it is the wrong question to ask – at least, it is the wrong first question, in which position it implies that behaviors need to be changed, suggesting that the instructor should take a particular attitude toward her or his students, namely to assume that they are irresponsible or unethical – that they need to be reformed, or converted. That assumption doesn’t set the stage for a collegial and productive learning experience.

To me, it seems much better to start off by assuming that the students – under which heading I include working professionals – are responsible and ethical, but that their training and experience have not included systematic attention to the sometimes counter-intuitive, often subtle, and constantly changing nuances of the responsible conduct of research. So my first question is, “What’s missing from their prior training and experience?”

Part of the answer is content – subject matter – knowledge, which I’ve already indicated I am not going to tackle here. But there are other parts to the answer which, I think, apply across the board in RCR education.

The first thing researchers need is permission to talk about ethics, which is generally absent from their training and, in many cases, from their general experience. Graduate students and faculty members have concerns about ethics, but few venues in which to express those concerns, and little experience or practice in doing so. Any RCR training that includes discussion, that allows the students to ask questions and

to form and express opinions or conclusions about ethical issues in research, at the least creates an experience of ethical discussion. Ideally it can also contribute to a general atmosphere in which ethical discussion is allowed and encouraged.See http://ori.dhhs.gov/html/programs/rcr_requirements.asp (accessed 14 January 2004). In spite of the suspension, many research institutions are preparing to offer RCR education in the nine core instructional areas. Furthermore, at least as of October 2003, the Office of Research Integrity is trying to resurrect the policy (Chris Pascal, ORI Director, personal communication).

It seems to me that creating an environment in which ethical concerns can be safely discussed, whether in a class room, a lab, a department, a university, a discipline, or across science – or better yet, across society – is particularly important and difficult these days, when public discourse on ethics is generally limited to angry denouncements and threats to sue. It is not easy to bring up ethical issues, even hypothetical ones, when you think that doing so might get you labeled as a trouble maker or – what might be worse – a goody two-shoes.

RCR education should also help develop certain skills. Four come to mind immediately.

1. The ability to recognize a moral problem in research.
2. The ability to develop a well-reasoned argument upholding the thesis that the supposed problem is an actual moral problem.
3. The ability to devise a practical and morally sound plan of action for addressing the problem.
4. The ability to discuss issues in the responsible conduct of research in a diplomatic and rigorous fashion.

My debt to the late James Rest’s four-component model of morality is obvious to anyone who is familiar with it.Rest and his colleagues have published a great deal on this model and the empirical work that has been done to develop and verify the model. The publication with which I am most familiar is: Bebeau, Muriel J., et al. 1995. “Moral Reasoning in Scientific Research: Cases for Teaching and Assessment.” Bloomington, IN: Poynter Center. Available online at http://poynter.indiana.edu/.

Probably the best method for developing these four skills, and fostering an atmosphere conducive to the discussion of ethical issues, is to include some kind of case study discussion. The worst method is merely to lecture.

I assert that these five goals – encouraging the discussion of ethical issues in research and developing those four skills – can be met in any snippet of education in the responsible conduct of research, no matter how long, no matter what setting – as long as there is some kind of give-and-take between a facilitator and the students. I'll get back to this caveat in a moment.

Please note that I am not making a huge claim here. Allow me to reiterate: Any single learning experience in the responsible conduct of research, whether it lasts an hour or a semester, can help develop the aforementioned abilities. T

The operative words here are "help" and "develop." An hour of RCR training is unlikely to work miracles, giving someone who has never thought about moral problems in research the ability to spot all such problems instantly and infallibly. But, I believe, even just one hour can help anyone get a bit better at it, including those who are already good at it. Even the expert can stand some additional training or practice.

I also doubt that any amount of RCR training can instill an ability to recognize moral problems into someone who has no such ability to begin with. Fortunately, almost everybody has a degree of moral sensitivity, and RCR training can help develop it further. Even more likely is that RCR training will enable individuals to direct their pre-existing moral abilities to their professional life.

By no means do I intend to imply that researchers are not already aware of the moral aspects of their work, but I do think that it is all too common that ethical skills, such as recognizing and reasoning about moral problems, are not explicitly exercised in professional life. This is not a bit surprising, when you come to think about it. Morally sound behavior is so strongly expected that it is taken for granted. When a novice enters an established arena of practice, whether in banking or biochemistry, the novice recognizes all sorts of strange and bewildering behavior and assumes that it is all correct and proper. For the most part, this assumption is warranted and often this state of affairs is not problematic. But it fosters a sense of complacency, of taking things for granted, that makes it more difficult to recognize and deal with moral problems when they arise.

Helping people apply their moral abilities in the research setting is a valuable and relatively straightforward result of well-designed and executed training in practical ethics. Any core curriculum that fails to encourage the development of moral skills is

inadequate.

Now, early in this paper I said that the format for education in the responsible conduct of research is “more likely to be a Web-based tutorial than a traditional face-to-face class.” A bit later, I asserted that “encouraging the discussion of ethical issues in research and developing th[e] four skills [I had outlined] – can be met in any snippet of education in the responsible conduct of research, no matter how long, no matter what setting – as long as there is some kind of give-and-take between a facilitator and the students.”

There’s a problem here. The easiest and most common way to create a Web-based course is to emulate the lecture. It is possible to have discussion via the Web – I’ve done it often – but the difference between creating and providing a typical Web-based course and a Web-based course that includes discussion is something like the difference between publishing a textbook and offering a face-to-face course. For discussion, you’ve got to have a discussion leader; text posted to the Web, no matter how good, cannot do the job.

Web-based instruction has its uses. It is relatively inexpensive to develop, deliver, and maintain. It provides a relatively easy way to disseminate information to a large number of people. It fulfills certain Federal mandates (as currently written). It has public relations value. If it includes some kind of certification, no matter how lame, it can deprive researchers who go astray of their first line of defense: “I didn’t know it was wrong.”

None of these uses are to be despised – well, maybe they are. Either way, I am convinced that Web-based instruction without human interaction is insufficient for developing the skills that are the most valuable and important aspects of RCR education.

Thank you for your attention.

Notes

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 I would like to thank Jennifer Livesay and Kara Lochridge for their comments on an early draft of this paper.

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