

The Role of Philosophers in RCR Training

Gary Comstock

Department of Philosophy and Religious Studies, North Carolina State University, Raleigh, NC 27695-8103

Thomas Edison is often credited with creating the first research laboratory.^a Legend has it that when a new hire asked about the rules of the lab, Edison responded with a wisecrack: “We don’t have rules. We’re trying to accomplish something.”

What do we try to accomplish in research? Research has an exciting objective, for in it we are trying to ask and answer the most difficult questions known. Notice how different this goal is from the goal of training young researchers in the responsible conduct of research (RCR). Here the aim is indeed to *train* people to *obey rules*, almost as if we were training a pet. It’s “no secret,” as Melissa Anderson has noted, “that researchers tend to view instruction in the responsible conduct of research as an annoyance” (1). What is the role of philosophers in this area? Our role is to raise questions about the general approach. Is it working? Are the rules clear and consistent? Is ethics a source of rules and final answers—or of questions and further research?

WHAT IS ETHICS?

Ethics is a research area, a sub-field of philosophy in which we ask questions and look for answers about right and wrong, and good and bad. The study of ethics focuses on harms and benefits, virtues and vices, choices and dispositions, conflicts and agreements, and the justifications of decisions. The three central branches are:

- Descriptive ethics, the empirical study of what people actually do, believe, and value;
- Normative ethics, the evaluative study of how we should behave in particular cases; and
- Metaethics, the philosophical study of the foundations of moral language.

^a This article is an abridged, slightly modified version of the Introduction to G. Comstock, *Research Ethics* (2). Reprinted with permission of Cambridge University Press.

Corresponding author. Mailing address: Department of Philosophy and Religious Studies, 340 Withers Hall, North Carolina State University, Raleigh, NC 27695-8103. Phone: 919-515-3214. E-mail: gcomstock@ncsu.edu.

Descriptive ethics involves psychological, sociological, and anthropological inquiry into ethical values as evidenced by, on the one hand, what people say they ought to do, and, on the other hand, by what they actually do. Metaethicists study questions such as: Where does morality come from? How do we ultimately justify ethical judgments? RCR falls primarily into the area of normative ethics, which analyzes the development of practical standards, and applies them to the following kinds of questions: What topic *ought* I to choose for my dissertation research? What *should* I do if I witness someone cheating? What policies and regulations concerning research *would be the best* for my institution to adopt?

Theories of normative ethics help us to figure out how to behave, giving guidance and recommendations when we face conflicting interests. They do this by giving us the means to make moral judgments, which are prescriptive rather than descriptive. That is, moral judgments tell us not how we in fact act, but how we ought to act. This is important, since we are not always inclined to do what is right. The point here is that a good ethical theory yields answers that are normative, action-guiding answers.

Normative ethics does not just provide one standard according to which one can determine what one ought to do or whether a certain situation is morally good or bad. It posits a number of ethical theories, each with its own standard or standards, and these theories sometimes yield different answers to practical problems. Just as scientific claims are grounded in scientific theories, moral judgments are grounded in ethical theories. Therefore, when considering normative questions, we need to know which theory is in play. A good theory has four characteristics.

I. It is serious.

Ethical issues bother us. Think of the emotional investment you have in your response to legislation that deals with preventative war strikes, discrimination on the basis of race or religion, abortions, gay marriages, sport hunting, or human embryonic stem cell research. When we raise such issues we believe that they deserve to be taken seriously. And we want to be taken seriously when we engage in reasoned argument about them.

2. It is fair.

Ethical theories should give rise to similar judgments about similar cases. That is, they are characterized by fairness. If a theory lets me decide that it is morally wrong for Carrie to drop an outlying data point in a particular paper, but it doesn't have me apply the same judgment to Kwame in similar circumstances, then something is wrong with the theory. Similar circumstances call for similar judgments. If I do not use language in this way, then I am probably not making a moral judgment. If I say dropping data points is ok when my friends do it but not ok when anyone else does it, I am making a claim of preference or taste, not morality. To call an action "unethical" or "morally wrong" simply is to say that the action is wrong for all persons facing similar circumstances.

3. It is overriding.

As suggested in the previous paragraph, moral judgments are sometimes confused with judgments of taste or etiquette. If I say that I prefer bananas to mandarin oranges on my breakfast cereal and that you are wrong to prefer oranges, I don't mean "wrong" in a moral sense. I am not making a moral claim because my claim is not meant to be universal or overriding. It applies only to me. On the other hand, if I say that consuming bananas in the United States is wrong because it supports an ecologically unfriendly and monopolistic form of international agribusiness, I am making an ethical claim. The point here is that whatever theory or source one regards as most fundamental in such matters is one's *ethical* basis, because it takes precedence over other sources of authority, even religious sources.

4. It is systematic.

A good moral theory tells us, in a detailed and comprehensive way, which things are good and bad. What might a theory consider good? Typical candidates include justice, the virtues, pleasure, happiness, human flourishing, a good will, the satisfaction of desires, human rights, obedience to divine commands, and keeping one's word. Likewise, each theory has a corresponding view about ultimate badness.

In sum, any ethical theory worth its salt will be serious, fair, overriding, and systematic. Three theories have attracted the most attention from English-speaking moral philosophers: two forms of deontology—contractualism and rights-based deontology—and utilitarianism, or consequentialist-based ethics. A fourth theory, egoism, describes a minimal moral commitment that everyone surely has and provides a good starting point pedagogically.

FOUR ETHICAL THEORIES

Egoism holds that a person ought to do what is in his or her own long-term best interests. Egoism provides

a ready answer to the question, "Why should I be moral?" For among the many interests that you have, having a successful research career is one of them, and being caught in violation of professional standards will derail your career. Egoism provides a useful perspective from which to engage students in questions about research misconduct because misconduct often has consequences that are contrary to a researcher's interests. A major philosophical problem with egoism, however, is that it fails our first two criteria of good ethical theories. It seems to be neither serious nor fair because it seems to make light of difficult ethical questions and it is arbitrarily prejudiced toward one group's interests (mine).

Contractualism, a deontological theory, provides a strong answer to a second question, "What is goodness?" Contractualism's answer is: reasonableness. The good is found in our nature as rational animals who do things like make promises, and who can be counted on to perform the actions we have pledged to do for each other. Loving parents, friends, instructors, and other mentors teach us to speak and act with courage and honesty—and to give reasons for our actions when we have not acted appropriately. Contractualists urge morally good people to justify to others what they do. Such justification is usually as simple as pointing out that one's action coheres with the terms of a compact one has entered. Because the research careers to which graduate students aspire are governed by norms and principles, contractualism is an apt theory from which to explore issues related to professional codes, authorship, peer review, and the collecting, managing, and communicating of data. A reservation about contractualism is that it seems to make it impossible to criticize the rules and reasons of the group to which one belongs.

Rights theories are forms of deontology, like contractualism. They provide a powerful answer to a third question, "What counts as a right action?" The answer is that right actions respect the dignity of individuals. Rights theorists hold that people are autonomous, that they have the ability to make their own choices, and that others must respect this capacity. Even if someone is using their freedom to make sub-optimal decisions, their decision-making ability must not be overridden. Rights theories advise us not to harm individuals even if our aim is to secure much greater benefits for many others. Because research often involves human subjects, rights theories can be used to structure thinking about the use of humans in research, mentoring, intellectual property, and conflicts of interests. The major weakness of the theory is that it seems to have a difficult time justifying the grounds of human rights.

Utilitarianism provides a different answer than contract theory to the question, "What is goodness?" Here, the good is pleasure or happiness or the satisfaction of interests. Utilitarianism holds that a person ought to do what will maximize or optimize the good, which amounts to the overall best consequences for everyone concerned, and it counsels us to consider equally the like interests of all

individuals affected by our actions. Since research sometimes involves nonhuman subjects, utilitarianism is appropriate for thinking about the use of animals in research, our duties to the environment and future generations, and the wider social responsibilities of researchers. Utilitarianism's major weakness is that it seems to undervalue the weight of our special attachments to those nearest and dearest to us.

Why look at four separate theories? Can all four not be blended into one overarching theory? Most philosophers think that the answer is no because each theory gives different answers to critical questions, the questions of what things are good and bad and which actions are right and wrong. Each theory, then, is a rival of the others because each has different theoretical commitments and normative implications. Indeed, each theory has a school populated with moral philosophers who defend it, a school that also seeks to expose the weaknesses of the competitors. This is not a situation we should lament because disagreements concerning foundational matters exist in every discipline. Healthy research fields are marked by vigorous theoretical arguments. That said, a promising proposal by the late twentieth century Oxford philosopher R. M. Hare suggests a way to tap into the strengths of all four theories.

Hare, a utilitarian, recognized the significance of egoism and interpreted utilitarianism in a way favorable to contractualism and rights theories (3). Influenced by Hare, Princeton ethicist Peter Singer, Hare's student, in a book called *The Expanding Circle*, draws on evolutionary theory to develop a hybrid picture (4). In this work, morality begins with self-interest, extends to one's immediate family and friends, and works outward from there as if in a widening circle of moral consideration in the direction of all human beings and sentient animals. The Hare-Singer picture describes a heuristic that brings order to the scattered RCR topics as well as a method for moral decision making.

RCR TOPICS ORGANIZED AS AN EXPANDING MORAL CIRCLE

Here follows a method of ethical decision making based on the four moral theories. The method, the expanding circle, begins with a consideration of what is in *my* best interests, my own egoistic concerns. Each of us has many interests, and identifying which of your interests is most important to you is not an easy task. It requires rigorous and ongoing self-examination. You'll need to ask, "Who am I? What do I most want to do with my life?" Honest introspection will reveal that the satisfaction of your professional interests is impossible without the satisfaction of the interests of others. To satisfy your desire to obtain an advanced degree and begin your career requires that others satisfy their desires and do their jobs competently, too.

So ethics might start with egoistic concerns (and note that this is a controversial suggestion in itself), but anyone who is a member of a group—and this is all of us—will see that being loyal to oneself entails being loyal to the groups whose memberships give one's life meaning. After all, some

of our interests are inevitably tied up with others' interests. As children, we want to satisfy our own desires, but we also naturally care about our parents and learn to show respect for our siblings.

Nor does the circle end there. Our interests entail others' interests in part because we seek affiliation with others. Hardwired for empathy toward those nearest and dearest, we naturally feel empathy with those like us. Furthermore, we can learn to care about humans who are not so intimately related to us, and even to care about strangers. With proper upbringing, we come to understand that the physical and psychological pains of others hurt them just as much as ours hurt us, that others value their lives as much as we value ours. Believing that all humans are entitled to equal rights is the foundation for laws protecting humans used in research. The same argument can be given for taking account of the needs of the homeless and hungry, wherever they are. The expansion of the circle continues outward toward future human generations. See Figure 1.

But it does not end with our species. For we also protect animals—at least those used in research—to some extent, with welfare laws that require that we replace sentient creatures with mathematical models or *in vitro* models whenever possible. Nor does the circle necessarily end there; some argue that it includes natural ecosystems, recognizing the intrinsic values of the earth and its systems. Arguably, then, even nature itself—its endangered species and habitats—deserves consideration. Where should we draw the line? The answer is up for grabs and a question on which moral philosophers conduct research. The only point we need to

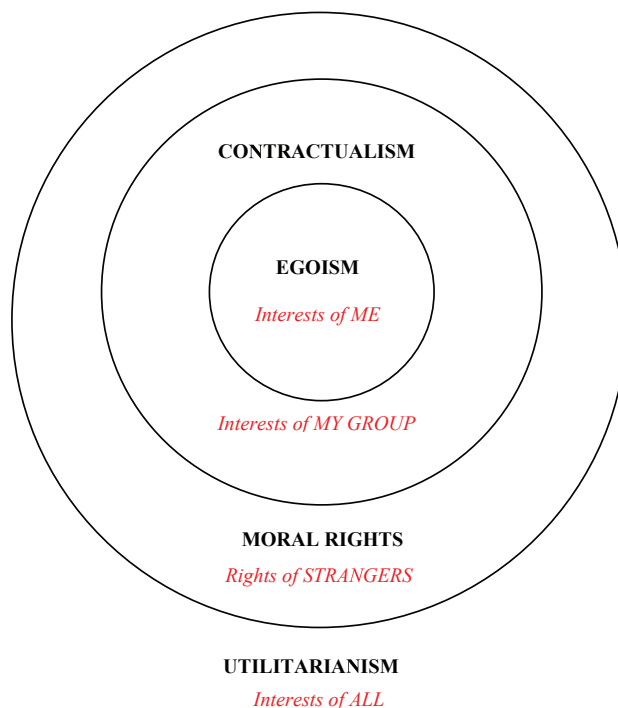


FIGURE 1. The expanding moral circle.

insist upon here is that researchers may begin with their own egoistic concerns but they cannot reasonably end there. The logic of our commitments as professionals requires that we take seriously the interests of others.

The expanding circle lends coherence to the usual hodge-podge of canonical RCR topics. As it is in a person's own interest to report falsification, understand fabrication, avoid plagiarism, beware of intuition, and justify one's decisions, it is useful to begin RCR discussions with the principle that we ought to do what is in our own long-term best interests. As it is in the interest of a person's research group to articulate their reasons for their conclusions, to write cooperatively, review manuscripts professionally, and report statistics transparently, one can introduce the principle that we ought to keep our promises and contracts. As it is a basic matter of rights to respect human subjects, mentor inclusively, recognize intellectual property, and reveal both conflicts of interests and collaborations with private industry, an RCR instructor can introduce the idea that we ought to respect each individual's moral rights. Finally, as many animals can feel pain, are subjects of their own lives, and have interests of their own, we must take seriously our role in their welfare as research subjects. In this last step, we expand the circle fully, considering animal experimentation, duties to future generations and the natural environment, and the larger social responsibilities of researchers while adopting a utilitarian principle: We ought to do what will maximize aggregate happiness. Figure 2 summarizes the approach.

CONCLUSION

The role of philosophers in RCR training is to raise questions and seek answers about right and wrong, good and bad. Philosophers can suggest heuristics by which individuals can make decisions, too. One such method is built on four ethical theories: egoism, contractualism, moral rights, and utilitarianism. The method raises questions about four kinds of interests that correspond to the theories. The standard RCR topics arise in the course of exploring these interests and emerge together as an expanding circle.

Part A. Protect my interests

1. Report misconduct
2. Avoid plagiarism
3. Beware intuition
4. Justify decisions

Part B. Promote our interests

5. Articulate reasons
6. Write cooperatively
7. Protect manuscripts
8. Clarify statistics

Part C. Respect strangers' rights

9. Inform subjects
10. Mentor inclusively
11. Recognize property
12. Reveal conflicts

Part D. Honor all interests

13. Treat humanely
14. Preserve environments
15. Cultivate responsibility

FIGURE 2. RCR topics organized according to the expanding moral circle metaphor.

ACKNOWLEDGMENTS

The author declares that there are no conflicts of interest.

REFERENCES

1. **Anderson, M. S.** 20 May 2009. Supply and demand in RCR instruction. PSI (Project for Scholarly Integrity). [Online.] <http://www.scholarlyintegrity.org/Blog.aspx?blogmonth=5&blogyear=2009&blogid=544>.
2. **Comstock, G.** 2012. Research ethics: a philosophical guide to the responsible conduct of research. Cambridge University Press, Cambridge, UK.
3. **Hare, R. M.** 1981. Moral thinking: its levels, methods and point. Oxford University Press, New York, NY.
4. **Singer, P.** 1981. The expanding circle: ethics and sociobiology. Farrar, Straus & Giroux, New York, NY.