Michael S. Pritchard's Commentary on "A Young Woman's Struggle for Peace"

Commentary On
A Young Woman's Struggle for Peace

This case raises a number of very important ethical issues for graduate students and their faculty advisers and mentors. For graduate students, it raises questions about what, in good conscience, they commit themselves to as researchers. For faculty, it raises questions about their responsibilities in advising and mentoring their graduate students. All of this is complicated by two basic factors: 1) Graduate education is a period of *transition* that invites careful reflection on one's future aspirations, both professionally and personally. 2) Graduate education is a social enterprise that, to some extent, requires students to adapt to a context of inquiry and vocation that is not entirely of their own making.

The first factor is evident in Ann's situation. At the very time that she is undertaking her graduate studies, she is reflecting on her basic values and commitments. The second factor comes into play when Ann realizes that the particular religious perspective to which she finds herself attracted is not one she can assume is widely shared by those in her chosen field of study, let alone in society generally. Regardless of how convinced she may be that the engineering profession for which she is preparing *ought* to share her values, she cannot reasonably expect that profession to adopt her particular perspective. Rather, she must determine whether she, in good conscience, can fit into a profession that embraces a great diversity of views on matters of fundamental importance to individual professionals, and to society in general. That does not mean that members of the engineering profession share no common moral ground, but it does mean that Ann must realize that this common ground will not be a common *religious* ground. Virtually any profession can be expected to accept freedom of (even *from*) religion.

At the same time, advisers and mentors of graduate students need to realize that their students are in the process of sorting out their personal and professional priorities. A professional code of ethics provides a value framework within which

members of a profession are expected to operate. However, at best, a code of ethics will express the highest *common* denominator that may be applied to members. It cannot be expected to do justice to everything that matters morally to individuals in their professional lives. So, although Ann should not expect the engineering profession to endorse pacifism as a moral requirement, it is reasonable for her to expect her advisers and mentors to help her determine to what extent engineering can endorse her right not to participate in engineering research that opposes her pacifism. Nevertheless, for this expectation to be reasonable, she must be forthcoming enough that her advisers and mentors are able to understand that she does have pacifist concerns.

A further complication in Ann's case is that she does not come to understand her own pacifist stance until she is already in her graduate engineering program. Once she does understand it, she still needs to do a lot of sorting out of what she can, in good conscience, undertake as an engineering student. It does not follow as a matter of course for pacifists that they must reject involvement in projects that *could* have military applications as well as civilian ones. Pacifists can debate this issue among themselves, as well as with nonpacifists. How the arguments might go for Ann need not be determined here.

What should be clear, however, is that advisers and mentors have a responsibility to encourage their students to wrestle with questions of personal and social responsibility in engineering *before* they have crossed a threshold that might compromise their integrity.

At this point we can ask how well Ann and Doe have done in meeting their responsibilities. At their initial interview, Ann gave no indication to Doe that she might have scruples about working on projects that could have military applications. Doe gave no indication that among the grants he was pursuing, at least some would be sponsored by the military. It might never have occurred to Ann that the sorts of projects Doe described could have military applications. It might never have occurred to Doe that Ann would have any scruples about working on projects that could have military applications; after all, links between engineering and the military are commonplace. In retrospect, however, both Ann and Doe might wish they had been more forthcoming in that first interview. This is a lesson both can apply to the future.

By the end of the first year of graduate study, Ann sees things differently than when she began. In addition to studying engineering, she has been studying religion, particularly Christianity. Now she has questions that perhaps she was not prepared to ask a year earlier. At the same time, Doe has received a grant relevant to Ann's research interests, the soft photovoltaic. Fortunately, Doe identifies the Air Force as sponsor. Ann then asks questions about the possible applications of this research and wonders whether she should join Doe in working on the Air Force grant.

At this point, Ann and Doe do not seem to have entered into a contractual relationship, either verbal or implicit. How they might proceed from here is yet to be determined. Given Ann's concerns, it is very important that she and Doe communicate as openly as possible about what Ann's role might be. In the end, Ann might decide that she cannot, in good conscience, join Doe in this project. However, if she does agree to join him, this agreement should be based on a clear, mutual understanding of what can be expected from each other. In his desire to have Ann join him, Doe should not deliberately hold back information that might give her reason to turn down the opportunity. Ann, in turn, should not conceal from Doe convictions she has that might dampen his enthusiasm for joining him.

Should Ann and Doe agree that she will work with him on the project, their moral expectations from one another change in fundamental ways. Obligations will have been taken on. There will be a commitment of time, energy, and money. Thus, it is very important that their mutual understanding be as clear as possible *before* crossing this line.

None of this discussion goes directly to the question of what decision Ann should make about whether to work on this grant. It addresses only the question of what should precede that decision. A reflective student will take on the responsibility of trying to resolve tensions between personal convictions and professional commitments. That is what Ann is doing as she goes home. She may benefit from talking further with others - others who share her moral and religious convictions, as well as Doe or other engineering faculty and students. Ultimately, she must decide what she is or is not willing to do. Doe should be willing to offer further help, should Ann seek it. He can also attempt to influence her decision making by overtly or subtly threatening to make life difficult for her as a student at Engineering University should she decline his offer. He should not do that.

This case illustrates the importance of encouraging engineering students to try to think though larger questions about the social responsibilities they will have as

engineers. This, I believe, is a vital part of meeting the ABET requirement that engineering programs should familiarize students with the ethical dimensions of the profession they are about to enter.ABET is the acronym for the Accreditation Board for Engineering and Technology. This board establishes criteria that must be satisfied if an engineering program is to be fully accredited. For a full statement of ABET requirements, see http://www.abet.org/EAC/each2000.html. This effort requires more than acquainting them with engineering codes of ethics. It also requires encouraging students to think carefully about how good a fit there is between what matters to them as moral agents and what an engineering career might entail.