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## **Some Personal Notes on Role Plays as an Excellent Teaching Tool**

### **Commentary on “Using and Developing Role Plays in Teaching Aimed at Preparing for Social Responsibility”**

Iris Hunger

#### **Abstract**

Role plays are extremely valuable tools to address different aspects of teaching social responsibility, because they allow students to “live through” complex ethical decision making dilemmas. While role plays are getting high marks from students because their entertainment value is high, their educational value depends on their closeness to students’ work experience and the skills of the teacher in helping students comprehend the lessons they are meant to convey.

#### **Keywords:**

ethics education, role play, social responsibility

I have used role plays many times in teaching ethics to engineers and scientists over the past seven years, and I agree with Neelke Doorn and Otto Kroesen (2011) that they are “particularly useful for teaching [the] broader and contextualized aspects of ethics”, or probably more correctly, for “living through” those larger aspects. I can also confirm their observation that usually the biggest eye-openers for students are the immense complexity of decision-making processes, especially if the public is involved, and the limited usefulness of “‘objective’ facts” for decision-making in dilemma situations.

Teaching social responsibility has four aspects and role plays can be designed to address all of them, individually or in combination. First there is *raising awareness*. Students need to realize and accept that scientific work has a direct impact on society, and that society influences scientific work. When graduate students are asked why they are conducting a particular research project, they regularly respond with a heavy silence of thoughtfulness. Raising awareness also includes reminding scientists that they are often the first to recognize problematic aspects of their research – if only because they are the ones doing it – and that therefore they carry special responsibility.

A second aspect of teaching social responsibility is *imparting knowledge*. Science and technology can affect many different facets of society: culture, economy, environment, health, law, politics, religion, security, social justice, etc.. Science and technology can have different impacts at the local, national and international level; a positive national impact and a negative local impact can be created simultaneously. Science and technology also have an impact on the development and application of national and international law; at the same time, national and international law create limits on scientific research that scientists need to know about. Acting in a socially responsible way also requires knowledge about political decision-making processes and the different actors involved in political decision making.

A third aspect of teaching social responsibility is *developing students' skills*. Most important is the capacity to think in a problem-oriented (rather than technology-oriented) mode across disciplines. It is rare that problems can be resolved within any one discipline. Instead, people with different expertise work together to develop a solution to a given problem, and then move on to the next problem in a different grouping. Another valuable skill is the effective

use of a three-step-approach<sup>1</sup> in making decisions in dilemma situations: 1) develop options and assess their short- and long-term implications, 2) choose one of the options, and 3) support and defend the choice. The need to be able to explain and defend one's position is something that not all science students readily accept. Science students quite often believe that numbers speak for themselves, which, of course, they do not. Especially when arguing with non-scientists, technical data need to be explained and put into context. A third useful skill is the capacity to adapt to different audiences; the data presented, the arguments used and the mode of explanation is different when speaking to one's own working group or institution in contrast to an international diplomatic gathering, for instance. A fourth skill that it is important to develop is the capacity to bear uncertainty. Most often, there is no ideal solution. There are only several options, each with its individual set of advantages and disadvantages. Instead of concrete recipes for responsible conduct in any possible situation, students need to learn to accept that balancing pros and cons and the conscious selection of a particular option is at the heart of responsible conduct. There will always be uncertainty as to whether the option chosen was the best one, and the possibility that the future will prove a particular choice wrong.

A fourth aspect of teaching social responsibility is *offering concrete practical advice*. That includes providing students with illustrative "check lists" for identifying and assessing the societal impacts of scientific work. Probably more important is to provide students with guidance regarding whom to approach and how when an ethical dilemma arises: where to find reliable information and advice; what complaint procedures exist; which professional organisations can be approached in cases of ethical doubt; who can clarify the legal implications; and, if need be, protections that are available to those who blow the whistle.

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<sup>1</sup> There also exist more detailed step-by-step approaches for ethical decision making, e.g. Swazey and Bird 1995.

Doorn and Kroesen (2011) highlight the importance of observation and feedback, questioning “whether role playing without a proper evaluation can fulfil its learning objectives”. I strongly agree with that. My experience is that role playing on its own keeps learning at a subconscious level – students “feel” that certain decisions are difficult to make, but they do not necessarily know why or what to do about it. To move knowledge from the emotional to the rational level, the role play experience must be discussed and key lessons identified.

Discussing and agreeing on the lessons learned is more effective if the topics of the role plays relate closely to the current or future areas of students’ work. It may be that a case which “is – strictly speaking – not derived from (prototypical) engineering practice” can nevertheless be “a very suitable case for teaching engineering ethics” (Doorn and Kroesen 2011) since students are likely to learn something from a role play whatever the topic. However, the value of a role play is infinitely greater, especially in relation to imparting knowledge and giving practical advice, if the scenario is as close as possible to students’ current or likely future work experiences. At the University of Hamburg teaching staff have been discussing the idea of providing education in social responsibility in two stages: a more general, common curriculum on ethics is followed by discipline-specific role plays.

If universities want to educate, not simply train students for a job, that is, if they do not want to create well-oiled parts of an uncritical science establishment but rather personalities in the true sense of the word, it is essential that universities educate and then encourage science students to bridge disciplinary boundaries. Role plays can be very helpful in this process, although a note of caution is necessary. Role plays consistently get high marks from students in course evaluations. They are interactive, concrete and fun and their entertainment value is

high. Their educational value depends entirely on their design and the skills of the educator, much like with any other form of teaching. As long as there are no comparative studies that prove that role plays are “better” or at least “as good as” other forms of teaching in developing social responsibility, teaching staff should be wary of being tempted to rely too heavily on role plays simply because they seem to make teaching a difficult topic easier.

## **References**

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