Although most attendants of a conference like SEFI are likely to be aware of the necessity of sustainability being more or less the backbone of engineering education, in society criticism has been heard. In the Netherlands, for example, right wing (populist) politicians have been criticizing the self-evidence of sustainability. Considering the number of their voters, this must be taken seriously, also by education institutions. Considering the number of voters, who want to spend less effort in sustainable technology, but also in aid programs for the poorest of this world, it is likely that a number of our students share this criticism.

In this paper, not sustainability as such is addressed, but an ethical concept closely related to it: responsibility. An engineer feeling in some way or another responsible for a broader circle of people, whether living now or in the future, is more likely to participate in sustainable engineering compared to someone lacking this feeling of responsibility. Two workshops have been developed in order to trigger the reflection on this ethical concept of responsibility. The objective of these workshops is the awareness of one’s own opinions in this matter.

The two workshops articulate the thoughts of two contemporary philosophers, Hans Jonas (1903 – 1993) and Peter Singer (1946), who have both developed ideas on responsibility. Their thought is summarized briefly at the beginning of the workshops and from that point onward students discuss the ideas, using the World Café Concept [1], which gives every individual participant an opportunity to participate and put forward his or her own reflections on the matter.

The workshops both start with a brief summary of the main argument of the philosopher. Hans Jonas has become famous with his work Das Prinzip Verantwortung (1979) in which he develops an imperative for the modern era [2]. Jonas is strongly aware that modern technology (e.g. nuclear technology) has unprecedented opportunities but also unprecedented risks for the future of mankind and nature.
mankind doesn’t take action (take responsibility) a future for mankind is by no means secure. He tries to develop a consistent and future oriented ethics, which preludes the Brundtland statement. Instead of putting our trust on future generations, especially in their (superior) ability to cope with possible consequences of our actions, Jonas articulated his so called heuristics of fear: we must be aware of the grimmest of scenarios, emerging from our behaviour, and therefore take the necessary actions without delay. We have to act in a way that future existence of mankind is not jeopardized.

Peter Singer does not search for an imperative, like Jonas does, but he tries to develop a utilitarian ethics, equally rigid as the ethics of Hans Jonas. While Jonas is concerned mainly with future existence of mankind, Singer’s main concern are those living now, both human and not-human, in inhumane conditions. Using a simple thought experiment, that of someone passing a pond, while a little child falls in with the risk of drowning, he starts his argument [3, p. 3 and 4, p. 199 – 200]. We ought to help a child drowning. When we know suffering exists and we have an opportunity to help, without putting our own lives at risk, we ought to help. Following a simple utilitarian calculus, we can argue that a bit less luxury in the west is a cost incomparable to the gain of the number of lives saved. If we accept the idea that all suffering is of equal value, it makes one responsible for others, even if one does not know this person. His or her suffering in itself is enough reason to help.

After the brief introduction to the thought of Jonas and Singer, the group of students is divided in small groups of four persons each, and they are asked to discuss the ethics, first from the perspective of a willing listener, to see if the argument is really clear. After that, students get the opportunity to articulate their criticism, which can be discussed afterwards, in a plenary session.

After the plenary session, two new rounds of discussions in small groups are held in order to discuss the consequences of the ethics discussed for personal development as an engineer. During the discussions in small groups, statements are written down on cards, which are afterwards collected by the moderator.

During the week after the workshop, students are asked to evaluate the workshops, both the form and the content. Using these evaluations, the workshops are revised for possible future use.

REFERENCES