

**Title:** Using Embodied Critical Thinking (ECT) in environmental education to help with emotionally challenging topics and diverse student backgrounds

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**Abstract (984 words):** In this presentation I describe some of my experiences with using the methodologies of embodied critical thinking in environmental education and the results as seen from my perspective as well as those of the students. I will be referring to two different courses, one that focuses specifically on climate change and a broader course on environmental ethics. In these, critical embodied thinking, personal reflections and attention to feelings and affect were used explicitly in various ways with remarkable impacts on student engagement and outcomes.

In the first case, the course “Coping with climate change” (HSP602F) focused on climate change from the perspective of humanities, social and political science, including the possible social and natural consequences and how to deal with them. This topic can be emotionally challenging, and our emotional reactions affect the way we read and interpret the texts: a negative emotional reaction can lead to resistance and unwillingness to accept the conclusions or to overwhelming despair. Climate scientists and communicators have long asked for help from humanities and social science because, in the word of Susanne Moser, “neglecting the emotional reception of climate-related news makes communication and outreach efforts more likely to fail.” Furthermore, many young people are already suffering from climate anxiety and the goal of this course was to help them navigate the topic in a way that helps them face the challenge without adding to any mental suffering. Throughout the course, students were encouraged to pay attention to and be open about their emotional reactions to the texts and discussions as climate change scenarios and analyses were discussed from different perspectives.

The theoretical argument from the beginning was that the way we imagine the future in the present shapes the future by affecting how we act, so students were encouraged to reflect upon how their emotional states and attitudes impact their actions regarding climate change mitigation/adaptation. I present the results in the words of the students who described “profound personal growth” as they went from feelings of anxiety and panic to caring and being concerned in more “relaxed” and focused ways. A necessary condition for this success was that although the course had a heavy reading list it was not graded - we cannot expect students to write openly and honestly about their emotions while at the same time judging these emotions with a number. An added discovery was that allowing the students to write for themselves also resulted in more constructive and honest reflections on the course and the texts which is of great benefit to the teacher.

In the second case, the course “Ethics of Nature” (HSP722M) is a required philosophy course for students in the international Environment and Natural Resource programme in which students are introduced to various topics in environmental ethics. The problem is that it is a big course with students from many different backgrounds, both geographically and academically. They come from different fields and different educational systems and not all are experienced or even interested in reading or thinking about philosophical texts, so it has been a challenge to design a syllabus and teaching method that enables us to reach and engage them all. The approach we used was to make gradual changes over a course of a few years in which we de-emphasized the focus on standard philosophical arguments and terms and categories. In their place we utilized a phenomenological approach where the starting point is the students’ lived experience in relation to the different topics: how do they feel and what are their bodily sensations when they are in nature, eat food, interact with animals, etc? Rather than relativistic individualism this approach quickly leads to reflections about their own connection to the rest of their environment, locally and globally. This approach has

the benefit that everyone is on an equal starting point – we all have access to our own experiences and sensations regardless of prior education.

This method does require some training of both teachers and students in order to overcome initial reluctance and enable an atmosphere of trust, so in the course time was also spent on practical exercises that enable the students to discover and talk about their “felt sense”. The primary goal of the course is not to teach students about historical philosophical debates and concepts but to inspire them to think philosophically and critically about environmental topics and we have experienced increased success in this mission as evidenced from both the quality of the student assignments, which have improved remarkably and become more reflective and engaged, and of the student evaluations in which especially students from the natural sciences have expressed gratitude for the opportunity to have a course that encourages reflection and creativity.

In both of these courses, critical embodied thinking was used explicitly in various ways with remarkable impacts on student engagement and outcomes. Embodied critical thinking (ECT) is a concept developed from the research project ECT at the University of Iceland ([ect.hi.is](http://ect.hi.is)) and developed further in the interdisciplinary European Erasmus+ training program Training ECT ([trainingect.com](http://trainingect.com)). This presentation will also briefly introduce some of the core theoretical and scientific background that supports the educational approach of ECT. The main conclusions are that allowing and encouraging students to pay attention to their embodied and affective reactions to a text or topic removes the emphasis on abstract arguments and instead centres the lived experience of being in and being part of nature and society in ways that make environmental education concrete and relevant. Connecting the topics in each students’ personal experience is both inspiring for the students and the teachers and it has the educational benefit of anchoring the lessons and discussions which is not always the case for courses that are more premised upon memorization of texts and concepts. It creates bodily memories they can carry with beyond the final exam into their further studies and life in general, which should be the goal of education.