# Sigtuna Think Piece 4
## Climate Change Education in Relation to Selective Traditions in Environmental Education

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## Abstract

*In this paper the development of climate change education is related to three traditions of environmental education in Swedish schools: fact-based, normative and pluralistic traditions. These traditions are discussed from two perspectives; first that climate change is a political concept connected to different interests, ideologies, priorities and strategies; and second that compulsory education has democratic responsibility and should be carried out using democratic working methods to prepare pupils for active participation in civic life. It is stressed that the pluralistic approach has many advantages as it recognises the political dimension of environmental and sustainability issues and the same time, strives to avoid the risks of indoctrination by promoting students' critical thinking and their democratic action competence. Finally the paper recognises a number of questions important to address in further research such as the relativistic attitude of a pluralistic approach and the meaning of such an approach in educational practice.*

## Introduction

The purpose of this paper is to discuss the development of climate change education in relation to fact-based, normative and pluralistic traditions of environmental education in Swedish schools. The advantages and disadvantages of these traditions are judged from two normative premises; first that climate change education should be able to handle the political aspects of climate change; second that climate change education should take the democratic responsibility of compulsory education as a concern.

The first premise relates to the fact that climate change is not only a scientific concept that concerns measurements of temperature changes and models for predictions of emissions and their consequences. It is also a political concept in the sense that it is value laden and that the use of the concept is connected to different interests, ideologies, priorities and strategies. This means that although there might be agreement on that the climate is indeed changing and that the sources are anthropogenic (IPCC, 2007), ways of valuing the consequences in terms of the seriousness of the threat, the best actions for balancing mitigation and adaptation and the willingness to make changes to improve the situation, will differ. Conflicts between different values perspectives are seldom possible to resolve by simply referring to scientific investigations. To find ways for common strategies we are thus forced into negotiations and making compromises which can be regarded as both reasonable and morally acceptable.

Climate change as a political concept relates to many of the tensions within sustainable development in late modern societies in general and can be understood as a struggle between two opposite positions (see Sandell, Öhman & Östman, 2005; Fergus & Rowney, 2005; Jabereen, 2006; and Sumner, 2008). On the one hand are the mainstreaming of environmental and sustainability issues and reorientation of the market economy, which often is labelled as ecological modernisation (Hajer, 1995; Læssø forthcoming). Here there is a focus on the negative consequences of development through treatment technology, legislation and planning. On the other hand there is an alternative thinking perspective questioning development itself and the very foundations of Western modernisation; neoclassic market theories, material growth and the international export economy. Instead alternative production systems (decentralised and based on ecological knowledge), and alternative consumption patterns (with a focus on fairtrade and solidarity), are advanced. One of the main challenges thus facing climate change education is how we prepare coming generations to deal with value-related differences and make agreements, compromises and changes.

The second premise relates to the specific demands the democratic responsibility of compulsory education imposes on educational practice when facing this challenge. In the Swedish school system the democratic role of education has been a central curricular theme ever since the school commission of 1946 (see Englund, 1986, 2001). Even though there has been a historical wave motion between a focus on knowledge and a focus on citizenship, democracy presents an obvious reference point when new perspectives or issues such as climate change are about to be implemented in the curriculum. The democratic concern can be illustrated by quoting from the introduction to the Swedish Agency for Education document 'Curriculum for the compulsory school system, the pre-school class and the leisure-time centre Lpo 94', in which it is stated that 'Democracy forms the basis of the national school system', while further on in the text it is declared that 'It is not in itself sufficient that education imparts knowledge of fundamental democratic values. It must also be carried out using democratic working methods and prepare pupils for active participation in civic life' (The Swedish Agency for Education, 2006:5).

However, the relationship between democracy and education is not unproblematic. A classical problem that has concerned philosophers and educationalists ever since the idea of democracy saw the light of day in ancient Greece is the paradox between the double educational assignment to foster free, autonomous subjects and at the same time transfer foundational values and norms of a particular culture to future generations. This paradox is indeed accentuated when working with climate change education: how to create a commitment to resolving or halting climate change but still leave room for free opinion-making?

## *Environmental Education as a Basis for Climate Change Education*

Traditionally, complex environmental issues similar to climate change have been included in environmental education. It therefore seems reasonable to suggest that climate change education should build on and develop the experiences of environmental education. This does not mean that climate change education is necessarily simply an extension of environmental

education, since it is interesting to probe what the question of climate change brings to environmental education. My point here is that educational practices are continuous, and that the development of a practice can be seen as a process through which prior experiences, habits and customs are involved and transformed. In earlier studies (Öhman, 2004, 2008) I have suggested that the variety of ways of teaching about environmental and developmental issues can be viewed as different selective traditions. The term 'selective tradition' was originally developed by Williams (1973) to underline that a certain approach towards knowledge and a certain educational praxis are always selected within the frame of a specific culture. The selective traditions represent different answers as to what constitutes good teaching in a subject, and includes different practices concerning the selection and organisation of the subject matter, as well as the selection of forms and teaching methods. In the studies referred to, three different selective traditions within environmental education were identified in Swedish schools: a fact-based tradition, a normative tradition and a pluralistic tradition. The question is, to what extent are these different traditions appropriate as a starting point for the progress of climate change education given the premises indicated above? In the following I will make a brief presentation of the three traditions and then continue with an assessment of their possibilities.

## Selective Traditions of Environmental Education

### Overview of selective traditions

In the fact-based tradition, teachers primarily treat environmental issues as knowledge problems. This tradition is based on the idea that environmental problems can be dealt with by means of more research and information supplied to the public. The position taken is that only science can provide a reliable foundation for our knowledge about environmental issues and that scientific facts and models have sole importance in an educational context. The democratic role of education is to provide objective facts as a basis for the students' opinion-making. The democratic process is therefore something that comes after education.

The formation of the normative tradition can be viewed as an answer to the fact-based tradition's shortcomings concerning value-related content. This tradition is built on the idea that it is possible to derive norms from scientific facts. The answers to value-related environmental issues are accordingly established through deliberative discussions among experts and politicians and are presented in policy documents and syllabi. Schools are then obliged to teach students the necessary environmentally friendly values and attitudes and, in this way, attempt to change the students' behaviour in the desired direction and support an environmentally friendly transformation of society. The democratic process is in this case thus something that comes before education.

The pluralistic tradition can be seen as a post-foundational alternative to the fact-based and normative approaches. This tradition is characterised by an endeavour to mirror the variety of opinions on sustainability informing contemporary debate about different questions and problems relating to the future of our world. The students critically examine the knowledge basis, interests and values behind the different opinions. Compared with the normative approach, where the democratic process is something that concerns experts and politicians

and advances education through negotiations over the curriculum, the democratic process is rather something that is situated within education itself. Thus, rather than an attempt to promote a preconceived idea of what constitutes a sustainable society, the principles for a fair and environmentally sound future are displayed, exchanged, deliberated and agreed upon in the educational process.

### Advantages and disadvantages of the traditions

The strong point of fact-based education is that it is well established, easy to assess and clearly based on reliable scientific descriptions, models and facts. This focus creates good possibilities for the students to develop a solid and common knowledge basis concerning climate change and its causes. The problem with this teaching is that the climate change problems easily appear merely as objective descriptions. The risk is thus ignoring that the understanding of these problems are intimately connected to values and interests. Furthermore, students generally do not gain much experience of participation in discussions in which different perspectives are critically evaluated or how to transform their standpoints into action. The resulting democratic-action competence is therefore likely to be rather poor. The fact-based approach can thus be seen as a limited basis for climate change education both in relation to the premises that an appropriate climate change education should be able to deal with the political aspects of climate change and that it should take the democratic responsibility of education as a concern.

In contrast with the teachers within the fact-based tradition, teachers working within the normative tradition pay attention to the political dimension of environmental issues. These teachers take a clear political stand and they see it as their mission to promote the norms they find pro-environmental in their teaching. With suitable teaching methods this kind of education can create a strong commitment to issues from students, and effectively influence them towards more climate-friendly attitudes and behaviour. The problematic side of this teaching is of course how to be sure of which values are the really environmentally friendly ones and how to ascertain what appropriate solutions to complex issues involving environmental as well as economic and social (including cultural) aspects might be. By delivering specific answers to value-related issues the normative approach runs the risk of turning education into a political tool to create a specific predetermined society and to decrease the very foundation of democracy – the diversity of ideas and opinions. This means that there is a danger that education will lose its critical and emancipatory potential and its democratic obligation will be violated; the result being that education then resembles indoctrination (see the warnings of Wals & Jickling, 2000; and Jickling, 2003).

In relation to the fact-based and the normative, the pluralistic approach seems to have many advantages as it recognises the political dimension of environmental and sustainable issues and the same time strives to avoid the risks of indoctrination by promoting students' critical thinking and their democratic-action competence. Rather than preparing for a democratic life after school, a climate change education that builds on pluralism makes formal education one of the arenas in society where different value judgements concerning our common future are discussed. By not treating the values of climate change as fixed but subjects for

constant discussion, pluralistic approaches to climate change education can allow for difference, dissonance and conflicts to arise and be deliberated.

Such a pluralistic approach relates to the pragmatic philosopher John Dewey's (1916/1980) view of democracy as a life form, which in recent years has attracted a lot of attention in Swedish curriculum research (Englund, 2006; Säfström & Biesta, 2001; Gerrevall, 2003; Larsson, 2007; Englund, Öhman & Östman, 2008; Öhman, 2008). These researchers have emphasised democracy in terms of a communicative activity and that the ideal of democracy is not a situation in which people relate to each other by declaring and defending their preconceived standpoints, but rather a situation where people create new possibilities by influencing each other. In relation to this view of democracy, education is understood as a forum in which people with diverse backgrounds can communicate their different experiences and, accordingly, continuously reconstruct their experiences through common meaning-making processes. Communication is here seen as the means of reaching a deepened, nuanced standpoint where several different possibilities have been explored and valued. In this way education plays a significant role in the maintenance of the democratic life form.

## Further Questions

Although a pluralistic approach may solve many of the problems connected to the two premises, this approach also gives rise to a number of questions important to address in further research.

To begin with there are questions about the relativistic attitude of a pluralistic approach: if one strives to illuminate different opinions about value-related issues in educational practice, could this be interpreted as all alternative actions being equally right and all values equally good? And if everything is equally good and right – that anything goes – how might commitment to important issues be encouraged?

From a philosophical pragmatic perspective an answer to such a critique has been rejection of the idea that the true and the good are something absolute which can be discovered. For pragmatists this is rather something that is created in human communication (Hickman, 2009), and as Rorty holds, in human interaction relativism is rarely a problem: 'One cannot find anybody who says that two incompatible opinions on an important topic are equally good' (Rorty, 1982/2003:166).

Still, there are several important objections that can be raised to the pragmatic claim that concepts like truth, virtue and morals can only be understood against the background of the cultural context in which they have been created and developed. Does this not mean that we are giving a privileged position to those who belong to a certain culture, simply because of their so belonging? Is there not a risk that this will merely conserve established patterns of thinking? What are the consequences if the cultural context is oppressive to both humans and nature? And so on.

A possible answer to such a critique is to claim that this way of defining what is true and good is only valid on the basis of an undistorted conversation. The question is what kind of criteria such a conversation must meet, and how those criteria are to be justified. Are these norms contingent as Rorty (1989) claims or is it as Habermas (1990) and Benhabib (1992) hold

possible to reconstruct such norms, making them valid beyond historical and local contexts? (For a discussion between Rorty and Habermas on this issue, see Brandom, 2000.)

Even if we would come to an agreement on the criteria for deliberative conversations it still would be possible to claim that due to differences in background, people would have unequal possibilities to participate in such conversations. On the one hand this is of course a problem and an important task in climate change education should be to give all students an opportunity to develop basic scientific knowledge about climate change problems. On the other hand difference is also the very condition for communication and it is by experiencing difference that we can learn something new. The challenge for both democracy and education is accordingly not to create unity and consensus, but rather to make plurality and diversity possible in a shared, local and global community. Striving for sameness and conformity would not only exclude those who do not fit the standards of normality, but would also reduce the number of possible solutions to future problems.

Other important research questions concern what a pluralistic approach means in educational practice. There are a number of recent and ongoing Swedish studies in the field of ESD research that all relate to pluralistic approaches that hopefully will contribute to the development of climate change education processes. There is not enough space here to detail this research but I would just like to mention some of the questions that have been addressed in these studies: what strategies do teachers adopt in their planning, when they select methods and content, and how do they contextualise the teaching content? (Sund, 2008); what actions (questions and comments) do teachers use in order to create a pluralistic learning environment in the classroom? (Rudsberg & Öhman, forthcoming); what power structures can be indentified in the classroom and how are norms created in practice? (Öhman & Öhman, 2009); how can the process of moral meaning making be described? (Öhman & Östman, 2007, 2008); what are students learning in deliberative conversations, how do they develop their democratic-action competence? (Rudsberg, Öhman & Östman, 2009); what are the students' experiences of deliberative conversations in school? (Gustafsson & Warner, 2008); what importance do aesthetics and values have in meaning making about environmental issues? (Lundegård, 2008).

Finally, it is essential to keep in mind that pluralism appears to be a useful vantage point for the development of climate change education given the two premises of political aspects and democratic responsibility discussed above. In other cultural and historical contexts other premises may be more relevant. Furthermore, the idea of pluralism and deliberation is in itself a specific norm, connected to the ideals of the Enlightenment and the development of humanism and liberalism in western European philosophy. Important questions in further research are therefore what a pluralistic approach may mean in other parts of the world, how it can adjust to these contexts, and what alternative approaches they may offer for climate change education development (see Larsen, 2008). It would be both dangerous and contradictory to determine pluralism as being the ultimate way of practising climate change education, rather than one of many possible solutions.

## Notes on the Contributor

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