Abstract

This paper puts forward an alternative view on sustainable development, arguing that the separation between the economy, the environment and the social in the Brundtland model obscures the societal character of the economy, the economic bases of the social, and the fact that the environment is a societal product. We differentiate between strong and weak sustainability arguing that the threat of environmental degradation can only be addressed at the level of the relations of production, consumption and political relations. Building on this perspective, we advocate a form of transformative environmental education which engages learners and teachers in a process of self-reflective transformation. We illustrate this through two examples: action competence and Boal’s Theatre of the Oppressed.
The Rhetoric of Sustainability and Sustainable Development

While the science of climate change is increasingly uncontested (IPCC (2007), this cannot be said for our technological, political, economic, and educational responses which are all an essential part of sustainable development, whose meaning and the means of achieving it are subject to dispute. Sustainability and sustainable development have become highly contested concepts which have come to mean whatever we want them to mean. Over a decade ago it was claimed that that there were in excess of 300 definitions of sustainability and sustainable development (Dobson, 1996). Jickling argues that “Only a thin sliver of the definitions had the capacity to lead citizens to challenge fundamental assumptions. ..........But in the larger picture, we might ask, who is most successful in co-opting the discourse? Whose interests are being served?” (Jickling, 2005: 251).

The way in which the term sustainable development entered official documents sheds light on its character as a compromise between social movements, governments, and transnational corporations. Alain Lipietz, economist and leading member of the French Green Party recounts the story:

‘The original idea of ecodevelopment began from the observation that the development model of the seventies entailed too much consumption of raw materials and produced
too much waste. The (...) United Nations Conference on the Environment, in Stockholm in 1972, endorsed an ecodevelopment model in which local communities were supposed to guard against these two errors. (...) (...). One of the preparatory meetings (for the Rio conference 1992) was the United Nations Commission for the Environment, presided by Mrs. Brundtland (...). The commission immediately ran up against the opposition of the United States, which refused any discussion of ecodevelopment. It was permitted to say that the needs of the present generation should be satisfied without compromising the possibilities of successive generations, and to call this demand "sustainability." But the term "ecodevelopment" was taboo, to the extent that it connoted the end of unbridled free trade, the prohibition of the exploitation of one territory by another, and so forth'. (Lipietz, A. 1996 http://www.uwex.edu/ces/ag/sus/html/sustainable_development.html (Accessed 6 March, 2007).

Sustainable development has become a hegemonic concept enabling different and even antagonistic groups to formulate their goals within it. As Lélé, and later Sachs, expressed it succinctly: ‘Sustainable development is a “metafix” that will unite everybody from the profit-minded industrialist and risk minimizing subsistence farmer to the equity-seeking social worker, the pollution concerned or wildlife-loving First Worlder, the growth-maximizing policy maker, the goal-oriented bureaucrat, and therefore, the vote-counting politician.’ (Lélé, 1991: 613); ‘Just a quick glance, however, reveals that the formula is designed to maximize consensus rather than clarity.’(Sachs, 1999: 76). Holmberg and Samuelsson maintain instead that sustainability should be seen as an ‘ever-evolving concept’ and therefore should not be defined more precisely (2006:8). All concepts are evolving over time, but this includes a
constant attempt at clarifying them, because for the purpose of research we need clarity rather than a consensus based on confusion.

From weak to strong to transformative sustainability – discussing critical perspectives

Concepts of sustainability and sustainable development are subject to criticisms and suggestions in terms of providing consistent perspectives for action. Huckle and Sterling (1999) differentiate between weak and strong sustainability around the question: how is sustainability to be achieved? They define weak sustainability as a form of retaining the societal relations which have been responsible for environmental degradation. Drawing on their differentiation, we would argue that weak sustainability does not question the forms in which production is controlled\(^1\); it claims that market forces can bring about a sustainable society.

By contrast, strong sustainability challenges the freedom of corporations to decide at will what and how they produce and has no faith in the uncontrolled workings of the free market. It seeks not only to change the character of products and the ways of producing them (i.e., CSR and government programmes like the UK Government’s Market Transformation Programme) but also questions the idea that economic growth and sustainability are easily reconcilable (Shiva, 1992).

\(^1\) In Capitalist societies it is private ownership that restricts more participatory forms of control, whereas in the former State-Socialist societies it was state ownership that was similarly limiting.
As stated by the IPCC (2007: 2) ‘Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea level.’

Neither weak sustainability nor its translation into weak environmental education (see below) will solve the immense challenges we are facing. We would therefore like to make a contribution to what is called strong sustainability. The term strong sustainability itself is not ideal, as it provides neither a clear goal nor clear guidelines as to how it is to be achieved. One can strengthen anything, including the status quo. Therefore, we prefer the term transformative sustainability, which signifies that we need to think about how to fundamentally change the social conditions which have led to environmental degradation.
Learning to live sustainably on this earth is non-negotiable as the earth’s resources and capacities for absorbing and accommodating anthropogenic impacts are finite. On the other hand, except at the level of survival, our wants are relative, insatiable and negotiable because they are the product of political, cultural, economic and social developments. This point of departure makes it possible to generate certain questions, which have to be answered in order to know how to tackle environmental issues in relation to the social conditions within which they exist. The Brundtland model (1987) was an attempt to go beyond a narrow focus on the natural environment and to incorporate the three interlinked spheres of the environment, economy and the social into the goal of sustainability.

There are several problems with this model. First, the three areas are treated as separate entities, meeting only in the middle to form a harmonious whole. But can we envisage an economy that is not constituted by and constitutes specific social relations? As Sauvé argues: ‘In the conceptual framework of sustainable development (...) the economy is viewed as a separate autonomous entity, outside the social sphere, that determines a society’s relationship to the environment’ (2002:3). For instance, a subsistence society has different economic goals and creates different social relations as opposed to a capitalist society. Can we think of the social without its economic basis and of the environment without considering the way in which “nature” (that is everything that is
usually considered as existing outside society, like ecosystems, animals, plants, the
earth) is socially produced (Smith 1998)? Second, the overlapping three elements
suggest that a state of harmony can be achieved, while, if we accept for a moment the
separateness of these dimensions, their relationship is one of conflict and contradictions
rather than harmony. Third, analysing the world by separating these three categories
serves to encourage us to treat them separately and independently in practice as well.
What the Venn diagram reflects is the way in which these areas are determined by
different logics in our societies: the economy is governed by the need to make profit,
while in the social the concern is with mending the wounds that the economy produces
for humans. In the environment it is nature which needs to be protected from its
exploitative use. But it is precisely this compartmentalisation of goals that obscures the
social relations within and between them. A number of authors have situated their
analyses and perspectives of sustainability in a theoretical framework that overcomes
that compartmentalisation, namely looking at the broader societal structures that
determine unsustainable forms of production and consumption. We refer to them shortly
in the next chapter.

**Critical approaches to Sustainability**

One of the main criticisms put forward against weak sustainability is that it takes
societal structures for granted. Huckle argues that ‘Dominant capitalist (and former
State collectivist) economic systems put production and wealth accumulation before
environmental protection and conservation, while associated political systems, such as
social democracy, have limited powers to enforce more sustainable forms of
development.’ (Huckle, 2000). In a similar vein, Luke suggests that environmental
education ‘must unravel the complicated cycles of production and consumption, (...) and this unravelling must show how these cycles are verging upon almost complete chaos. Highly planned programmes for economic growth are creating many unintended and unplanned outcomes of environmental destruction, boosting society’s already high ecological risks to even higher levels.’ (Luke 2001: 199). Burkett suggests Marx’s critique of political economy as a basis for existing social movements: ‘The demand for more equitable and sustainable forms of human development is central to the growing worldwide rebellion against elite economic institutions (...) But this movement needs a vision that conceives the various institutions and policies under protest as elements of one class-exploitative system: capitalism.’ (2005: 2) As opposed to this, Benton argues that each of the past ‘historical forms has its environmental contradictions, (...) it is a mistake to suppose that capitalism is the root of all ecological evil. I think it can be shown that capitalism is a mode peculiarly liable to ecological crisis, but it must not be forgotten that other modes too, have their own distinctive ecological crisis-tendencies.’ (1989: 81). Benton suggests that in order for Marxist theory to be a productive tool for the analysis of social/nature relationships it is necessary to include the analysis of the concrete, material labour process. Castree (2002) maintains that authors trying to formulate a ‘Green Marxism’ have not been able to avoid the nature-society dualism, due to their philosophical roots in realism or critical realism. He offers an approach that combines the insights of Actor Network Theory (ANT), namely that the relationships between things and humans are mutual and that each process of interaction between things and humans has to be analysed in its specificity, within a Marxist critique of political economy.
While we agree with and build on many of the insights developed by the authors above, we think that it is necessary to connect the analyses of the production process with analyses of the relations of consumption and the political. In addition, it is necessary to develop analytical tools that enable us to include other power relations into the analysis, like the relations of gender, “race”, ethnicity, age and other social positions with the issue of sustainability. Feminist ecologists like Mary Mellor (1997) have made advances that need to be taken into account. Equally, the environmental justice movement takes issues of gender and ethnicity into account, demands a just distribution of social goods and emphasises the need to prevent the poor and disadvantaged groups in society from being the ones who are most heavily impacted by environmental degradation (Taylor, 2000). However, for Taylor, environmental justice is distinguished from sustainability simply by adding to the issue of protecting the environment, a formidable list of groups whose rights need to be concerned without redefining the concept. Taylor argues for the just distribution of goods but does not address the social relations under which goods are produced and the inherent injustices already present, due to the lack of control workers in particular and civil society in general have over the production process.

The authors discussed so far have made important contributions to the ways in which nature and environmental degradation are socially produced. Other critical approaches to sustainability have concentrated consumption. Kasser (2002) presents overwhelming evidence showing that the pursuit of materialist goals makes people unhappy and unhealthy. While these and other approaches generate fruitful knowledge, they leave the comprehensive view of sustainability to the Brundtland model, since they address either political economy, or consumption, or the relationship between women
and nature. We need a model that enables us to look at these relationships in a comprehensive way and which integrates spatial inequalities, like the North-South divide as expressed in the concept of power geometries (Massey, 2003), hyperopic evaluations of global environmental problems (Uzzell, 2000) and notions of place attachment and place identity at the local level (Uzzell, Pol and Badenas, 2002). In order to understand the interconnection between the different levels of social relations, from the top of global organisations down to the everyday life, we need a model that allows us to differentiate between diverse areas of human life, without draining them of their social character and assuming that they exist independently of each other. Such a model can also form the basis of a transformative environmental education, because it allows learners (pupils and adults alike) to understand their situatedness within the broader set of relationships that constitute the environmental issues they are addressing.

The preliminary model that we are proposing, building on the aforementioned work, aims to arrange societal relationships that have been discussed in other contexts in a new way. This re-arrangement can provide a point of departure for different kinds of research as well as for an environmental education that focuses on the everyday life of learners, allowing them to bring in their knowledge, the conflicts and contradictions in their lives and to situate them within a broader model of societal relations. The model aims to provide a general framework for asking broader research questions. It should not be seen as providing answers to those questions nor should it be read as a list of principles to be followed, as for instance the ones Huckle provides in his suggestions for education for sustainable development (2006:21). In the following we will present the model and discuss its implications for a transformative environmental education².

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² Some of our referees asked us to ‘show our colours’ - to say whether our ideas are Marxist and in which
The following image visualises the set of relations we suggest make up the global body politic. They feed off, contradict and melt into each other, and constitute a global space that is fragile and in tension; it can merge into a whole but is also constantly in danger of falling apart. Their relations are not ones of determination, but rather of co-constitution. We do not think that there is a determinant “in the last instance”. Rather, which relation is more determining depends on particular temporal-spatial constellations.

****** Figure 2 here *****

*Relations of production*

Instead of discussing ‘the economy’ in terms which suggest it is a neutral entity independent of human actors and universally the same in all societies, we propose the term ‘relations of production’. It understands the economic as inherently social by considering social actors and their respective roles within the context of the economy. Research questions that can be posed within this framework are: who is involved in...
producing goods? Who decides about the goals of production, and their environmental and social costs? Who has a say in which goods are produced and how? Could environmentally damaging production be halted if the workforce is included in the decision-making processes? Royer and Gereluk (2002:3) argue that if workers had more rights to decide about the production processes in which they are involved, this might have a spillover effect into their behaviour as consumers. Wasteful consumer behaviour can be a result of a sense of powerlessness, of a lack of influence over one’s living conditions. To increase people’s influence in any area of their lives can thus lead to a more responsible behaviour in other areas as well.

If the workforce were to take part in decision making processes this would also have environmental education implications. Education would become an essential element of the relations of production. This in turn implies that environmental education would have to include an understanding of the unequal power relations governing production processes (i.e., the priority given to shareholders’ views over those of the workforce). It would also necessitate investigating the ways in which current relations of production re-produce gender, class, ethnic and spatial (locally, regionally and globally) inequalities and conflict. Thus, what is relegated to the realm of the social in the Brundtland model would have to be discussed as part of the relations of production.

*Relations of consumption*

In the theories presented above, the emphasis was mainly on the relations of production and the labour process. We suggest examining relations of consumption as an area that
can be analysed in similar ways as the relations of production. Consumption and changing consumers’ behaviours in more environmentally friendly ways are the focus in UK (and other) governments’ policies for sustainable development. Consumption is often seen only as the sum of individual actions, which can retrospectively influence production through demanding environmentally friendly products. We propose the term ‘relations of consumption’ to indicate that there is another more powerful and power-driven relation between consumption and production; producers invest enormous energy and resources to create a demand for their products. Consider the contradiction: in 1999 advertising expenditures for US food products was $7.3 billion (Harris et al, 2002). In contrast, in the same year the US Department of Agriculture spent $333 million on nutrition education, evaluation, and demonstrations (Gallo, 1999). The alleged power of consumers can always be countered by the power of producers and retailers who can act in a more unified and organised way than the mass of disconnected individuals with their differing interests and ways of life.

Relations of consumption include power relations within the sphere of consumption. Bourdieu (1984) has analysed how consumption processes are part of the re-production of class relations. Norms of beauty, body fitness, and fashion are invented and applied to make sure particular social groups (i.e. women and young people) consume as much as possible in order to become what is mythologised as a successful individual. The concept of relations of consumption allows us to look at what is usually called “consumer behaviour” in a non-individualistic way, that is, to look at the economic, cultural, and spatial contexts within which individuals consume. It introduces the element of everyday life into an analysis of sustainability that is missing in accounts which focus only on the relations of production. It implies investigating the decisions
about the ways in which consumer goods reach, or do not reach, the consumer.

Looking at relations of production and relations of consumption simultaneously allows us to draw links between ways of producing and ways of consuming as for instance suggested by Bauman:

“The search for individual pleasures articulated by the currently offered commodities, a search guided and constantly redirected and refocused by the successive advertising campaigns, provides the sole acceptable – indeed badly needed and welcome – substitute for both the uplifting solidarity of work-mates and the glowing warmth of caring-for-and-being-cared-by the near and dear inside the family home and its immediate neighbourhood.” (Bauman 2007: 30)

**Political relations**

The political, i.e., the process of decision making, is not explicitly articulated in the Brundtland model. It seems to imply that consensus rather than conflict is the *modus operandi* for reconciling the social, economic and environmental. However, this does not encourage us to see political relations themselves as in need of transformation. If we want to work towards a sustainable society we need to include the structure and functioning of political institutions and the way people relate to them into the programme of transformation. In this sense, the concept of ‘social sustainability’ can be interpreted as being self-contradictory since the existing social relations, including the political ones, have produced the very situation with which we are faced and therefore should not be sustained. Societies are constantly changing. What we need are structures that allow for democratic participation in shaping those changes. We need constantly
changing forms of sustainability because sustainability is itself not an unchanging condition and state. While we emphasise the need to scrutinise political relations to enable decision making possibilities from below, another aspect of our model is not to relegate the notion of democratic decision-making to the realm of the political alone, but to include it into the relations of production and the relations of consumption. Demanding participatory practices that include the setting of agendas - not only participation in realising them - should also be central to a transformative environmental education (after Moscovici, 1976) as we explain in the remaining part of our paper.

**Implications for a transformative environmental education**

In the UNESCO *Bulletin of Environmental Education* (1996) a reorientation from ‘environmental education’ to ‘education for sustainable development’ was advocated. Since then many arguments for and against this reorientation have been raised (Lotz-Sisitka, 2004; Sauvé, 2002). Where do our arguments sit within the ongoing debate concerning the relationship between - or the mutation of - environmental education into education for sustainable development (ESD)? Robottom (2007), drawing on academic and governmental literature, argues that ESD rests on the three pillars of ecology, society and economics and sees sustainability existing at the intersection of these three interests, thereby mimicking the classic Brundtland sustainability model. If, on the basis of the argumentation put forward in this paper, the three pillars of sustainability fall down, then ESD as it is currently conceived comes crashing down with it. Moreover, as Dobson (1996) has argued, the emphasis on what should be sustained has been dominated by economists. Robottom suggests that ESD can be ‘a comfortable term in that it suggests a continuation of what we value and what
works for us. There need be no real challenge in the idea of sustainability - we can relax in the comfort of a continuation of our current living conditions……..In other words, the language of ESD, like that of environmental education, serves as a three-dimensional slogan” (Robottom, 2007: 94).

A dialectical theory of learning

When we speak about a transformative environmental education we imply that the relations of production, consumption and the political relations are the processes which produce the specific environment and that they are therefore part and parcel of a transformative environmental education. If education is to meet the challenges we have identified and develop teaching and learning practices that focus on enhancing children’s and adults’ understanding of the relations of production and consumption, then it needs to be based on theories which focus on the ‘dialectical interaction between the social world and the changing individual’ (Newman, Griffin and Cole, 1989). Vygotsky’s dialectical theory of development considers learning as requiring conflict-generated problem solving in which education provides opportunities for resolving dilemmas (Vygotsky, 1978). Such problems are located in society, the immediate environment of the child. The individual, the social group and societal conditions co-exist in complex ways and can only be defined with reference to each other. Pupils and adults must not only transform the conditions under which they relate to and impact upon the environment; there is also a need to transform the more general relations of production and consumption under which all actions take place. Through changing the social conditions under which they live, individuals also change themselves and vice versa: “The materialist theory concerning the changing of circumstances and of
education forgets that circumstances are changed by human beings and that the educator needs to be educated.” (Marx, 1888/1962: 5, our translation).

Environmental education cannot reduce itself to teaching about the environment as if environmental problems are simply the result of technological problems or maladaptive consumption behaviour through the unconscious, uninformed, malevolent, inconsiderate or errant actions of individuals, or to tutor the developing child into becoming the ‘Good Consumer’ as assumed in the weak sustainability model. The goal of environmental education should be to encourage people to formulate and understand in more comprehensive ways what they know through their experience in the everyday, thereby revealing the structural relations and ways in which we are all part of reproducing these relations through our daily practices.

If we want to achieve transformative sustainability this demands fundamental changes and a broadening of democratic structures that engages people in formulating goals not just in realising them. Environmental education which wants to support such changes, needs to be transformative itself, that is, it needs to transform the relationship between learner and teacher. Dominant forms of environmental education aim mainly to transmit information. This is true even of some supporters of strong sustainability (see for instance Huckle 2006). Thus, they re-produce within the learning situation (willingly or not) the existing relations of power, constituting learners as consumers, instead of acknowledging them as actors in a transformative process, which includes not only themselves but the societal conditions within which they act.

In Table 1, we specify some implications of the differences between weak and
strong forms of sustainability for a transformative environmental education.

**** Table 1 Here ****

Alternative notions of knowledge and the learning processes - Action Competence

Action competence encourages learners to engage with the world by asking critical questions such as how, why, where, and who, and engage in ‘authentic’ as opposed to ‘as if’ situations in which they make decisions about what they want to change and what actions are necessary to bring about change (Jensen and Schnack, 1994). It seeks to avoid the moralistic, values-driven approach of much environmental education. Learners endeavour to develop a theoretical understanding and concern about environmental problems; it involves understanding the problems sufficiently to develop possible action strategies. An environmentally competent person is consciously solution-orientated, drawing on critical analyses of societal-environmental problems from both natural and social sciences. It requires a positive approach to co-operative decision-making, a respect for democracy and an understanding of participatory processes leading to sustainable actions within the context of people’s own lives and environment (Uzzell, 1994). For this reason it has much to commend it, but as a tool it would be much enhanced if it incorporated competences in transforming power relations.
Hillgaard & Jensen (2000) describe how the children of Gandrup School, employing an action competence approach, tried to secure a swimming pool for their community. Despite receiving praise for their engagement and competence by the municipality, the municipality decided not to build a swimming pool arguing that they did not have the financial resources. Although their project failed, Hillgaard and Jensen report that the students were not disappointed and remained determined to put forward their project at the next possible occasion. While praiseworthy, this example demonstrates forcefully that although learners may engage with real problems in a participatory way, the right and power to decide is still in the hands of others, whose interests may not be in sympathy with those who are trying to bring about change. Accepting that the local municipality does not have the finances for a new swimming pool and receiving the gratitude for their efforts only teaches students one thing – they are powerless. That they accepted the decision without further questioning and only decided to try again, could be seen as democratic behaviour. Equally, however, the students could have been encouraged to ask questions about the municipality’s budget – to question and challenge the priorities of those in power. How are decisions about the budget made? Where does the municipality’s money come from? The learning process could then have been carried further to the political and economic relations determining budget decisions. As Jensen and Schnack (2006) point out later themselves, a negative reaction from those in power may lead to feelings of powerlessness and indifference, but it can also lead to the pupils developing and realising the need for collective action, such as working with social movements and community groups. Individuals and groups may be positively disposed to act in sustainable ways, but they are usually not engaged in processes with develop skills necessary to deal with, for example, social conformity pressures, which discourage change. Equally, they are usually not taught how to deal
with power relations, which resist change. The Boal model, which we discuss later, deals especially with the latter. If the aim of action competence is to enhance the capability and capacity of pupils to act at a societal as well as a personal level and to understand through action the political process, then environment-based action competence needs to educate pupils not only in personal powers but also in relational powers.

The value of action competence is that environmental issues can be conceived within a broader environmental, social and political context of causes and consequences. For example, biofuels have been advocated as a technological solution to the problem of carbon emissions. Once their production is understood at a more global level it becomes obvious that planting crops to produce fuel simply serves the interests of feeding cars in the ‘North’ rather than people in the ‘South’. Thus we can learn that technological solutions do not happen in a vacuum, but within existing unequal power relations locally and globally, which are reproduced if they are not tackled simultaneously. Action competence has the potential to provide for a more transformative environmental education as the individual’s understanding moves back and forth from the concrete to the abstract, the scientific to the political and economical, the local to the global and the causes and consequences of personal and societal actions. But if action competence is to be truly transformative it has to recognise the power relations involved in the production of environmental degradation. Jensen and Schnack recognise that ‘If environmental-based action competence among other things means that insight into solving environmental problems requires social and structural changes, then major demands are put on the teacher’s ability to put individual actions and their potential into perspective, both locally and globally.’ (2006:480). Because of the difficulty of challenging such
structures, which they see as barriers to change, they suggest ‘... we need to learn more about how different barriers are put into perspective so that the education does not solely lead to powerlessness and indifference.’ (ibid. 481) A learning method that addresses this potential powerlessness is Augusto Boal’s ‘Theatre of the Oppressed’.

_Augusto Boal: The Theatre of the Oppressed_

Boal’s self-empowering learning technique enables a form of education which encourages and enhances people’s capacity for action by enabling them to experience and better understand the way in which they are not only oppressed by but also part of structural relations of power. In the Forum Theatre, the animators (or ‘difficultator’) perform a short play on a specific issue, such as racism, domestic or industrial conflicts or environmental pollution.

> “Theatre is a representation and not a reproduction of social reality. FORUM-THEATRE presents a scene or a play that must necessarily show a situation of oppression that the Protagonist does not know how to fight against, and fails. The spect-actors are invited to replace this Protagonist, and act out - on stage and not from the audience - all possible solutions, ideas, strategies. The other actors improvise the reactions of their characters facing each new intervention, so as to allow a sincere analysis of the real possibilities of using those suggestions in real life. All spect-actors have the same right to intervene and play their ideas. FORUM-THEATRE is a collective rehearsal for reality.” (Augusto Boal, 2004)
Participants - *spect-actors* - begin to realise that they know something that matters. Moreover, through trying out different forms of challenge and resistance people learn to understand and thus start to overcome their own participation in sustaining power relations by un-learning self-subordination. As Boal explains:

> ...*what is important for me is not exactly the solution that we found, [but] the process of criticizing, observing and trying to find solutions. Even if we don't find any solution at the end of Forum Theatre, I say, "OK, it's good. We did not find that solution, but we looked for it."*  (Boal, 1996)

It is the process of finding solutions that enables people to make the link between their everyday lives and the power relations in society at large. With his approach, Boal aims to unleash the capabilities of self-reflection and self-transformation of individuals in a way that enables them to challenge power by experiencing powerlessness not only as imposed from above, but also as a product of self-subordination. Paradoxically, it is precisely the insight that powerlessness is partly self-made, that has the potential of overcoming it. Of course, as with any method including action competence, there is never any guarantee that it will work as intended. There are examples where the method is being used in the area of sustainability. For example, Norfolk County Council introduced Boal’s approach as a method for learning about sustainability: [http://www.artsustains.norfolk.gov.uk/index.htm](http://www.artsustains.norfolk.gov.uk/index.htm) (accessed May 25, 2008). Their goal is ‘... to support and encourage participatory learning styles as opposed to “delivery” methods: learner participants as opposed to learner consumers’. They felt that there was a need for new forms of learning.
Concluding comments

In education, learners are often solely seen as individuals without understanding that they are constituted by (and constitute) their social contexts. These include social relations in terms of class, gender, ethnicity, and place, and in a broader sense the national and the global. Taking these contexts more seriously into account would imply building on the knowledge that people have not only to use it as a basis for teaching them the expert knowledge, but also to encourage them to find solutions that are viable within their contexts and at the same time, allow them to transcend the respective limitations of their social positions. Sustainability has to be brought about by the concerted action of everybody, especially empowering those, who have been disempowered or have had little power so far. Therefore, transformative environmental education needs to inspire forms of action in which people can increase their collective control and influence over their living conditions both in the local community but also in society at large. The environment, sustainability, and education are not static things but relationships in themselves - relationships constituted by conflicting interests and unequal power positions. Transformative environmental education should be about finding new forms of democratic participation that aim not to answer given questions but to formulate new questions and redefine problems from the point of view of those who have so far been the objects of education, but need to become its subjects.

In his poem, Praise of Learning, Brecht (1931, 1992: 110-111) formulates this as follows:

*Scrutinize the bill,*

*It is you who must pay it.*
Put your finger on each item,

Ask: how did this get there?

You must take over the leadership.

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