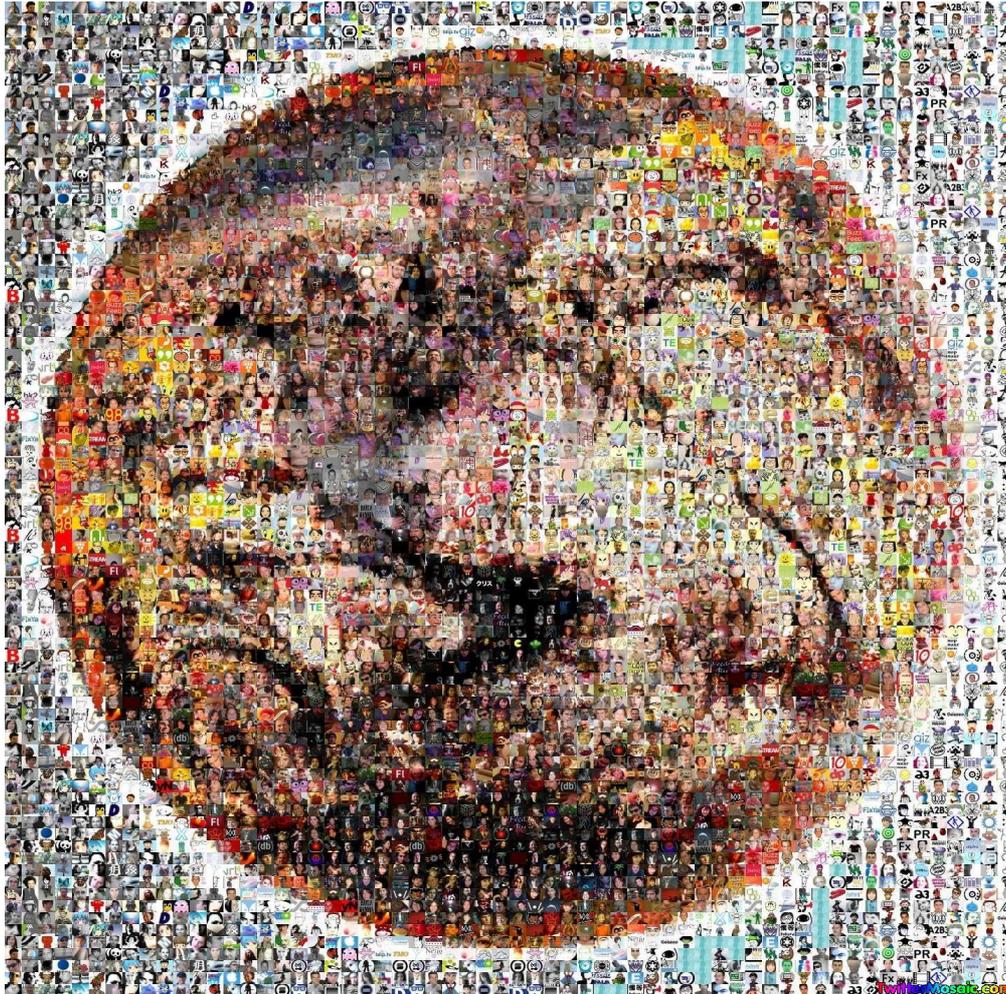


INCORRIGIBLY PLURAL

On what grounds can we acknowledge a diversity of perspectives
in sustainability science?



A thesis submitted to LUMES, the
Lund University International Master's Programme in
Environmental Studies and Sustainability Science

25 May 2009

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ABSTRACT

Despite general references to the importance of social “diversity”, a mainstream has formed in the debate on sustainability, represented for instance by the paradigm of ecological modernization. This thesis represents an inquiry into social diversity based on philosophy and social theory. The aim is to reveal the importance, possibilities and some problems of acknowledging a diversity of perspectives on sustainability. The focus of the inquiry is the field of sustainability science. Its emerging nature and openness to society make sustainability science a new arena for the meeting of a range of different viewpoints.

Different theoretical approaches to acknowledging the diversity of perspectives on sustainability are analysed: William James’ radical pluralism, Habermas’ communicative action, Rawls’ reasonable pluralism, and post-structuralism. An “odd” perspective on sustainability – deep ecology – serves as a test for the workings of these theoretical approaches in the context of sustainability science.

The research shows that the theoretical approaches justify the inclusion of a diversity of perspectives in sustainability science to varying degrees. The main implication for sustainability science is that this emerging field has to change its objectivist outlook in order to serve as a platform for an exchange between perspectives.

KEYWORDS: social diversity, marginal perspectives, mainstream sustainable development, sustainability science, deep ecology, William James, pragmatism, Jürgen Habermas, communicative action, John Rawls, reasonable pluralism

ACKNOWLEDGEMENTS

First and foremost, I want to thank Turaj for being an excellent supervisor. You trusted my ideas irrespective of my background and encouraged me to see this thesis as a learning experience. The lectures and discussions with you have made a major contribution to my intellectual development at LUMES.

I thank my family for supporting my studies in Sweden and always being there for me. A big thank you goes to the LUMES students that were around during the thesis term and kept me connected to the world beyond bookshelves and thesis drafts. Thank you, Olof for organising some fabulous LUMES lunches. Thank you, Lucy for the mind-bugging conversations and hilarious jamming sessions. Last, but not least, thank you Mirjam for the lazy afternoons in the Botanical gardens and the movie nights. You people made me feel at home in Lund.

Louis MacNeice – Snow

*The room was suddenly rich and the great bay-window was
Spawning snow and pink roses against it
Soundlessly collateral and incompatible:
World is suddener than we fancy it.*

*World is crazier and more of it than we think,
Incorrigibly plural. I peel and portion
A tangerine and spit the pips and feel
The drunkenness of things being various.*

*And the fire flames with a bubbling sound for world
Is more spiteful and gay than one supposes -
On the tongue on the eyes on the ears in the palms of one's hands -
There is more than glass between the snow and the huge roses.*

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LIST OF ABBREVIATIONS

ATTAC: Association for the Taxation of Financial Transactions to Aid Citizens

DETR: UK Department of the Environment, Transport and the Regions

DEFRA: UK Department for Environment, Food and Rural Affairs

ICLEI: International Council for Local Environment Initiatives

IUCN: International Union for Conservation of Nature

OECD: Organisation for Economic Cooperation and Development

RCEP: Royal Commission on Environmental Pollution

WBCSD: World Business Council for Sustainable Development

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1. INTRODUCTION

*“World is crazier and more of it than we think,
Incorrigibly plural.”*

My thesis is concerned with the **diversity of perspectives** on changing our society towards environmental, social and economic sustainability. I do not see this diversity as something we need to fix or abandon, but as an inherent feature of the debate on sustainability.

Two decades after sustainable development was popularised, the field of **sustainability science** is emerging with the ambition to contribute to forming a sustainable society. In what follows, **I aim at showing the importance, the possibility, and some related problems of acknowledging a range of different perspectives** in this emerging field.

1.1 The state of diversity in sustainable development

The idea of sustainable development was popularised by the Brundtland report in 1987. Sustainable development was designed as a concept that brings concerns with environmental protection and socio-economic development together. Thus, it attempts to unite the “Northern” environmental and the “Southern” developmental agenda. (Carter 2007) Accordingly, sustainable development can be conceptualised as a project concerned with *environmental, social and economic* sustainability (Harris & Goodwin 2001): In general terms, environmental sustainability entails that human activities must not overexploit natural resources. Social sustainability is given when a system meets human needs equitably and is democratically organised. Economic sustainability means that a system has to provide economic goods and services continuously. (ibid)

Beyond these general (and seemingly neutral) interpretations of the dimensions of sustainable development, many other interpretations exist. Indeed, in its attempt to link social, economic and environmental concerns, sustainable development inherited not only the conflicts *between* these agendas, but also *within* them. Perspectives on environmental sustainability, for instance, range from a focus on technological solutions to calls for a profound societal change. (Hopwood et al. 2005)

In order to provide a platform for these conflicting views, the Brundtland report outlined the project of sustainable development in broad terms. (ibid) The most well known instance of this is the vague definition of sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Carter 2007: 211).

Indeed, the idea of sustainable development appeals to a range of actors and perspectives. Politicians, managers and activists, neo-liberal economists and groups of indigenous peoples have entered the debate. Numerous attempts have been made to categorise this variety of perspectives. (Carter 2007)

The graph on page 2 represents a version by Hopwood et al.: The perspectives are mapped according to how much their proponents are concerned with environmental issues and the socio-economic issues of wellbeing and equality. The authors divide the perspectives

into three groups: Those who think that sustainable development can be achieved within current socio-economic structures (“status quo”), those who call for a gradual change of existing structures (“reform”), and those who see the current state of society as the root of environmental and social problems and call for a radical change (“transformation”). (Hopwood et al. 2005)

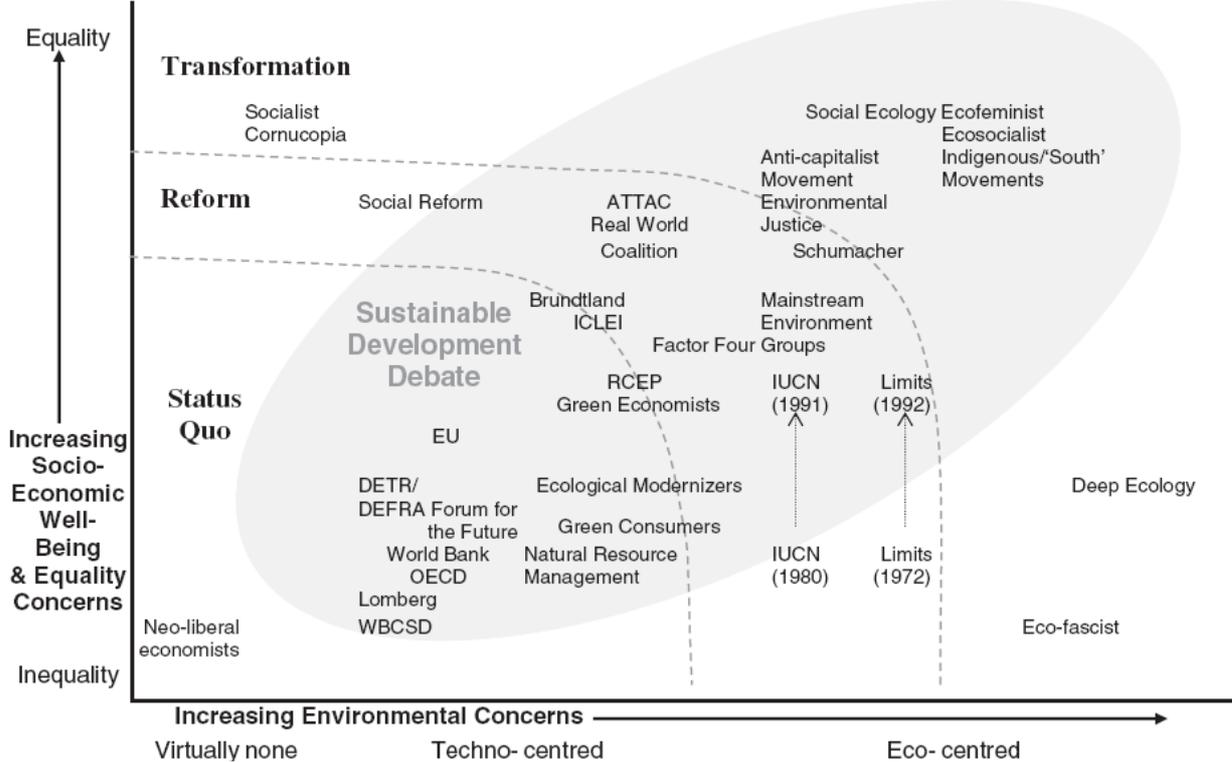


Figure 1: Mapping of approaches to sustainable development (Hopwood et al. 2005: 41); For an explanation of the abbreviations see page iv

Sustainability science, with its ambition to contribute to the transition towards sustainability (Kates et al. 2001), is confronted with the same diversity of viewpoints.

In my thesis, I establish an argument for acknowledging this range of different perspectives. This argument is motivated by the observation that **there is an imbalance in the sustainable development debate**. A “mainstream” has formed that puts other perspectives in a position of minor importance.

In the academic debate, approaches to sustainable development are usually categorised as “weak” or “strong” (e.g. Baker 2006, Carter 2007, Robinson 2004). This distinction, however, does not span all possible approaches but is rather a discussion between economists. “Weak” sustainability implies that all natural assets can be replaced by human-made ones. In “strong” sustainability, human-made and natural capital are not completely exchangeable. (Adams 2001) The issue is discussed in the disciplines of environmental and ecological economics (ibid), which Hopwood et al. refer to as “green economists” (2005: 42). As the graph above shows, this perspective is situated on the border between those who accept the status quo and the reformists.

Another main strand in sustainable development is ecological modernization, which has become the prevalent paradigm for environmental policy making in industrialised countries.

(Adams 2001, Carter 2007, Hajer 1995) Ecological modernization recognises the flaws of current economic and political structures but still believes that the system can cope with environmental concerns. (Hajer 1995) The perspective relies on the workings of technological innovation and the market. (Carter 2007) Thus, it also connects to approaches developed by the “green economists”, such as cost-benefit analysis. The graph above shows that ecological modernization is indeed positioned similarly – with the difference that it is less concerned with equity issues (which is due to the focus of ecological modernization on problems of industrialised nations) (ibid).

While ecological modernization focuses on the greening of production processes, concerns with consumption have been increasingly addressed through “green consumerism”. From this perspective, consumers can influence the activities of businesses by purchasing goods and services according to environmental criteria. Green consumerism has been flourishing, from buying organic food to investing money according to ethical criteria. (ibid) This approach complements the other mainstream perspectives as it also looks for solutions within the current socio-economic system rather than for change.

One could argue that these perspectives prevail since the Brundtland concept of sustainable development itself is, despite its apparent openness to different perspectives, uncritical towards the current situation. As graph 1 shows, Hopwood et al. indeed categorise the Brundtland report similar to the mainstream approaches. For them, the report is “generally reformist in broad tone but leans towards the status quo in proposed details” (2005: 45). Thus, an ideological critique of sustainable development could bring up some reasons for the prevalence of an uncritical “mainstream”.

My contribution, on the other hand, is to show possibilities to bring different perspectives together regardless of their ideological orientation. In particular, I investigate to what extent *sustainability science* can accommodate a diversity of perspectives. In the end, my apparently uncritical venture will still bring up necessary changes in practices and structures to avoid the marginalization of certain ideas.

1.2 Constructing a defence of diversity

The existence of a “mainstream” might be desirable for scholars advocating a clear definition of sustainable development. (Connelly 2007) On the other hand, diversity is frequently acknowledged as an important feature of the debate. In the literature, it is appreciated as keeping up a creative tension in the debate (Carter 2007, Robinson 2004, Kates et al. 2005) and allowing for cooperation between different actors (Hajer 1995). Other scholars derive the importance of diversity from ecological principles: Biodiversity and spatial heterogeneity provide a system with more possibilities to absorb shocks without changing fundamentally. (Adger et al. 2005) This concept of “resilience” has been transferred to social systems:

“Similarly, in social systems, governance and management frameworks can spread risk by diversifying patterns of resource use and by encouraging alternate activities and lifestyles. [...] [T]he diversity of individuals and institutions that draw on reservoirs of practices, knowledge, values, and worldviews [...] is crucial for preparing the system for change, building resilience, and for coping with surprises.” (ibid: 1037)

These arguments are widely appreciated, but still very general or derived from principles that do not necessarily apply to social (or in my case even philosophical) issues. Thus, my argument is based on **philosophical and sociological theories** on diversity. I am going to construct my theoretical framework in **chapter 4**.

Diversity refers to the existence of “a range of different things” (“diversity”, Oxford Dictionary of English, March 2009) – which is in the case of the sustainable development debate a range of different perspectives. **My discussion of diversity focuses on the situation of marginal viewpoints.** If diversity refers to a *range* of different perspectives, why focus on the margins?

“Marginal” can be defined as “unorthodox, removed from the mainstream, having a limited following” (“marginal”, Oxford English Dictionary Online, March 2009). In the sustainable development debate, I define the perspectives calling for a *transformation* of society as marginal. They are the ones that are ideologically most removed from the mainstream (for illustration of this, see again figure 1 above). Since they are not as widely accepted as the mainstream, they make a good *case* for testing the possibility to embrace the range of perspectives on sustainable development. The logic of this is: If we find ways to accept a radically different viewpoint, we will also be able to acknowledge views that are less removed from the mainstream.

Indeed, my instance of a marginal perspective is particularly “odd”: **deep ecology**. This idea is sometimes (as in figure 1) located outside the sustainable development debate¹, and most scholars would agree that it is bound to remain controversial. (e.g. Sutton 2004, Connelly 2007) Furthermore, the abstract philosophy of deep ecology does not seem to be of much importance in the project of sustainable development. I introduce the ideas behind deep ecology in **chapter 2**. Later, in chapter 6, I am going to apply different theoretical perspectives (as developed in chapter 4) to the inclusion of deep ecology in sustainability science. Thus, we will be able to see *to what extent* the theoretical standpoints can defend the acceptance of a range of perspectives.

My focus on marginal ideas, however, is not only of methodological convenience, but it also reveals my ideological starting point. I am sympathetic to the under-dogs and, therefore, agree with *encouraging* diversity rather than taming it. As I explain in greater detail in chapter 4, this perspective is closest to the “radical pluralism” of the philosopher William James. Since I am fond of diversity, and because my research strategy is *reflective*, I am going to enter a debate with a range of other theoretical standpoints. The details of my **research strategy** are explained in **chapter 3**.

Proponents of different perspectives on sustainable development meet in the realm of international negotiations, policy making, and increasingly also in scientific research. The emerging field of “**sustainability science**” represents the ambition of academia to contribute to a “sustainability transition” (Kates et al. 2001: paragraph 1). This ambition necessitates “bringing together scholarship and practice, global and local perspectives from north and south, and disciplines across the natural and social sciences, engineering, and medicine”

¹ Nevertheless, proponents of deep ecology have attempted to enter the debate by making a connection between the philosophy of deep ecology and sustainable development. (see for instance Naess 1989)

(Clark & Dickson 2003: 8060). As I explain in **chapter 2**, this inclusion of different actors also brings about the opening of apparently *impartial* science to different ideological standpoints.

Because of this novelty, and since I am a student of sustainability science, I am going to discuss sustainability science as a meeting place for different perspectives on sustainability². I am going to turn to the question “**On what theoretical grounds can we justify the inclusion of a range of different perspectives in sustainability science?**” in **chapters 4 and 5**. In **chapter 6**, I will outline possible answers to the follow-up question: **Why should we, based on these theoretical approaches, include deep ecology in sustainability science?**

In my final discussion (chapter 7), I analyse what we can learn from my research for the development of sustainability science, and I hope to answer those who regard the diversity of perspectives as an unfortunate feature of the debate on sustainability.

² The term “sustainability” originally only related to environmental concerns. (Carter 2007) In what follows, I refer to “sustainability” as encompassing a social, economic and environmental dimension, as outlined based on Hardin & Goodwin in section 1.1.

2. A PERSPECTIVE ON SUSTAINABILITY SCIENCE AND DEEP ECOLOGY

“...*The room was suddenly rich and the great bay-window was Spawning snow and pink roses against it...*”

2.1 Sustainability science

The ambition of sustainable development – to link economic growth and environmental protection – calls for the discussion of many complex issues, ranging from consumption patterns to the structures of global trade to biodiversity conservation. Since its popularisation, sustainable development has been viewed mainly as a political concept. (Carter 2007) The role of science was to contribute a rational perspective on the issues at stake, be it the state of biodiversity or the limits to carbon emissions. (Yearley 1997) During the last years, however, academia has taken on the more holistic ambition of promoting a “sustainability transition” (Kates et al. 2001: paragraph 1). In their seminal 2001 article, Kates et al. term this new approach “sustainability science” (ibid: paragraph 2). This does not mean that a new scientific discipline is being formed. Sustainability science refers to a number of disciplines that all address issues related to sustainable development. (Clark & Dickson 2003) I do not perceive sustainability science as a mere *actor* in the sustainable development debate (as traditional science used to be), but as breaking with this role and establishing a project *complementary* to this debate. Since sustainability science is still “emerging” (Kates et al. 2001), time will tell whether this notion is correct.

The focus of sustainability science is on contributing to understanding and guiding interactions between nature and society. This specifically involves taking into account interactions between local and global phenomena, the temporal dimensions of processes (that can be slow but still significant), the complexity of natural and social systems, and the scientific *and* social relevance of the results produced. (Kates et al. 2001)

In order to live up to this ambition, sustainability science breaks with the traditional scientific approach. It does not apply standardised methods to solve problems within a specific academic discipline – be it physics or anthropology. (DesJardins 2006) Instead, the research problems are defined by societal needs and addressed by scientists from different disciplines and actors outside academia, such as policymakers or citizens affected by a project. (Kates et al. 2001) Thus, the emerging field of sustainability science allows for cooperation between “different ways of knowing and learning” (ibid: paragraph 2).

This constructivist perspective on knowledge production (Clark & Dickson call it the “coproduction” of knowledge; 2003: 8059) has consequences that **go beyond the need to include different actors in the process**. If the actors *construct* knowledge, we have to acknowledge that the different perspectives on sustainable development influence the outcome: “Facts are the materials of science, but all Facts involve Ideas” (Whewell, cited in Moses & Knutsen 2007: 181).

This means, firstly, that we have to be aware of the different perspectives involved in *any* contribution to sustainability science, including the perspective the researcher holds. This reflective attitude can be seen as the prerequisite for a critical dialogue between different actors. (LUCID 2008)

Secondly, the exchange with a diversity of ideological standpoints cannot solely be based on common sense. The opening of science to new actors and different ways of reasoning, and the complexity of the problems at hand, necessitate new perspectives on theory, methodology, organisational structures, and education. (LUCID 2008) My concern with the diversity of perspectives links to changes in the *theories* applied in sustainability science. Acknowledging a broad range of perspectives brings sustainability science closer to the “*strong transdisciplinarity*” described by Max-Neef (2005): It is characterised by the connection between different ways of reasoning, from natural sciences to ethics, from theoretical knowledge to practical reasoning and intuition. Despite this metaphysical tone, transdisciplinary does not represent the uncritical acceptance of *any* idea. It has to be practiced “in a systematic manner” (ibid: 15). How can we do this? Clearly, the traditional approach of accepting ideas that are communicated according to the standards of a specific discipline is not helpful in the communication across and beyond disciplines. (Nowotny 2008) In my thesis, I discuss some ways of reasoning about the inclusion of different perspectives. Thus, I am going to contribute some thoughts to the emergence of transdisciplinarity in sustainability science. I base my reasoning on philosophical and sociological theories rather than theories of science. This hopefully stimulates some thinking “outside the box” about science that is equally “outside the box”.

Returning to my concern with marginal ideas, finding pathways for accepting other perspectives is not only of epistemological, but also of ideological importance: The mainstream perspectives have found their way to science – ecological modernization, for instance, has been a main driver for strengthening the link between science and policy-making. (Hajer 1995) Marginal perspectives, on the other hand, have had greater difficulties. The knowledge they represent (for instance, indigenous knowledge) and their channels for communication (mostly social movements) are not seen as “rational”. (Yearley 1997) I introduce my instance of a marginal perspective, deep ecology, in the next section.

2.2 Deep ecology

Deep ecology is a perspective on environmental issues that was first developed in the academic writings of the Norwegian philosopher Arne Naess. The concept of “deep ecology” was coined by Naess in his 1972 lecture on “The shallow and the deep, long-range ecology movement” (Naess 1973).

According to Naess, the shallow ecology movement is concerned with pollution and resource depletion in order to maintain “the health and affluence of people in the developed countries” (ibid: 51). This describes the prevalent anthropocentric (human-centred) view in the Western world. (DesJardins 2006) In contrast, the deep ecology movement shows a more holistic (eco-centric) approach to environmental issues: It is not only concerned with human well-being, but respects that all “ways and forms of life” have an “equal right to live and blossom” (Naess 1973: 52).

What deep ecology asks for is a change in ontology, that is, in the perspective on the nature of things. The new ontology would see humanity as intrinsically linked to nature. (Rothenberg 1998) From this philosophical beginning, “ethics and practical actions are to fall

into place” (ibid: 2). In any case, the new ontology would not allow humans to harm nature any more since this would be like “injuring a part of ourselves” (ibid: 2).

In order to arrive at this new perspective, changes at the individual and the cultural level are necessary. (DesJardins 2006) There is, however, no predefined way to arrive at this change. In Rothenberg’s words, we have to get there “using ways of feeling and reasoning familiar to us” (1986: 5). This reasoning is known as *ecosophy*. (ibid)

Apart from providing the starting point for philosophical reasoning about an alternative worldview, deep ecology has inspired a movement working for practical change. (ibid) The basic principles upon which the deep ecology movement acts are summarised in the “deep ecology platform” (Naess & Sessions n.d.). The principles outline the moral and political consequences of the assertion that all life on earth has value *in itself* beyond its usefulness for human purposes. (Maskit 2000) The detailed principles as written down by Naess and Sessions are listed and analysed in chapter 6.2.

The movement uses a variety of strategies, be it arts, spiritual exercises or political activism. (DesJardins 2006) Frequently, the first group associated with deep ecology is Earth First!, known for its radical actions and at times even categorised as a “terrorist group” (Luke 1997: 28-29). This is, however, only one (and perhaps the most radical) instance of the range of social movements inspired by deep ecology. (Brulle 2000)

Deep ecology is a highly controversial perspective. It has been argued that deep ecology, with its focus on a change in ontology, is not capable of producing actual social or political change. Its “neglect of the political and social changes necessary to inform the creation of an ecologically sustainable society” (Brulle 2000: 206) limits it to an idea that one can sympathize with, but not build upon (Luke 1997).

Furthermore, deep ecology draws on many sources of inspiration – Taoism, Gandhi, Buddhism, native (American) religions, Henry David Thoreau, and many others. Therefore, deep ecology has been criticized as inconsistent, too general, and simply “odd”. (DesJardins 2006) It is “eclectic at best. At worst, it becomes unintelligible” (ibid: 219).

Some critics see the potential for fascism in deep ecology. Brulle, for instance, observes “oligarchic structures” (2000: 206) in the deep ecology movement: It is essential in deep ecology to reach consciousness of one’s connection with nature, and those who have reached that level might make perfect “charismatic leaders” (ibid).

Another point of criticism is that deep ecology is too general in blaming all human beings and the dominant worldview as responsible for the state of the planet. With this argument, they do not recognise that poor people use resources for their survival and not out of greed. Thus, deep ecology might be relevant for the North, but not helpful in less developed regions. (DesJardins 2006)

The debate on deep ecology has persisted since the beginnings of the idea, and I do not attempt to contribute to the various points of discussion with my paper. Instead, I use deep ecology as a particularly odd instance of a marginal idea in the sustainable development debate.

Sustainability science and deep ecology might seem as incompatible as MacNeice’s “snow and pink roses” – so how (and why) should we relate them?

3. METHODOLOGY

“...I peel and portion
A tangerine and spit the pips and feel...”

3.1 Research strategy

3.1.1 Basic orientations: Epistemology and ontology

My insistence on the importance of acknowledging a range of perspectives in sustainability science already reveals my *constructivist epistemology*. This view entails that we cannot gain objective knowledge about this world. Any account of “reality” is constructed by the researcher or social actor and therefore influenced by the person’s identity and ideas. (Bryman 2004, Alvesson & Sköldbberg 2000)

Acknowledging different socially constructed accounts of a phenomenon also opens the possibility to seeing the phenomenon *itself* as constructed. Thus, my constructivist perspective applies in epistemology and ontology. Even if I assert that there is neither an objective reality nor neutral knowledge about it, I had to produce research that could also be meaningful to others. Therefore, I had to be able to look beyond my own constructions of knowledge. My research had to be *reflective*. (Alvesson & Sköldbberg 2000) According to Alvesson and Sköldbberg, reflective research entails “interpreting one’s own interpretations, looking at one’s own perspectives from other perspectives, and turning a self-critical eye onto one’s own authority as interpreter and author” (2000: vii). These issues were essential to my work.

3.1.2 Personal involvement

As the author of this paper, I presented deep ecology as a marginal perspective. If the concept of marginality, however, is only a social construct, then there are certainly people for whom deep ecology is the centre of their lives. To experience this shift in perspective, I visited a deep ecology village in Germany. Still, choosing the instance of deep ecology, which mainly operates in affluent countries (Luke 1997), shows my Northern bias.

My research started with my concern about the prevalence of certain perspectives in the sustainable development debate. This concern was certainly influenced by my background in environmental management, which is closely linked to ecological modernization. The contact with different perspectives at LUMES helped to widen my horizon, but also showed me that this wide perspective is easier to appreciate in theory than in practice. This experience motivated me to develop my argument.

Given this personal component to my research, I did not enter the process with an empty mind. As the theoretical discussion in chapter 4 will reveal, my perspective on the issue is closest to the “radical pluralism” advocated by William James. Since my research is reflective and based on a constructivist notion of knowledge production, it was essential to bring this perspective into a dialogue with other viewpoints.

3.2 Research process

3.2.1 Aim and research questions

The aim of my research was to show the importance, the possibility, and the problems with including a range of different perspectives in sustainability science. I used deep ecology as the instance for a marginal perspective, and sustainability science as the instance for an arena where different perspectives meet. I structured my research according to the following questions:

1. **On what theoretical grounds** can we justify the inclusion of a range of different perspectives in sustainability science?
 - What are the basic philosophical and sociological concepts relating to the diversity of perspectives?
 - How can we operationalise them for sustainability science?
2. **Why** should we, based on these theoretical approaches, include deep ecology in sustainability science?
 - How well do the theoretical approaches serve to justify the inclusion of “odd” perspectives such as deep ecology?
 - What general conclusions can we draw from this instance about the inclusion of different views in sustainability science?

3.2.2 Constructing results

As my first research question shows, theories on social diversity were an essential part of my research. I constructed the theoretical perspectives by applying sociological and philosophical theories to the field of sustainability science. The connection between these theoretical perspectives and the *data* on deep ecology and sustainability science was not strictly deductive, but still showed a *deductive tendency*. To answer my second research question, I started with theoretical premises, but I did not use my data (consisting of empirical data and literature) to confirm or reject these premises. I rather used the theoretical premises to bring out some aspects of my data. I then reflected back on the resulting *construction* – by comparing it with alternative theoretical perspectives as well as with the literature on sustainability science.

The result, thus, is not clear-cut but a *critical* account of a *range* of possible answers to my research questions. In the words of Alvesson and Sköldböck, the significance of such an outcome is to provide “knowledge that opens up rather than closes, and furnishes opportunities for understanding rather than establishes ‘truths’ ” (2000: 5). This notion is consistent with a constructivist and reflective approach.

My choice of deep ecology as a case for a marginal perspective might be controversial since it is sometimes even seen as outside the sustainable development debate. So why choose such a difficult instance?

3.2.3 The case of deep ecology

I stated in the introduction that the marginal perspectives in the sustainable development debate are the ones calling for a transformation of society. Deep ecology involves such a transformation, and in a quite radical way: It asks for a change in people’s perspective on this

world so that they can see that nature and society are inseparably linked. In its argument, deep ecology appeals to emotions rather than reason, and the actions of the movement following deep ecology can be radical, including eco-terrorism.

These characteristics point to deep ecology as a *difficult example* of a marginal view on sustainable development. A stance defended by abstract spiritual notions and eco-terrorist acts is not readily accepted in a serious debate on sustainable development. Thus, deep ecology serves well to show the limits of different theoretical approaches in terms of justifying and including a range of different perspectives. Since it was my ambition to *discuss* problems and possibilities with including marginal views as opposed to constructing a general theoretical result, I considered it sufficient to investigate one case. In Silverman's words, the difficult instance of deep ecology is an "instrumental case" (2005: 127) that helps to gain insight into an issue.

A practical reason for choosing the case of deep ecology was that discussions of its philosophy are easily accessible. Thus, I could get a good overview of the ideas behind deep ecology. Since data on the practical workings of deep ecology is not abundant, I decided to visit a German eco-community that builds on the principles of deep ecology. As the next chapter reveals, this insistence on considering the practical effects derives from my initial theoretical "bias": William James' pragmatism. The methodological details and the full report of my field study can be found in the Appendix.

4. PERSPECTIVES ON DIVERSITY I: CONCEPTUALISING DIVERSITY

“The drunkenness of things being various...”

4.1 Debating diversity: Pluralism

Diversity has been referred to as an important element in sustainable development – be it because we need a “broad coalition for sustainable development” (Hajer 1995: 14) or because only a range of different perspectives will enable us to find pathways to a sustainable future (Carter 2007, Robinson 2004, Kates et al. 2005). In my thesis, I aim at going beyond general statements on “diversity”. To facilitate a fruitful discussion of the issue, I first explore diversity from the perspective of thinkers in social theory and philosophy. **Based on this exploration, I will outline some theoretical perspectives on the diversity of ideas in sustainability science.**

As mentioned in the introduction, diversity refers to the existence of “a range of things” (“diversity”, Oxford Dictionary of English 2005). Thus, it is the description of a mere *state*. But how is this state discussed in philosophy and social theory? The question leads us to different theories of *pluralism*. The literal meaning of pluralism is: “A belief in more than one entity or a tendency to be, hold, or do more than one thing.” (“pluralism”, The Concise Oxford Dictionary of Politics 2003)

The concept is used in a variety of fields. The most common application is in political science, where pluralists emphasise the importance of associations rather than the state. Pluralism is also used in the sense of emphasising and preserving cultural differences. (ibid) Pluralist theories in moral philosophy acknowledge more than one ultimate principle at the same time (such as self-love *and* benevolence). (Becker 1992) A more general meaning of pluralism in philosophy is the “tolerance of different kinds of thing, or more particularly of different and perhaps incommensurable descriptions of the world, none of which is deemed to be more fundamental than any of the others.” (“pluralism”, Oxford Dictionary of Philosophy 2008)

These various applications of the concept have two essential characteristics in common (McClure 1992, cited in Schlosberg 1998): Firstly, they argue *against singular conceptions of the political or philosophical realm* – in philosophy against the Absolute, and in politics against the state. Secondly, they insist on the *existence of plurality in society*.

The focus of my thesis is on pluralism in the realm of ideas – thus, I apply the concept in a general philosophical sense. In including proponents of marginal perspectives and academia rather than the state as actors for sustainable development, I also respect the notion of political pluralism.

Pluralism has been regarded by many as a conservative stance: The main concern is on the competition between groups rather than the dominance of an elite over others (as in Marxism, for instance). (“pluralism”, The Concise Oxford Dictionary of Politics 2003) This is, however, not entirely true since the latest generation of theorists in this field represents a more radical account of pluralism. (Schlosberg 1998, Ferguson 2007) The pluralism of *poststructuralist* theorists emphasizes differences as well as the role of marginal groups and ideas. Theorists in this field include the feminist Donna Haraway (arguing for the

acknowledgment of “situated knowledge”), Laclau and Mouffe (presenting a “radical democracy” formed by social movements), Deleuze and Guatari (envisioning a unity resembling a root system that allows difference *and* connection), and a range of other thinkers such as John Dryzek or James Bohman (refining the concept of “deliberative democracy”). These thinkers reconnect to early theorists of pluralism, mainly the American psychologist and philosopher William James, who developed his works around the turn of the 20th century. (Schlosberg 1998)

4.2 Justifications of diversity

The political and philosophical aspects of social diversity have been an issue for many theorists. But why is social diversity important?

The early theorists’ *justification* of diversity is based on the notion of *radical empiricism*. As expressed in William James’ philosophy, this means that reality is what we experience. As experience, however, varies from person to person, it constitutes only a *subjective* reality. (Schlosberg 1998) In James’ words: “My world is but one of a million [worlds that are all] alike imbedded, alike real [...]. How different must be the worlds in the mind of eel, cuttlefish, or crab!” (James 1890, cited in Ferguson 2007: 3) The diversity in experience is the basis and justification of pluralism: Since we might never be able to unify these experiences, James demands that any kind of experience has to be acknowledged as valid. (Schlosberg 1998) Thus, as Schlosberg notes, “the absolutists’ notion of a whole, rational, all-inclusive reality common to all becomes difficult to defend” (ibid: 589).

For James as well as contemporary pluralist thinkers, pluralism necessitates in particular the defence of marginal viewpoints. While James was defending alternative healing practices and speaking up for Philippine sovereignty, contemporary feminist Donna Haraway argues for the acknowledgement of “situated knowledge” and a “feminist empiricism” in science. (Schlosberg 1998, Haraway 1988) Similarly, Laclau and Mouffe defend the response of various social movements to oppression. In this revival of James’ ideas by contemporary theorists, one difference has to be noted: While James was concerned with the inclusion of the *idea* of diverse experiences in social and political *theory*, the current generation of theorists is concerned with the acknowledgment of difference in political (or scientific etc.) *practice*. (Schlosberg 1998) This difference might simply stem from the development that, at least in liberal societies, we have come to accept pluralism as a *fact*. (Benjamin 2003)

Indeed, **the liberal perspective has, apart from the celebration of diversity in postmodern thought, developed as the dominant account of pluralism after James³**. (Ferguson 2007) It is interesting to take a closer look at the view on pluralism presented by classical liberalism⁴ to reveal the differences to Jamesian pluralism.

³ Schlosberg (1998: 584) talks about “three generations of pluralism”: The early pluralists, such as William James, were followed by more moderate theorists trying to accommodate pluralism in a social system, here represented by John Rawls and Jürgen Habermas. The third generation of theorists are the post-structuralists that return to the ideas of early pluralism.

⁴ As represented by Mill and his contemporaries; I will later focus on Rawls’ ideas, whose “political liberalism” represents a further elaboration of the moral underpinnings of classical liberalism. Since I refer to liberalism in very general terms here, I do not see it as necessary to strictly separate these two schools. For an elaboration on the differences, see for instance Ingram 1996.

Liberalism acknowledges that people are different. This is, however, not *good in itself* – rather, considering and tolerating difference leads to the *greater good* of peace. Achieving this greater good requires a mechanism to deal with diversity in a fair way. Mechanisms such as the law or politics serve to negotiate differences. (ibid) Thus, one can say that liberalism “tames” diversity by handling arguments between different perspectives on a supposedly neutral level.

For William James, on the other hand, diversity is *vital* to a system’s “growth, transformation, or self-analysis” (ibid: 11). Thus, he **encourages pluralism rather than trying to tame it**. (ibid)

In my thesis, I stress the importance of the variety of ideas in the sustainable development debate. Thus, the arguments of William James and of poststructuralist theorists connecting back to him are most consistent with my starting point.

Before I turn to the issue of how to handle diversity (and the exploration of liberalism has already given us one answer), I want to address a crucial question: Does taking a pluralist stance mean that one has to embrace *all* ideas?

4.3 Limits to diversity

William James was very open to all kinds of ideas, so that he even appreciated the views of those who disagreed with him. After all, a Utopia without friction and disagreement would have seemed boring to James. (Ferguson 2007) Nevertheless, James did criticise issues of his time: the US imperialism, the racist lynchings, but also killings that society accepts for punishment or protection (such as the death penalty). (ibid) What these issues share is that they are based on a centralised decision on what is “right” or “wrong” – taken by the US government, by a mob (encouraged by racist laws), or by the majority of “civilised” people. How does James’ aversion to *systems* or mechanisms that subdue differences translate to the abstract realm of *ideas*?

Per definition, pluralism has to be open to a wide range of perspectives. Jamesian pluralism asks exactly *this* of the proponents of an idea: To be open to the diversity of other perspectives. (Smith 2004) For sure, this entails more than *tolerating* other ideas (which would be a liberal notion). Following James’ insistence on the importance of arguments between ideas, I regard the **willingness to communicate across differences** as the essential criterion. Thus, ideas that *represent* the ignorance of diversity, such as racism or fascism, do not have to be embraced from a pluralist stance. (The question if and to what extent a dialogue with these ideas is still necessary will not be addressed here.) Other ideas might have the *potential* for dogmatism – as noted in the previous chapter, deep ecology is an instance for such an idea – but they enter the debate according to their willingness to communicate with others.

This is a very generous criterion in comparison to the more common liberal stance. John Rawls’ “**reasonable pluralism**” expresses the liberal perspective on pluralism best. (Ferguson 2007) In short, reasonable pluralism accepts ideas that are not based on selfishness, prejudice, ignorance, bad reasoning or bias. (Benjamin 2003) James would agree with excluding ignorant perspectives, but liberalism adds criteria relating to the *attitude* of the proponents (selfishness, prejudice), and to the *formulation* of claims (bad reasoning, bias). Ideas that are

not “reasonable” in this way belong to the private realm (such as religion). (Baghramian & Ingram 2000) The radical empiricism of James and poststructuralists, on the other hand, also brings out differences that are “private”, such as homosexuality.

If diversity is difficult to define, it is even more controversial how we should actually deal with it. The two questions that theorists have been grappling with are: How can we achieve some “unity” across differences? And what process leads us there? (Schlosberg 1998)

4.4 Embracing diversity

From a Jamesian perspective, unity is always in the making – something we move toward, but never reach. The “bits of reality” (James 1909: 201), the different perspectives of individuals, are like parts of a *mosaic*. This formation, however, is not held together and defined by a unifying “glue” or principle (be it “God” or “Reason”). (Schlosberg 1998, James 1909a) In James’ words, “it is as if the pieces clung together by their edges, the transitions experienced between them forming their cement.” (James 1912, cited in Schlosberg 1998: 596) This shows, again, that differences, the *transitions* between the pieces, are more important than commonalities.

Differences would be negotiated in *networks* between people established through, for instance, friendship or knowledge. (Ferguson 2007) In fact, James’ perspective on unity was inspired by “**pacifist anarchism**” (Coon 1996: 81): Community, structure, and temporary rules emerge through people’s interaction so that permanent institutions are not needed. (ibid)

Poststructuralists have used similar concepts to express the link between difference and unity. William Connolly brought up the “rhizome” metaphor (a rhizome is a root system that spreads underground and sends up sprouts in different locations): Individuals are linked by a dense network that allows collaboration in certain issues. The idea of a “network” is often used, for instance in Donna Haraway’s “cyborg community” that is connected through partially overlapping identities. For the “difference democrat” Iris Young, collectives across different identities are created through shared experiences – collectives, though, that are still unstable and loosely defined. (Schlosberg 1998)

These visions are quite different from the liberal “reasonable” approach to pluralism mentioned in the sections above. Still, these alternatives are quite vague, and the question that remains is how to make them work.

William James offers us a *method* to handle diversity: *pragmatism*. The **pragmatic method** assesses “beliefs, ideas and concepts” (Thayer 1975: xxii) by bringing out their practical effects. This derives from James’ notion that the meaning of an idea – be it a simple thought or a “grand” theory – is to guide us through what we experience in this world. (ibid) James describes the pragmatic method like this:

“You must bring out of each word its practical cash-value, set it at work within the stream of your experience. It appears less as a solution, then, than as a program for more work, and more particularly as an indication of the ways in which existing realities may be *changed*. *Theories thus become instruments, not answers to enigmas, in which we can rest.*”

(James 1909a: paragraphs 6&7)

The main use of the pragmatic method is to mediate between conflicting ideas in theoretical or everyday disputes. (Coon 1996) If it turns out that the ideas have the same practical effect, the conflict is obsolete. If there is, on the other hand, a real difference, a critical argument is justified. (Ferguson 2007)

The pragmatic method might be helpful to settle specific conflicts, but how can the actual *process* of cooperation or continued conflict work? The main concern of contemporary theorists of pluralism is to conceptualise this **communicative process**. When it comes to this, no theorist can ignore the intellectual that gave rise to hopes in the workings of communication: Jürgen Habermas.

For Habermas, the goal of a society “free from unnecessary domination in all its forms” (McCarthy 1978: 273) can be reached through communication. He elaborates on this hope most explicitly in his “Theory of Communicative Action”. For Habermas, reason is situated in the speech act. This is because speech as “communicative action” is oriented towards reaching an *intersubjective understanding* of a claim or a situation. (Callinicos 2007) The ultimate goal of communication oriented towards understanding is to reach a consensus. (McCarthy 1978) Consensus or agreement presupposes that the actors involved accept an argument as valid. (Habermas 1982) To achieve this, the speaker has to refer to three types of “validity claims”:

1. that a statement is *true*
(thus, establishing a reference to a real phenomenon in “the world”)
2. that a statement is *legitimate*
(thus, referring to shared norms and values in “our world”)
3. that a statement is *truthful*
(thus, referring to one’s personal intentions – “my world”)
(Habermas 1982, McCarthy 1978)

With the acceptance of these claims, a “background consensus” (McCarthy 1978: 290) is established, upon which consensual action takes place. This *agreement* between actors, however, is the exception rather than the norm. In most cases, the actors are still in the process of reaching intersubjective understanding, i.e. they have not come to accept each other’s “validity claims” yet. What happens in this situation is that the communication is either ended or continued at a different level, as a “discourse”. At the level of “discourse”, all validity claims are hypothetical and thus open for discussion. The final agreement is decided by the force of the “better argument”. Habermas calls this result a “rational consensus”. (McCarthy 1978: 288-292) The *discursive examination* of validity claims has been institutionalised throughout history: In philosophy, modern science, and democratic systems. (ibid)

Habermas’ communicative action is certainly a powerful conceptualisation of communicative processes – but it is not entirely compatible with Jamesian pluralism.

Since James and the poststructuralists *emphasize* difference, the main issue has been whether a *consensus* between different perspectives is possible and desirable. The contemporary theorist Seyla Benhabib, for instance, does agree with the importance of reaching an intersubjective understanding. This process, however, is not geared towards a fixed consensus but open-ended. (Schlosberg 1998)

Other theorists criticise Habermas' conditions for reaching consensus – the “validity claims” or the “force of the better argument”. According to Iris Young, for instance, these conditions exclude more unconventional rhetorical styles such as storytelling or the accounts of less confident or less educated groups. (Schlosberg 1998)

4.5 Summing up: Perspectives on the diversity of ideas

The theoretical exploration of diversity brought up four main perspectives – Jamesian pluralism, post-structuralism, Habermasian communicative action, and Rawlsian liberalism. Table 1 on the next page shows a summary of their leading ideas. I added details on post-structuralism, which I only referred to in connection with William James so far.

The differences between these approaches show best in the society they envision: While Rawls believes in the mediating role of institutions, Habermas envisions a society connected through sincere communication. James rejects institutions more profoundly than Habermas, and ends up with an anarchist outlook.

Poststructuralist theorists share the Jamesian idea of loose connections between people, but they *use the idea in a different way*: James' anarchism builds on the belief that individuals have the potential to construct an alternative to a dominant state. For poststructuralists, on the other hand, the individual is not a fixed entity, but constituted by external forces. (Callinicos 2007) These unstable identities can only be linked through equally unstable networks. Furthermore, these loose networks *define* people and their identities rather than *being defined* by them. (Schlosberg 1998) **Although the poststructuralist outlook might be helpful for detecting the (power) relations between different perspectives on sustainability, it will not allow us to actively construct a connection across differences.** Also, poststructuralists defend the marginal and “odd” perspectives in *any* case. (Callinicos 2007) Thus, they cannot make a contribution to debating *on what grounds* we should include marginal perspectives.

As already stated in the text above, my emphasis on diversity in sustainable development is most compatible with Jamesian pluralism. Thus, I first apply a Jamesian approach in the argument below.

Neither the poststructuralists nor James, however, represent the prevalent approach to diversity: Habermas provides an authoritative theoretical approach to diversity, while liberalism (although not necessarily Rawls' version of it) dominates the political practice. I will not ignore these perspectives but establish a discussion with them. Thus, I will be able to compare the Jamesian answers to my research questions with the more familiar ones, to see how different and viable the answers are. In the next section, I apply the different theoretical perspectives to the field of sustainability science.

Table 1: Summary of perspectives on diversity

	Why should we acknowledge diversity?	On what grounds can we acknowledge other ideas?		How to accommodate diversity?
		When are ideas acceptable?	How to appreciate other ideas?	
James	It is rooted in the variety of individual experiences that can not be reduced	If proponents of an idea are open for communication with others	embrace diversity 1. work out the pragmatic value of an idea 2. if idea is found useful → cooperation; if idea is not found useful → open argument	- Pacifist anarchism - “Network” society
Post-structuralists	It is a result of the fragmentation of modernity & to be embraced as a counterpoint to totality ⁵	When they are radical and can be used to unmask the mainstream ⁶	support the margins in the never-ending power struggle between discourses ⁷	- Loose networks - Radical democracy formed by marginal groups
Habermas	It is a feature of modern societies	If they are communicated with the intention of reaching understanding	reconcile differences 1. exchange of “validity claims” 2. if claims are accepted → consensual action; if claims are not accepted → re-evaluation at the level of discourse;	Deliberative democracy based on “communicative action” ⁸
Rawls	It is a fact in modern societies	If they are “reasonable”	be fair Through neutral institutions; ideas that are not “reasonable” are private matters	Liberal democracy

⁵ Hassan 1986

⁶ Hassan 1986

⁷ Callinicos 2007

⁸ Habermas 1996

5. PERSPECTIVES ON DIVERSITY II: APPLICATION TO SUSTAINABILITY SCIENCE

“... *for world*
Is more spiteful and gay than one supposes...”

We have encountered different theories that provide the basis for arguments *why* we should and *on what grounds* we can embrace a diversity of viewpoints. We even touched upon some mechanisms to make this inclusion work – from anarchism to different models of democracy.

The focus of my research is on the second question, which establishes the actual criteria for acknowledging different perspectives. Before we can discuss these criteria in relation to deep ecology, I first refine them for the context of sustainability science.

5.1 James' pragmatism

How can sustainability science *embrace* a range of different perspectives, as William James suggests?

First of all, a Jamesian stance entails **acknowledging diverse and even conflicting views**. Only those who are not willing to communicate with others can be excluded from the debate. Secondly, we judge the degree to which we can cooperate with proponents of a perspective by applying the pragmatic method: **If the practical effects of a perspective are consistent with what we aim for in sustainability science, there is no need for debating the ideas behind it.**

We can judge the first criterion through observation, but it is more difficult to determine and assess the practical effects of an idea. Thus, I now turn to establishing an analytical framework for determining the “cash-value” of a perspective on sustainability.

Sustainability science is a *normative* venture since it aims at promoting a *transition towards sustainability*. (Kates et al. 2001) There are, however, as many meanings to sustainability as perspectives on it. So can we define a general criterion that describes what we are aiming for?

Achieving sustainability requires *change* – we might call this process of change sustainable development (Lafferty 1996) or a “sustainability transition” (Kates et al. 2001: paragraph 1). What this change involves is in broad terms described by the Brundtland report (adapted from Elliot 2004: 158-159):

- changes in attitudes and norms of behaviour
- changes in political systems (towards democracy)
- a changed quality of economic growth (less energy- and material intensive and more equitable)
- changes in production systems and technology (towards the efficient use of resources as well as higher productivity)
- changes in patterns of trade and finance (towards equity)
- changes in administrative systems (towards flexibility and self-correction)

This list captures a range of possible changes that the practical effects of different perspectives can be measured against.

To assess this change, we also need to know the desired *direction* of change. (Bell & Morse 2003) The Brundtland report indicates this direction in all instances apart from the first one, the “changes in attitudes and norms of behaviour”. This might be because changes in attitudes surface in the form of other changes, such as the use of efficient technologies. These changes, again, do not necessarily have to be due to one’s attitude. Furthermore, the desired changes in attitudes and behaviour are not easily defined. Numerous attempts have been made to pin down the values⁹ needed for a sustainable development. The Millennium Declaration, for instance, mentions six fundamental values: Freedom, equality, solidarity, tolerance, respect for nature, and shared responsibility. (Kates et al. 2005) The ambition of deep ecology to change people’s worldviews makes me start my search for its practical results in the realm of behaviour and attitudes.

The difficulty with the pragmatic method is to *link* practical effects plausibly to a certain perspective on sustainability. This connection is never straightforward: The “mainstream” paradigm of ecological modernization, for instance, has undoubtedly lifted the standards of environmental protection in industrialised countries. (Carter 2007) The success of this “technological fix”, however, has only been possible accompanied by environmental regulations that created markets for new technologies (such as renewable energy technologies). (Jänicke 2008) Thus, we have to be critical about the actual *mechanism of change*. In the case of deep ecology, I expect the *movement* inspired by the philosophy to bring about some practical changes. To establish the possible mechanism behind these changes, I will have to consult studies and theories on the workings of this movement. I am going to investigate deep ecology from a Jamesian perspective in chapter 6.1.

5.2 Habermas’ communicative action

For Habermas, differences are *reconciled* through communication. In the process of communicative action, an understanding of other perspectives, and in consequence a consensual basis for action, are established.

In chapter 2, I referred to sustainability science as establishing a *platform* for the exchange between different perspectives. This conceptualisation implies that Habermasian communicative action should be analysed in terms of the exchange of validity claims (see chapter 4.4. above) between different perspectives on sustainability, such as deep ecology and ecological modernization. I believe that **sustainability science can only provide a platform for this exchange once it has reached a *transdisciplinary* state**. Currently, I perceive sustainability science as a perspective that is *in itself* in exchange with other viewpoints on sustainability. This is why I analyse the exchange of claims *between* deep ecology and sustainability science in chapter 6.2.

Since sustainability science is confronted with a range of different perspectives, from policy makers to activists, we have to be aware that Habermas’ communicative action does not work in every case. Communicative action is a feature of *civil society*, where it serves to mediate between different “value spheres” (and academia is one of these spheres). The

⁹ I take “value” to mean: Something that is considered when making choices and in guiding oneself and others. (“value”, Oxford Dictionary of Philosophy, May 2009)

workings of civil society, or what Habermas calls the “lifeworld”, have to be distinguished from the logics of the “system”. The system – represented by bureaucracy and market economy – works according to the logics of money and power. There is, of course, also communication in this realm, but it is *strategic*. Strategic communication is oriented towards success rather than understanding. (Callinicos 2007: 288-289)

What we learn from this is that **we can only expect communicative action to work in exchange with perspectives rooted in the lifeworld**, such as social movements. In the case of deep ecology, both the philosophy (since it was developed in academia) and the movement (since it is rooted in civil society) meet this condition.

Traditionally, communicative action in academia takes a form that is abstract and separated from its real-life context: *discourse*. McCarthy explains the difference between these forms of communication like this: While the validity claims are rather naively accepted in ordinary communicative action, “their validity is regarded as hypothetical and explicitly thematized in discourse” (1978: 291). In a discourse, the claims of all participants are systematically discussed until in the end a well-motivated consensus is achieved. (ibid) A discourse puts not only the real-world context, but also the actors’ *motivations* for entering the communication aside. The only motive taken into account is the **willingness to achieve an agreement** with other actors – this, again, can only readily be assumed for actors from civil society.

Sustainability science differs from traditional scientific approaches because of its ambition to contribute to real-world action. With this shift in focus from abstract discourse to practical action, sustainability science enters into *communicative action* with actors from civil society in order to debate a specific situation.

In the case of deep ecology, I am going to analyse the possibility for both communicative action and abstract discourse to succeed in chapter 6.2. I already established that deep ecology fulfils the basic criterion for entering both. Therefore, I am going to look into the exchange of validity claims between deep ecology and sustainability science in order to see to what extent an agreement is possible.

An interesting issue brought up by applying the Habermasian perspective is: **How can practitioners of sustainability science communicate with actors that do not represent civil society?** Since businesses and policy makers have taken on a leading role in “managing” the sustainability transition (Carter 2007), this is a crucial question.

For Habermas, the exchange between system and lifeworld is problematic. He observes that the logics of the system are increasingly invading civil society. (McCarthy 1978) The dependence of academia on external funding (as for instance observed by Nowotny et al. 2003) is one instance of strategic considerations entering the lifeworld. To contain this “colonization”, Habermas calls for barriers between system and lifeworld, or a more controlled exchanged between the two spheres. (ibid)

Thus, from a Habermasian perspective it is important to take perspectives rooted in civil society, be it deep ecology or indigenous knowledge, seriously. Only by opening up to these perspectives, sustainability science can **counterbalance the system’s influence**. This, in turn, also ensures a greater diversity of perspectives since the system is more sympathetic to “mainstream” perspectives than marginal voices (Hopwood et al. 2005).

Furthermore, the exchange between sustainability science and system perspectives cannot be based on naïve communicative action. I suggest communication at the level of *discourse*, where the participants' validity claims are subjected to a systematic critique. Discourse, however, still assumes that the participants are oriented towards reaching an agreement. This assumption is not valid in exchange with system perspectives, as they show a strategic orientation. Thus, the exchange with system perspectives also has to be critical towards their *motivations* for entering the communicative process.

5.3 Rawls' reasonable pluralism

From a Rawlsian perspective, we can accept different perspectives as long as they are *reasonable*.

As outlined in section 4.3 above, the reasonableness is decided by the *formulation* of a claim and the proponent's *attitude*. In order to evaluate whether deep ecology can be seen as "reasonable", we need to apply criteria that are more specific.

Ingram (1996) distinguishes between three main aspects of reasonableness:

1. The perspective is *intelligible* in the sense that it represents a consistent reasoning about major aspects of human life, including an account of how to settle real-world conflicts. It establishes a connection to a certain tradition of theoretical reasoning. Overall, the perspective is based on "the exercise of reason" (ibid: 154).
2. The perspective acknowledges the *existence of conflicting views* in certain instances. In some cases (Rawls calls them "burdens of judgement" – ibid: 155), actors cannot come to an agreement because of lack of evidence, different personal experiences, or the complexity of the issue at stake. A reasonable viewpoint has to consider this possibility.
3. Proponents are willing to *communicate across differences* in a way that their claims can serve as a basis for cooperation with others.

These criteria are clearly geared towards the assessment of perspectives in the political realm. Since sustainability science does open up to a politicised debate where different ideological standpoints meet, Rawls' criteria for reasonable pluralism also apply in this case.

Practical results, the exchange and acceptance of validity claims, reasonableness: *To what extent* can these approaches *justify* the inclusion of perspectives such as deep ecology in sustainability science? I am going to investigate this issue in the next chapter.

6. NEGOTIATING INCLUSION IN SUSTAINABILITY SCIENCE

“Soundlessly collateral and incompatible.”

The “odd” perspective of deep ecology serves as my test case for the theoretical perspectives outlined above. Based on the findings from this case, I am going to discuss the possibilities and problems with the inclusion of a diversity of perspectives in sustainability science.

6.1 James: The cash value of deep ecology

In this section, I establish the Jamesian argument based on data and theories relating to the *movement* following the philosophy of deep ecology. The argument relates to, firstly, the willingness to communicate and, secondly, the practical effects of the movement. The starting point is provided by my observations during a visit to a deep ecology village in Germany.

The village “Siebenlinden” (“Seven Lime Trees”) was founded in 1997. It is intended to be an experiment for exploring sustainable lifestyles. Life in the village is inspired by basic principles of deep ecology - such as the connectedness with nature, the importance of (bio)diversity, and the commitment to a simple lifestyle. The 120 inhabitants build upon these principles in different ways, and smaller groups are formed according to people’s interests. Thus, there are more and less radical approaches practiced. While some inhabitants built their houses with their bare hands and live without electricity, others lead a more comfortable life including television, internet and meat consumption. One of these smaller communities is explicitly concerned with practicing deep ecology. (Ökodorf Sieben Linden 2008)

I visited the village for a weekend. Since extensive interviews were not appreciated, I conducted observations and conversations with some inhabitants. The detailed methodology and fieldwork report are included in Appendix I.

In order to draw plausible conclusions from my fieldwork, I connect my results to Bron Taylor’s analysis of the deep ecology movement in North America. (Taylor 2000) Taylor has been researching the connection between nature and religion extensively. (Taylor 2005) I include additional data from Carina Borgström-Hansson’s PhD dissertation on different sustainability discourses. (Borgström-Hansson 2003) The theoretical link between the alternative community and “change” is provided by Autumn Thoyre’s Master’s thesis. (May 2008)

6.1.1 *Deep ecology: A minor field study*

Although the inhabitants of the eco village were not fond of me asking questions, I attest them a basic openness to communication with the world outside the village. The village offers an extensive seminar programme (see Ökodorf Sieben Linden 2008), and some of the inhabitants have been successfully lobbying for the inclusion of alternative building techniques (straw bale constructions) in the German building standards. As the village is an experiment for alternative lifestyles, social scientists have wanted to research the community. According to Christian, who is responsible for the communication with outside experts, the village community recently accepted such a research project.

There is definitely communication between the village and perspectives from outside. Not all of these processes would qualify as Habermasian communicative action oriented towards mutual understanding. One motivation for the seminar programme, for instance, is the income it provides for the village. The basic *willingness* to communicate required from a Jamesian perspective is however given. Other variants of the deep ecology movement, and namely the radical group EarthFirst!, do not communicate that openly (Luke 1997).

Thus, **the outcome of the pragmatic assessment will differ according to what variant of the deep ecology movement we are confronted with.** As I establish later in this section, not only the communication but also the change that the movement can bring about depends on the *mechanism* through which deep ecology is put into practice.

During my visit in the eco village, I detected some ways in which the community represents a change towards sustainability.

The seminars held at the village support changes in attitudes (for instance through seminars on deep ecology), but also more concrete changes towards a resource-efficient lifestyle (for instance through seminars on alternative building techniques). (Ökodorf Sieben Linden 2008) According to my conversations with the inhabitants, the main change happening *inside* the village relates to people's *social* behaviour: The inhabitants learn how to build a strong community across different age groups, backgrounds, and ideas about sustainability. The communication and decision-making processes in the village are consciously developed. (ibid) This fosters values that can be seen as essential for attaining sustainability (as established in chapter 5.1): Solidarity, tolerance, and shared responsibility.

All houses in the village are built from renewable materials such as timber, straw, and clay. The buildings are designed in an energy-efficient way, and are equipped with solar collectors and photovoltaic cells. The village is independent from outside electricity support. (ibid) Food is either grown in the village garden or bought from local farmers. A group of people in the village has acquired considerable knowledge about the construction of houses from straw bales and clay. Thanks to their activities, this building technique has been included in the German building standards. All these changes relate to the Brundtland call for decreasing the resource consumption (see chapter 5.1 above).

This might be an interesting list of practical effects brought about in the eco village, but how do they relate to deep ecology?

I argue that it is not possible to establish a direct causality between the activities in the village and the philosophy of deep ecology. Energy-efficient houses and the utilisation of renewable materials and energy sources might as well be inspired by ecological modernization. Environmentally sound buildings and energy efficient technologies are in line with the "technological fix" promoted by this perspective (Carter 2007). "Buying local", again, is an element of green consumption. (ibid) Moreover, the process of learning how to live with a range of different people can occur in any community, as Borgström-Hansson's research into a bioregional community shows (2003).

The difficulty to establish causality occurs as deep ecology is concerned with changing people's basic attitudes. Studies attempting to link different environmental attitudes with behaviour have only delivered ambiguous results so far. (Taylor 2000) Taylor's research on people holding values along the lines of deep ecology, however, shows that they **act "more**

consistently and passionately” (ibid: 277) than people with an anthropocentric attitude. This can be observed in the eco-village, for instance in the group that does not use electricity at all and built their houses without the use of “technology”. Deep ecology can make people more committed to their actions. But what decides the *nature* of the actions themselves?

I hypothesize that the actions taken depend on the *structure* they are embedded in. Autumn Thoyre, who studied community effects on environmentally beneficial actions, found that being embedded in a strong community can “bump an individual’s actions up another level” (2008: 40). Also, the attitude of valuing the common interest over one’s individual interests is fostered in a community and leads to pro-environmental actions. (ibid) Thus, it is the structure of the eco-village that helps to translate people’s motivations into concrete actions. As the variety of backgrounds and ideas about sustainability in the village shows, the motivation for these actions does not have to be deep ecology.

It is, however, possible to link the *emergence* of this supportive structure to deep ecology. According to Taylor (2000), living in decentralised, small communities that are closely connected to their immediate natural environment is an essential part of the praxis of deep ecology. This social philosophy (known as *bioregionalism*) allows for experiencing the connectedness with nature and a simple lifestyle – two essential elements of deep ecology. (ibid) Thus, deep ecology can provide the inspiration for establishing communities that in turn foster environmentally beneficial behaviour. In the case of the eco-village, deep ecology was part of the initial motivation. (Ökodorf Sieben Linden 2008)

A community does not only facilitate action, but it also provides a structure that fosters changes in people’s attitudes and values. (Thoyre 2008) Therefore, the ambition of deep ecology to change people’s worldviews is probably most successfully realised in a community.

I conclude that the “cash value” of deep ecology can be described as follows: The philosophy of deep ecology *can* serve as an **inspiration for community structures** that foster pro-environmental action and social and ecological attitudes important for sustainability. Also, deep ecology **encourages a high commitment** to the actions taken. This “high commitment”, however, can turn into radical action irrespective of its larger (probably detrimental) impacts. (Borgström-Hansson 2003) The “uncompromising passion” (Foreman 1991, cited in Brulle 2000: 198) of Earth First! shows this very well. This brings us back to the importance of distinguishing between different variants of deep ecology. Our first Jamesian criterion, the willingness to communicate with different perspectives, is a good basis for deciding what variant we can accept.

6.1.2 *Discussing pragmatism*

With some effort, the pragmatic method helped to establish that deep ecology can contribute to a change towards sustainability. From this process, I derive some issues for debate.

Firstly, the results are not clear-cut but depend on factors that influence the workings of deep ecology in practice (such as the community structure). As I discussed in section 5.1, this difficulty occurs in any attempt to link an abstract idea to some practical outcomes. So how can we say which perspectives are acceptable and which ones are not?

The difficulties in judging perspectives have left us overwhelmed by the abundance of viewpoints in the sustainable development debate. The most common way of dealing with this abundance is to establish that the validity of a perspective is *relative* to context. Thus, we have agreed that perspectives depend on their cultural context (Redclift & Woodgate 1997): While Northern countries might focus on technologies in order to prevent pollution, other countries might be more concerned with the situation of indigenous peoples. Similarly, while deep ecology can be useful at the community level, ecological modernization is important for making industries cleaner (Dryzek 1997). Statements like these help us to make sense of the myriad of viewpoints on sustainability. Still, they hold the danger of promoting *relativism* instead of a pluralist appreciation of different perspectives. If the justification of a perspective is a matter of context, we run the risk of *taking away the possibility to meet (and maybe even agree) on common grounds*¹⁰. (DesJardins 2006) The pragmatic method provides these common grounds by assessing each perspective based on certain criteria. It does not provide clear-cut answers, but in an issue as complex as sustainability this is probably not to be expected.

As the instance of deep ecology shows, applying the pragmatic method turned out to be a complicated and almost bureaucratic procedure. I had to construct my argument based on empirical observations, previous research, and relevant theories. The procedure seemed very close to a “sustainability assessment” (Ness 2007) based on seemingly neutral criteria. Is this approach desirable in the realm of abstract ideas? The danger that this approach certainly bears is to apply criteria that are biased towards certain perspectives.

Habermas’ communicative action shows a different possibility: We can enter into a dialogue with others, get to know their standpoint, and find out whether we can agree on some common points. In the next section, I am going to discuss this approach.

6.2 Habermas: Communicating with deep ecology

Habermas’ communicative action is situated in civil society (as opposed to the “system” represented by bureaucracy and economy) and works through the exchange of validity claims. I already established in chapter 5.2 that deep ecology is rooted in civil society and therefore lives up to the prerequisite for entering into communicative action: The willingness to come to an agreement. In what follows, I am going to focus on the actual exchange of validity claims between deep ecology and sustainability science.

The validity claims refer to the *truth*, *legitimacy*, and *truthfulness* of a statement. The truth claim conveys that the statement refers to a phenomenon that can be verified through experience or facts. (McCarthy 1978) Thus, a *shared knowledge* is established between the speaker and the hearer. The claim to legitimacy refers to existing norms and values that justify an action. Based on this, the hearer *accepts* the statement. The truthfulness of a statement is established through reference to the speaker’s experience so that the hearer can *trust* the speaker. (ibid)

¹⁰ This is because relativism claims that there can be *no* right solution, while pluralism acknowledges the possibility that there can be a *range of* “right” or legitimate solutions. Relativism does away with the merits of communicating with other perspectives – because who is to say what is right or wrong? Pluralism, on the other hand, encourages an exchange since a range of perspectives is seen as legitimate. (DesJardins 2006)

According to Habermas, these claims are raised, implicitly or explicitly, in every speech act. (ibid) Thus, the validity claims of deep ecology and sustainability science can be found in any of their statements. I am going to analyse the claims of deep ecology based on the principles of the deep ecology platform. This platform is an attempt to communicate the philosophy of deep ecology to those who are willing to act on its principles. The eight principles of the deep ecology platform are listed in the section below. The validity claims of sustainability science can be extracted from the 2001 article by Kates et al. This article represents a first outline of the ambition of this field.

I am going to analyse the encounter of the validity claims at the level of academic discourse (where deep ecology was actually developed), and at the level of practical communicative action (based on my case of the eco-village).

6.2.1 *The validity claims of deep ecology and sustainability science*

The validity claims of deep ecology are implicit in the statements of the deep ecology platform. To make my analysis of these claims more transparent, the exact wording of the principles is listed here:

- “1) The well-being and flourishing of human and nonhuman life on Earth have value in themselves (synonyms: inherent worth; intrinsic value; inherent value). These values are independent of the usefulness of the nonhuman world for human purposes.
- 2) Richness and diversity of life forms contribute to the realization of these values and are also values in themselves.
- 3) Humans have no right to reduce this richness and diversity except to satisfy vital needs.
- 4) Present human interference with the nonhuman world is excessive, and the situation is rapidly worsening.
- 5) The flourishing of human life and cultures is compatible with a substantial decrease of the human population. The flourishing of nonhuman life requires such a decrease.
- 6) Policies must therefore be changed. The changes in policies affect basic economic, technological structures. The resulting state of affairs will be deeply different from the present.
- 7) The ideological change is mainly that of appreciating life quality (dwelling in situations of inherent worth) rather than adhering to an increasingly higher standard of living. There will be a profound awareness of the difference between big and great.
- 8) Those who subscribe to the foregoing points have an obligation directly or indirectly to participate in the attempt to implement the necessary changes.” (Naess & Sessions n.d.)

The last three points refer to the *actions* that Naess and Sessions want to convince the reader of: A change in policies, in ideology, and in the reader’s personal commitment to bringing about these changes. The component of personal change is, as mentioned in the introduction to deep ecology (chapter 2.2), the most important aim of deep ecology.

What validity claims does deep ecology raise in order to convince the reader of the suggested changes? A possible interpretation is: It is *true* that the state of nature is getting worse (point four), and taking action is *justified* because all life and its diversity have intrinsic value (points one and two), which means that humans are not supposed to interfere with nature’s development (point three, also implicit in point five). There is no direct claim to

truthfulness that would ensure the consistency of the claims with the authors’ experiences. Following the eighth point, however, Naess and Sessions should be personally committed to their statements (which presumably they have been).

The interpretation above includes the common notion that the intrinsic worth of all life is a basic *value* of deep ecology, from which the *norm* not to interfere with nature derives (e.g. Maskit 2000). I suggest that this interpretation does not correspond entirely to what Naess and Sessions want to express. As I stated in my introduction to deep ecology, they call for a change in people’s ontology, in their perception of *what exists*, towards realising that all life has an inherent value. Thus, the assertion of an intrinsic value is a *fact* that people can only grasp if they extend their perspective on reality. This assertion would be a *truth* claim, then, that can be verified through *experience*¹¹ (Rothenberg 1986). The remaining claim to *legitimacy* of deep ecology is then quite thin – and indeed, deep ecology does not prescribe norms for action. In Arne Naess’ words: “It’s primarily intuitions”(ibid: 2), and actions will be developed based on these.

These different interpretations already show that the claims of deep ecology are not easily understood. *How far removed are these claims from the principles of sustainability science?*

The article by Kates et al. (2001), geared towards gaining support for the emerging field of sustainability science, includes the basic validity claims. Kates et al. promote sustainability science based on the *fact* that science is increasingly taking on the challenge to “meet human needs while preserving the life-support systems of planet Earth” (ibid: paragraph 1). This truth claim is followed by the *justification* for sustainability science: Sustainability science can contribute to understanding and guiding nature-society interactions, which will facilitate the reorientation of society towards sustainability (ibid). The call for research in the field of sustainability science is *truthful* since the authors are scientists concerned with sustainability issues.

The validity claims supporting the statements of deep ecology and sustainability science are quite different. Table 2 below contrasts them.

Table 2: Comparison of the validity claims of deep ecology and sustainability science

	Deep Ecology	Sustainability Science
Truth claim	The state of nature is worsening. All life has intrinsic value.*	Attaining sustainability is a challenge, taken on increasingly also by science.
Legitimacy claim	Humans are not to interfere with nature.	Science can help to understand and guide nature-society interactions.
Truthfulness claim	Statement made by authors committed to deep ecology	Statement made by members of the scientific community

* In a moderate interpretation, this is part of the legitimacy claim.

Deep ecology explicitly states its view that only if we see the connectedness of all life forms we will be able to achieve a change towards sustainability. The eco-centric outlook of

¹¹ I realised this myself when my contact person at the eco-village asked me to join a seminar on deep ecology before writing about the issue. Her explanation was that one could not understand deep ecology without having *experienced* its philosophy.

deep ecology is explained through intuition rather than rational arguments, regardless of the fact that it is “odd” for the Western world (DesJardins 2006).

Sustainability science, on the other hand, *describes* the challenge of a sustainability transition without referring to its relation to norms, values, and worldviews. (Swart et al. 2004)

As incompatible as these perspectives seem – in terms of Max-Neef’s “strong transdisciplinarity” (see also chapter 2.1) they represent complementary “levels of reality” (2005: 11). While deep ecology is concerned with people’s ontology and their experience of the world, sustainability science is oriented towards real-world (policy) processes and reaching a scientifically valid understanding of the world (Kates et al. 2001). Still, how well does the communication between these “complementary” perspectives work?

6.2.2 *Exchanging validity claims*

Since sustainability science is part of academia, one possibility is for deep ecology to enter at the level of *discourse*. In this exchange, all validity claims are taken as hypothetical. In the discourse, the validity of the claims is discussed until in the end an agreement is reached. (McCarthy 1978) If we see sustainability science, as established above, as closer to *facts* than values, the intuitive philosophy of deep ecology will not be regarded as valid. Conversely, deep ecology is critical towards the claims of sustainability science. Proponents of deep ecology have criticised science for failing to acknowledge the philosophical sources of problems, and for being reductionist instead of looking at the connections between parts of a system (DesJardins 2006).

Still, deep ecology *is* discussed in academia. The eco-centric outlook of deep ecology has been lively discussed by environmental philosophers (e.g. DesJardins 2006). Furthermore, human ecology (“an ecology with a wider perspective” – Rothenberg 1986: 12) connects to deep ecology because of its philosophical outlook (*ibid*).

Sustainability science acknowledges the necessity to include a range of academic disciplines in research for sustainability (Kates et al. 2001). In this interdisciplinary (*ibid*) setting, the disciplines more closely connected to deep ecology could help its acceptance in the academic discourse. With the advancement of sustainability science towards *transdisciplinarity* that connects perspectives from natural sciences to ethics (Max-Neef 2005), it will be easier to find a place for deep ecology in sustainability science.

Can *communicative action*, an exchange related to a specific context or concern, function more easily than the academic discourse?

Despite their differences, deep ecology and sustainability science share the concern for the state of our planet. Even Arne Naess (1986) concedes that this is enough of a starting point for deep ecology to cooperate with different perspectives. For instance, a group or person with an eco-centric perspective can cooperate with a planner in the field of nature conservation. Their common concern makes the different *motivations* for entering the project less important. (*ibid*) Similarly, a practitioner of sustainability science could cooperate with deep ecology in a specific situation.

6.2.3 *Discussing communicative action*

The instance of deep ecology shows that the opening of sustainability science for other disciplines and non-academic views and the shift of focus from academic discourse to practical action facilitates the communication with a diversity of perspectives. At present, this exchange is practised mainly at the level of practical action, as for instance the case studies by Cash et al. (2002) show. As Habermas would note, however, this exchange can never be naïve, and particularly in the communication with perspectives that are not rooted in civil society (such as businesses), validity claims *and* motivations for entering the debate have to be discussed (as established in chapter 5.2).

The main debate concerning Habermas' communicative action, as already mentioned in chapter 4.4, is not the basic *possibility* for different perspectives to enter a communicative exchange, but the *outcomes* of this communication. While the process of communicative action serves to establish an understanding between different views, Habermas argues that in the end they will arrive at some common principles for action (McCarthy 1978). This necessity of a consensus has evoked a vivid discussion between Habermas and the latest generation of (post-structuralist) theorists. Post-structuralists fear the loss of diversity in the face of a Habermasian consensus. They argue for a more open-ended process that favours understanding differences over finding common grounds. (for a review of the debate see Schlosberg 1998) This is a difficult question for the sustainability scientist since we are, in the end, oriented towards arriving at action. What process would allow us to appreciate diversity *and* find common grounds for action? The long-standing debate has not provided a satisfactory answer to this question yet, and developing a possible pathway for sustainability science is outside the scope of my thesis. I thus leave the question open for further research.

6.3 Rawls: Is deep ecology reasonable?

From a Rawlsian perspective, the inclusion of deep ecology depends on its theoretical basis and the way these basic ideas are communicated. These criteria are the reverse to James' pragmatism: Instead of focusing on practical outcomes, this approach judges a perspective by its theoretical soundness.

As described in chapter 5.3, to qualify in Rawlsian terms, a perspective has to be *intelligible* in the sense of addressing major social questions and being situated in a theoretical tradition. Furthermore, the perspective has to accept the existence of different viewpoints, and it has to be communicated in a way that others could agree with its claims.

One of the main criticisms towards the philosophy of deep ecology is that it is not coherent enough (and thus not "intelligible" in the Rawlsian sense). As we have already seen in the previous chapter as well as in the introduction to deep ecology, it is a philosophical position rather than an elaborate political theory. Deep ecology is "a position in environmental *philosophy*, [...] it is a *cosmology* or a *worldview* [...]" (Katz et al. 2000: xiv). Based on this ontological position, ethics and politics derive intuitively. (Rothenberg 1986) Since it does not outline explicit answers to social and political questions, deep ecology has been attested an "inability to address political questions" (Brulle 2000: 206). Furthermore, deep ecology is quite eclectic in its theoretical groundings that range from Gandhi to indigenous cultures (DesJardins 2006). Thus, it does not live up to the Rawlsian requirement

for sound theoretical foundations either. All in all, deep ecology cannot be seen as intelligible according to Rawlsian criteria.

Deep ecology is, however, open to diversity (the second Rawlsian criterion), which shows for instance in the range of different groups following its philosophy (DesJardins 2006). Then again, deep ecology does not provide guidance for settling practical conflicts, a weakness even admitted by Arne Naess (Rothenberg 1986: 13). Also, as we have seen in the section on Habermasian communication, the claims of deep ecology are not easily understood and accepted by others.

From a Rawlsian perspective, deep ecology does not fulfil the criteria for a reasonable theory. Does this perspective still offer a way to include deep ecology in sustainability science? For Rawls (as for all liberals), anything that is not reasonable belongs to the private realm. (Ingram 1996) Thus, a researcher in sustainability science could hold views in line with deep ecology without explicitly expressing or applying them. This is, as observed by Arne Naess, a common attitude towards deep ecology. (Naess 1986)

If judged by their reasonableness, a range of marginal perspectives on sustainability (such as indigenous voices) would not qualify for inclusion in sustainability science. What remains, is the possibility to express these views privately. In this case, we have to acknowledge that these views *do* influence a researcher's work (based on the constructivist notion of knowledge production in sustainability science; see chapter 2.1).

6.4 Summing up: Results from testing the perspectives

From the beginning of my work, I expected Jamesian pluralism to allow for an inclusion of a wide range of perspectives. Indeed, the Jamesian analysis of deep ecology provided an argument for acknowledging even this “odd” perspective. The advantage of the Jamesian approach is that, as opposed to Rawls, every viewpoint gets the chance of proving its “cash value” regardless of its theoretical foundations. It proved, however, to be quite complicated to establish a plausible argument for the usefulness for the “odd” perspective of deep ecology. On the other hand, the necessity to establish this argument encourages an involvement with different perspectives beyond rhetoric (such as my visit in the deep ecology village). When applying a Jamesian perspective, I regard it as essential to establish *broad* criteria for determining the “cash value” so as to avoid bias.

The analysis from the Habermasian point of view focused on the actual process of communicating across differences. Thus, the inclusion of deep ecology depends on the possibility to establish communication with sustainability science at its present stage. The Habermasian approach showed that it is possible to include deep ecology in a specific real-world context. At the level of academic discourse, however, only a *transdisciplinary* sustainability science will be able to accommodate deep ecology. Thus, in order to be able to acknowledge a range of different perspectives, sustainability science needs to transcend its own perspective and develop towards providing a *platform* for communication.

For Rawls, deep ecology would not qualify as reasonable enough for inclusion. This standpoint, thus, reduces the diversity of perspectives on sustainability to those who are theoretically sound. Perspectives that do not meet this criterion are a private matter. The reflective practitioner of sustainability science has to acknowledge these private attitudes.

7. CONCLUSIONS & DISCUSSION

“World is suddener than we fancy it.”

7.1 Main findings and implications for sustainability science

The aim of my thesis was to show the importance, possibilities and some problems with the inclusion of a diversity of perspectives in sustainability science.

By going beyond general statements about the instrumental value of appreciating the diversity of perspectives in sustainable development, I arrived at sociological and philosophical accounts that also capture the *inherent* worth of diversity. Based on these accounts, I was able to develop different possibilities to acknowledge the diversity of perspectives. Thus, **philosophical and sociological reasoning provides us, firstly, with the possibility to see the inherent worth of social diversity. Secondly, this reasoning helps to conceptualise social diversity beyond the prevalent general statements and analogies to natural systems.**

The application of a Jamesian, a Habermasian, and a Rawlsian perspective to the “odd” instance of deep ecology revealed that **these perspectives can justify the inclusion of different perspectives in sustainability science to different degrees.** While James allows for including a wide range of ideas, Rawls excludes all views that are not sufficiently reasonable. A Habermasian approach shows that the possibility for inclusion depends on the workings of the communication between different perspectives.

As the Habermasian distinction between lifeworld and system perspectives revealed, the **inclusion of different perspectives can never be naïve.** In particular, the exchange with system perspectives (businesses, policy makers), has to include a critical analysis of the participants’ motivations for entering the communication.

For sustainability science to reach *transdisciplinarity*, the Habermasian perspective is particularly relevant. The main message is: **If sustainability science wants to be a platform for the exchange between and beyond academic disciplines, it has to reformulate its perspective on the project of sustainability.** The current perspective (as the analysis of the validity claims of sustainability science in chapter 6.2 shows) is formulated in objectivist terms and focuses on the role of sustainability science as making a contribution to knowledge production and application. This claim, as the instance of deep ecology shows, limits the range of perspectives that can participate in sustainability science to those that are scientific themselves. In order to be able to accommodate a range of perspectives, sustainability science has to be based on a wider perspective. This perspective should express that sustainability science aims at serving as a platform for the critical and reflective exchange between different actors and viewpoints on sustainability.

Because of its academic roots, sustainability science can provide a platform for such an exchange since academia is (and this is again a Habermasian notion) a realm where the critical exchange between viewpoints has traditionally been practised. This would, then, establish **sustainability science as an alternative to the diplomatic bargaining and broad rhetoric of the sustainable development debate.**

7.2 Reflections and directions for further research

Starting from a pluralist stance, my research called for the integration of different perspectives in sustainability science. I see this as a *constructive* contribution to the debate on diversity. This stance, however, is not critical enough towards the factors that lead to the marginalization of certain perspectives. **A more critical analysis of the relation between different perspectives on sustainability** could deliver valuable complementary information for making diversity work.

Indeed, **how to accommodate diversity** so that concrete actions can follow from the exchange between perspectives is the main question that remained open in my research. This question will have to be explored further – from a theoretical perspective, but also based on the analysis of actual communication processes between proponents of different perspectives on sustainability.

The question that arises in connection to pluralism is: Why do we need a diversity of perspectives at all? Many voices call for a clear definition of what sustainable development means. After all, we are facing real problems that need to be resolved. I hope that my thesis shows that social diversity has an inherent worth, and that acknowledging this diversity is *in itself* an important element of sustainability. After all, our world *is* undeniably and incorrigibly plural:

*“On the tongue on the eyes on the ears in the palms of one's hands -
There is more than glass between the snow and the huge roses.”*

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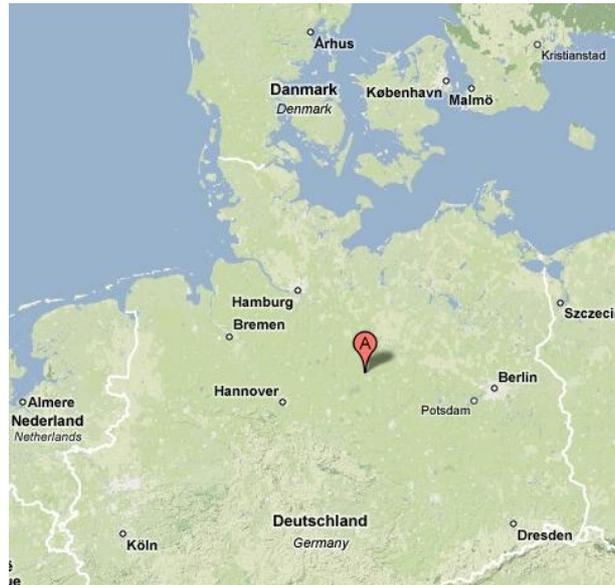
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APPENDIX: FIELD WORK REPORT

Visit in the eco village “Sieben Linden” April 4-5, 2009

The setting:

The eco village “Sieben Linden” (“Seven Lime Trees”) was founded in the German federal state of Saxonia-Anhalt (Sachsen-Anhalt, used to be part of the German Democratic Republic) in 1997. (Ökodorf Sieben Linden 2008)



Location of the eco village Sieben Linden

<http://maps.google.com/maps?hl=en&tab=w1>

The purpose of the village (as officially stated) is to be an experiment for exploring sustainable lifestyles. Currently, about 120 people of all age groups live in the village. The inhabitants do not follow one main approach to sustainable development – they live in small groups, each of which is trying to find their distinct way towards sustainability. One group is explicitly oriented towards spiritual approaches and, thus, also concerned with deep ecology. Basic notions of deep ecology, such as the “interconnectedness of all life”, the importance of (bio)diversity, and the commitment to a simple life are shared by all inhabitants. (Ökodorf Sieben Linden 2008; Foundation for Deep Ecology n.d.)

The inhabitants live and work in the village; one source of income is the seminar programme. The village was nominated one of Germany’s official projects for the UN Decade of Education for Sustainable Development. (Ökodorf Sieben Linden 2008)

The process:

I came across the eco village through the German “Society for Applied Deep Ecology” (Gesellschaft für angewandte Tiefenökologie). The society lists the village as a connected project, and a member of the society, Gabi Bott, lives in the village. (Gesellschaft für angewandte Tiefenökologie 2009) Since I was looking for the practical implications of deep ecology, the village seemed to make a good site for fieldwork. Furthermore, this variant of the deep ecology movement has received not as much attention as the eco-terrorist acts of groups such as EarthFirst!. (see for instance Luke 1997; Carter 2007)

I contacted Gabi Bott with the intention to get the possibility to conduct in-depth interviews with inhabitants of the eco village. It turned out they did not want me to do extensive research

(which might be due to the busy seminar schedule at the village, but I also found that the inhabitants simply prefer to keep to themselves). What I could do was to visit the village for a week-end. This way, the only strategy possible was observation: I stayed in the village for two days, observed what was going on and participated in common activities (such as the common meals and the preparations for the public Sunday café). With this strategy of “hanging around” (as Bryman calls it; 2004: 298), I was observing what was going on and also got to talk to some people.

When I got into discussions, I was trying to find out about people’s perceptions of “change” in the village – anything from personal development to global implications of their lifestyle. I thought this to be consistent with my motivation to find out about the practical implications of deep ecology. Since extensive research was not welcome, I did not follow a formal procedure in these discussions, and I did not record anything. My role as a student writing a thesis was clear to the ones I talked to; so my role was not clear to *everybody* in the village.

The report:

I arrive on Saturday afternoon in the village of Poppau – from there on I have to walk one kilometre on a country road to get to the eco village. It is within sight of the “normal” Poppau, so definitely not in the middle of nowhere.

Shortly after my arrival, I go on a “*twalk*” through the village with my contact person *Gabi Bott*. The village consists of about nine larger buildings and a number of trailers (the type used by construction companies). The houses were all built according to ecological construction standards. The two passive houses are the most “normal” buildings, also because they are made up of small flats rather than shared community rooms. The other houses were constructed using wood, straw and clay. Gabi proudly tells me that the village is the leading centre for this construction technique in Germany – seminars are held, and lobbying from the village helped to achieve the recognition of straw bale construction in the German construction standards. Thus, architects can now officially use this technique.

She also tells me that the village is in constant exchange with other eco villages, and that the office of the “global eco village network” is in Sieben Linden this year (the location of the office is in a different village each year). She also emphasises the role of the village in education through the seminars and exhibitions held there.

Following my question if they get substantial support from outside the village, she explains that some of the inhabitants are trained craftsmen or engineers. Thus, the buildings and the technological installations can be designed in an ecologically sound way by these people. The food is grown in the village garden or bought locally. Some of the houses are even independent from outside electricity supply.

Some people in the village, and Gabi is one of them, give seminars in the field of personal development. (A look at the seminar program shows that they also have a “horse whisperer” there.) Gabi is actually a trained landscape architect. After finishing her studies, she worked in this field, but never felt satisfied with the “top down” prescription of nature protection areas. She was responsible for planning biotopes and got annoyed by the slow bureaucratic process – it could take years until a protection area would be accepted, and often times the biotope worth protecting would not even exist anymore at that time. “Why can’t the farmers just care about this part of nature worth protecting? Why do we have to negotiate all this?” Gabi tells me that this question made her look for alternative approaches – and she found what she was looking for in deep ecology. She spent three years getting trained in the philosophy of deep ecology – two years at the German “Society for applied deep ecology”, and one year in America with Joanna Macy. (Joanna Macy is a scholar of religious studies and systems theory. She interprets deep ecology as “secular Buddhism” and has developed a range of exercises that allow to experience and learn deep ecology – in order to “heal

anthropocentrism”. – Macy, n.d.) Since then, Gabi has worked as a trainer for deep ecology herself.

How do people change in these trainings? Gabi talks about spiritual changes – people realise that they are connected to everything around them. Then, actions like carelessly throwing away waste beside the road just don't exist any more. “This movement of the hand, that you make when you throw away something, it is just not in your head any more.” And yes, these changes can happen only within a few days. Opening yourself and feeling connected to everything and everybody around you is the essential element: Community is key to experiencing deep ecology – and that's why Gabi likes the eco village. The village has its own “spiritual place” where Gabi holds her deep ecology trainings. It is a circle surrounded by a “wall” made of branches, and nomad tents in the middle. The place is called “Globolo”. At the end of our little walk, Gabi shows me my “home” for the week-end, a cupola-like house made of straw and clay. It even has a light, supported by a car battery. Then Gabi leaves me alone, again with the instruction not to disturb people with long interviews.



The “Globolo” in Siebenlinden
(<http://www.siebenlinden.de>)



My “home” for the week-end

So I decide to walk around a bit more in the village, and to take a few pictures:



Building activities – a straw bale house



One of the two “pragmatic” passive houses;
Pragmatic because people wanted to move in fast and therefore used prefabricated elements



A straw bale apartment building with photovoltaic and solarthermal cells on the roof



The forest kindergarten

It is late Saturday afternoon, and I don't see many people outside. Those who show up seem quite busy with their own activities – a man is getting a haircut by his neighbour, a woman is just moving in for the week-end with her two little kids, and a few smokers have retreated to

their “smoker’s corner” and observe *me* with curiosity. I do not quite fit in here – I don’t look as “alternative” as most people here. I should have dreadlocks, short boyish hair or long hippie curls and walk barefoot.

Then I see the bike repair shop. A man is standing outside and painting a bike – like with all bikes, its brand name is being covered with rainbow colours, and it gets a new name. This one is “Gaia” – mother earth. After my “hello”, there is nothing. Silence. What’s happening? “So what does Gaia mean?” Now we’re talking. It turns out that the man is a retired university teacher for sociology and philosophy. They call him “Sancho” here. He won’t tell me why. He seems very interested in my thesis, and he runs back to his trailer to get some books for me. I realise that he might not be the typical inhabitant of Sieben Linden – but maybe there is no such thing as “typical” here. Rudolf Bahro, Johannes Heinrichs – “you don’t know them?” I explain that I know the ones that have been translated to English, such as Habermas. He doesn’t seem to like Habermas and sells me a book by Johannes Heinrichs. So this is how he earns some extra money – by selling books that support his cause. Yes, his cause. What is it? “We need change on a higher level! Political change! But unfortunately, the people here in the eco village exactly run away from this. They just want to be left in peace and don’t want to fight for a bigger change.” (Later on, one of the smokers – yes, I decided to retreat to the smokers’ corner to overhear some conversations – confirms that Sancho (“this dreamer”) has been trying in vain to win people for a world revolution.) They have internet and television in the eco village – very important for Sancho, and he promises to send me an article on Habermas versus Luhmann. I just nod and wonder... (Actually, with the article I received an invitation to a meeting at Sieben Linden – topic: “The second enlightenment”. The meeting is based on the notion that we – in particular the “Geisteswissenschaften” i.e. the humanistics – have not succeeded in “enlightening” the German society. Sancho suggests a solution based on Kant’s “transcendental philosophy”...)



The bike repair shop

Then it is time for the common dinner. Only some of the inhabitants go to the common dinner; many eat in their own homes. So it is mostly guests here. Some of the volunteers

cooked today – we have salad, rice with chickpeas and potatoes. Siebenlinden is not completely vegetarian. Only one of the groups within the community lives on a vegan diet. According to the Siebenlinden website, the village is going to be split into a vegan and a normal group that even eats meat sometimes. (Ökodorf Sieben Linden 2008)

During the dinner, I join a group of people about my age. They all applied for being a volunteer in Siebenlinden, and so they spent a few days here as a “trial period”. They have been working in the garden or on the construction site. The community will pick the ones they liked. Some of the young people used to be volunteers at Siebenlinden and returned just for a short holiday or to help out with the construction work. They seem to like it here. It is, however, not easy to actually be accepted as a permanent inhabitant in Siebenlinden. Potential inhabitants have to participate in a “community training” where they learn what life in an alternative community is like. About 10 new inhabitants per year are accepted.

After dinner, some people stick around to play a board game – “The Settlers of Catan” – and they do not neglect the irony of the situation: Alternative people planning the exploitation of resources on the island of Catan. But that’s the reality. “What reality do you mean?” Oh, right. As I walk “home” to my little straw-bale hut in the darkness, I see people sitting in front of their TV. This is not a community that sticks together all the time.

It is Sunday, and after a cold and therefore very short shower I join the community for breakfast. I start talking to *Michael*, an engineer – “and craftsman” – who is responsible for the technology in Siebenlinden. He is proud of the ecologically sound houses and equipment. But why did he come here? He was looking for a “home”, a community just like his home village, where he did not want to return to. As an engineer, he got a paid job in Siebenlinden. Not all people here are that lucky. “You have to be able to afford living here.” Although the community is situated in the former GDR, most people come from the “West”. They are the wealthier ones. Others come here from cities. For Michael, the seminars and the opening of Siebenlinden to the public is primarily necessary for financial reasons. Some subsidies are granted only on this condition; and the seminar guests pay well. Indeed, there has been some public interest in Siebenlinden recently: Two films have been made (one by a man living in the village, the second one by a professional director), and a German broadcasting company is filming a reality-tv series about a girl volunteering in Siebenlinden for a year.

No lunch on Sundays. The Sunday café offers cakes and coffee for visitors, and the inhabitants of Siebenlinden get their “lunch” there. So until the visitors arrive, I “hang around” here and there, help with the washing up and try to start some conversations, an attempt that fails.

So I try to get an “official” appointment with *Christoph*, the “director” here in Siebenlinden. What he did before? I don’t know. I found that people here don’t like to talk about their past. They also want to have a peaceful life without annoying questions from people like me. But still, Christoph agrees to talk to me – if I bring him a piece of cake and some coffee. In return, he lends me his ballpen, which doesn’t work anyway. So why did he come here? He was looking for a community, a place where he could live with like-minded people. He was politically active before he came to Siebenlinden. And does he feel like living in Siebenlinden has brought about some change? In his position as “director”, he can actually plan change in Siebenlinden, take decisions about what to buy, how to build, whom to accept in the community. Personally, he appreciates the strong community here. For him, this is the most important contribution of Siebenlinden to sustainable development: It serves as an experiment and learning process for living together in peace. The community is very conscious about its “inner life”. The Siebenlinden inhabitants meet weekly in a panel to discuss problems within the community. In the smaller groups, regular meetings are held about more personal issues. Different communication techniques are tried out in the community, and once a year they invite an external trainer to organise “intensive” exchange between the inhabitants.

Christoph is also responsible for the communication with experts and scientists interested in the eco village. The main area of exchange at the moment is the straw bale construction technique developed in the village. External sociologists (there is also a bunch of them actually living in the village...) have been wanting to research the community of Siebenlinden, but denied access so far. With the further development of Siebenlinden (and the split of the community in a more and a less radical part), they will be more opened to this research.

So what is the “success” of the eco village? For Christoph, the success consists mainly in the role of Siebenlinden as an experiment that inspires people “outside”. Yes, one starts to talk about the “outside” here. This is also what Christoph tells me in the end: Whatever happens out there, he is optimistic since he can do concrete things in Siebenlinden. He has stopped worrying about bigger problems.

At the end of my stay, Gabi turns up again. To collect the payment for the room and the food. And to sell me a book. I pay for both. The food store and the jeweller (who crafts jewellery from non-local stones and gold) are also opened for the numerous Sunday visitors. Even in an alternative place like Siebenlinden it is not only the bright Sunday sun that puts a smile on people’s faces.

Reflections:

Of course, I was an “outsider” in the eco village. The division between the inhabitants and visitors is quite clear there. People were not trying to “win” me for their cause, which had the downside that they were not very eager to talk about their motives and their hopes for “change” either. I did not feel comfortable in my detached role, but I did not see an alternative to it.

I have the impression that the function of Siebenlinden is threefold:

Most importantly, it serves as an “oasis” (that’s what people actually call it), a place of retreat for people who don’t like the harsh, unfair, unsustainable world “out there”. The inhabitants of Siebenlinden do not conform to the rules “out there” – be it because they neglect the pressure to consume and work in a “proper” job, or because of their sexual orientation. The village also accommodates a number of elderly people and one mentally disabled man. Secondly, the inhabitants are interested in creating a different world and see Siebenlinden as an “experiment” for alternative lifestyles.

Therefore, the third function is to exchange information with the world “out there” – mostly in the way that Siebenlinden serves as an inspiration for others.

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