

# Environment and Global Modernity



Edited by

**Gert Spaargaren, Arthur P. J. Mol  
and Frederick H. Buttel**



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## Preface

This volume originated out of a conference on 'Social Theory and the Environment' organized under the auspices of the International Sociological Association (ISA) by the Research Group on 'Environment and Society'. It was a so-called 'regional conference' organized in between two ISA-world congresses which have been aimed at presenting the whole spectrum of sociological activity throughout the world. This regional conference had a more specific focus, concentrating itself on theoretical or conceptual issues within the field of environmental social sciences.

There are several reasons for having both a conference and a book which give a certain primacy or priority to theoretical issues within the field of environmental social sciences. We will shortly discuss three reasons for doing so.

First, the relative lack of a common conceptual ground can be said to be one of the key factors negatively influencing the future development of the environmental social sciences. This lack of common ground is rooted of course in the disciplinary boundaries that exist also within the environmental social sciences. Leaving the economists aside, we still are left with a great variety of disciplines which all have modest or more substantive records in the environmental field: philosophers, political and administrative scientists, sociologists, (social) psychologists and historians. Although these disciplines may in principle or in theory share a methodological foundation, in practice they sometimes seem more eager to stress the differences that come along with the specific sets of societal issues they traditionally address. The fragmentation that results from these processes of distinction and competition among the different environmental social sciences seems to weaken the position of the social sciences vis-à-vis the natural sciences. The natural sciences are known for their still dominant position in the environmental field, both with respect to the research funds and facilities they have access to as well as regarding the definition of the environmental problem they put forward. While the call for a really interdisciplinary approach seems to be nowhere stronger than within the environmental field, we think the social sciences are in some respects not yet ready for the kind of collaboration with the natural sciences that policy makers are asking for. In our view, reflecting on the theoretical and conceptual issues that the environmental social sciences have in common could strengthen their position vis-à-vis the natural sciences and highlight the specific contributions that can and cannot be expected from social scientists when it comes to doing interdisciplinary research in the future.

Second, theoretical issues are not so well developed within the environmental social sciences because a significant share of the practitioners are simply not interested in the kind of research that is regarded as 'abstract theoretical' or 'highly

formal' in character. In their endeavor to please policy makers with results that are 'relevant' in terms of being applicable in the short run as well as fitting smoothly within the existing policy frames, they keep conceptual exercises on a level that makes them easy to understand for non-scientists as well. Although there seems to exist some differences in this respect between the environmental social science tradition in the USA on the one hand and some European countries on the other, the overall conclusion – that the mainstream environmental social research can be said to be predominantly empirical in character – seems to be valid to a considerable degree. Though we consider empirical research as an indispensable ingredient of environmental social sciences, we think that one cannot and should not stick to the most recent tables, figures, and data even when the main objective is to do policy-relevant research. In view of the incredibly high pace of change that characterizes modern policies, one runs the risk of figures being outdated the very moment they are published. Moreover, the definition of policy-relevant research might, against this background of accelerating change, soon become adjusted in the direction of medium- and long-term research which can stand on its own and which is theoretically well informed.

Third and finally, theoretical research in the environmental social sciences has been frustrated or at least been handicapped by the fact that the founding fathers, the classical thinkers who delineated the field of social sciences so far, paid little attention to environmental problems at all. This is as much true for Marx, Kant and Hegel as it is for Weber, Hobbes, Durkheim, Simmel and Mead. When leading contemporaries argue that the legacy of the classics needs to be rethought and taken away from its 19th century footing, they should have the immediate consent of environmental social scientists too. When this challenge of reinventing and redefining the social science classical tradition is taken up in a serious way, environmental issues inevitably belong to the core themes to be discussed. We hope that this volume will contribute to strengthening the disciplinary identity of environmental sociology as well as to the greening of sociology.

This book would not exist if Neil Guppy, as editor of the Sage Studies in International Sociology, had not asked us to start this project. The book would not be as attractive as it is without the efforts made by Corry Rothuizen. We also would like to thank the other members of the organizing board, Riley Dunlap and Peter Dickens, and especially Guus Gijswijt from SISWO in the Netherlands because of his decisive role in organizing the Woudschoten conference from which this book resulted.

Wageningen/Madison, April 1999.

Gert Spaargaren  
Arthur P.J. Mol  
Frederick H. Buttel

## Abbreviations

BSE	Bovine Spongiform Encephalopathy (mad cow disease)
CEE	Central and Eastern Europe
CFCs	Chloro Fluoro Carbons
ECE	Economic Commission for Europe
EMAS	Environmental Management and Audit Scheme
EU	European Union
FOEI	Friends Of the Earth International
G7	Group of Seven (richer countries of the world)
GATT	General Agreement on Tariffs and Trade
GEC	Global Environmental Change
GEF	Global Environmental Facility
GNP/GDP	Gross National/ Domestic Product
GPP	Greatest Permissible Pollution
HCRs	High Consequence Risks
HEP	Human Exemptionalist Paradigm
HIID	Harvard Institute of International Development
IMF	International Monetary Fund
IPCC	Intergovernmental Panel on Climate Change
ISO	International Standard Organization
LEIF	Lithuanian Environmental Investment Fund
MEMO	MEns en Milieu-vriendelijk Ondernemen (Man and environmental friendly enterprises)
MNE	Multi National Enterprises
NAFTA	North American Free Trade Agreement
NEP	New Ecological Paradigm
NEPP	(Dutch) National Environmental Policy Plan
NGO	Non-Governmental Organization
NICs	New Industrializing Countries
NIDL	New International Division of Labor
NIMBY	Not In My BackYard
OECD	Organization for Economic Cooperation and Development
PESTO	Public Participation and Environmental Science and Technology Policy Options
PHARE	Pologne/Hongrie: Assistance á la Restruction des Economies (EU aid programme for former CEE countries)
PPP	Pollution Prevention Pays/Polluter Pays Principle
PRA	Probabilistic Risk Assessment
RAP	Rational Actor Paradigm

## Ecological Modernization and Post-Ecologist Politics

*Ingolfur Blühdorn*

In the context of the widely acknowledged post-Brundtland 'age of the environment', ecological modernization and ecological modernization theory have experienced a comet-like career, and are celebrated as the key to the ecological transformation of late industrial societies. This chapter raises fundamental doubts vis-à-vis the theory of ecological modernization and analyses the corresponding social practices on the basis of the competing *theory of post-ecologist politics* (Blühdorn, 1997). This leads to the thesis that, contrary to its reputation, the practice of ecological modernization must not be seen as a strategy for the preservation or restoration of a certain state of the physical environment. Instead, I will suggest that ecological modernization is a form of societal behavior which responds to the perceived necessity to preserve the myths of modernity. With ecological modernization contemporary societies have found themselves a highly suitable strategy for organizing the peaceful transition to a politics of nature that is largely determined by the principles of power and financial solvency.

Ecological modernization is an unspecific label that is used in several different ways. In the recent literature there are a number of attempts to clarify the meaning of this concept, to spell out different perspectives of society's ecologization, and to assess the adequacy of the ecological modernization approach (e.g. Huber, 1993; Jänicke, 1993; Hajer, 1995, 1996; Mol, 1995, 1996; Christoff, 1996; Spaargaren, 1997). Nevertheless, there is still a lot of uncertainty about what exactly ecological modernization achieves, whether it really takes late modern societies any closer to the desired state of sustainability, and what kind of societal transformation it entails. In this chapter I will attempt to find an answer to some of these questions by breaking the connection between the reformist practice of ecological modernization and the theory of social change that has grown around it. I will suggest that, due to its postmodernist leaning, the *theory of post-ecologist politics* provides a much more suitable theoretical framework for the analysis of environment-induced processes of societal transformation than *ecological modernization theory* can ever hope to offer. After a very brief orientation about the concept of ecological modernization, I will summarize some common – but arguably misguided – points of criticism regarding the suitability of the ecological modernization approach. As judgements about the appropriateness of a particular strategy

involves the assessment of the relationship between its means and its ends, section three will undertake an analysis of what actually constitutes the environmental problem. On the basis of this analysis the last two sections are devoted to the post-ecologist reassessment of both the theory as well as the practice of ecological modernization.

### Ecological modernization and ecological modernization theory

In the widest sense, the label of ecological modernization covers all reformist environmental efforts since the 1970s which have otherwise also been described as 'environmentalist' (Dobson, 1995). More specifically, the concept is used to refer to an anti-ideological, policy-oriented approach to the environmental problem that superseded both the conservative anti-modernist as well as the leftist-revolutionary approaches typical of the 1970s and early 1980s (Von Prittwitz, 1993a; Hajer, 1995; Mol, 1995; Spaargaren, 1997). The emergence of ecological modernization as a socio-political program of reform indicated the softening of the belief in the incompatibility of high-tech capitalism on the one side and ecological sustainability on the other. As Hajer points out, it signaled the end of 'the sharp antagonistic debates between the state and the environmental movement' (Hajer, 1995: 28f). Given that the structure and achievements of the welfare state seemed to depend on the continuation of the established developmental model, turning away from the path of techno-economic progress no longer appeared as a realistic option. The change of strategy from the 'flight from technology' to 'a technological attack' (Jänicke, 1993: 18) obviously meant 'the acceleration of technological progress', but it was assumed that 'a change in the direction of development' (ibid.) could be achieved at the same time. Particularly since the beginning of the 1990s, so the proponents of this reformist agenda argue, the environment-induced societal transformation can 'no longer be interpreted as mere window-dressing' (Mol, 1995: 2), but the ongoing processes of institutional learning and reorganization amount to a fundamental ecological restructuring of late modern society. In this respect, contemporary ecological modernization is regarded as categorically different from earlier reformist approaches.

Ecological modernization as a theory of social change emerged in the early 1980s. Martin Jänicke and Joseph Huber are widely considered as the founding fathers of this project to devise a theoretical model for late industrial society's attempt to respond to the undesirable side-effects of its own modernization process (Von Prittwitz, 1993b; Mol, 1995; Spaargaren, 1997). In a number of publications Huber has tried to demonstrate the compatibility of economy and ecology, and argued for the necessity to 'ecologize the economy' while 'economising ecology' (Huber, 1982, 1985, 1989, 1991, 1993). Jänicke mainly concentrated on the changing role of democratic institutions, particularly the role of the state (Jänicke, 1978, 1984, 1986, 1988, 1990, 1993). Since the middle of the 1980s he has been arguing for an 'innovative dual structure of the state as a majority legitimated bureaucratic mechanism of intervention and an initiator of processes of negotiation' (Jänicke, 1993: 15). In Jänicke's view, the ecological crisis necessitates and effectively promotes the transition towards 'a more decentralised and consensus oriented kind of politics which focuses the central state on strategic tasks and

increasingly devolves the regulation of details to local actors' (ibid.: 24f). A turning point for the development of ecological modernization theory was Beck's concept of reflexive modernization and his discussion of 'the conflict of two modernities' (Beck, 1992, 1995a, 1995b, 1997). For contemporary proponents of ecological modernization theory this element of reflexivity is a major parameter in the social transformation processes they are theorizing (Von Prittwitz, 1993b; Hajer, 1995, 1996; Mol, 1995; Spaargaren, 1997).

### An ecologist critique of ecological modernization

As we will argue below, the theory of ecological modernization is probably no longer the cutting edge of green political thought. But whatever we might think about this theory, the practice of ecological modernization is undoubtedly the now dominant response of contemporary European societies to the so-called environmental challenge. As there is no alternative strategy at the horizon, we can safely assume that, in the years to come, ecological modernization will remain the principal approach governments of industrialized countries take to manage their ecological problem. Of course, this does not necessarily mean that ecological modernization is the best possible strategy for achieving our ecological aims. The more radical – but marginal – parts of the eco-movement clearly voice their dissatisfaction with this mode of state policy-making. Also, the fact that most industrialized societies have already been subject to programs of ecological modernization for about one decade does not mean that we have a satisfactory understanding of the kind of societal transformation that is ongoing. On the basis of Maarten Hajer's excellent 1995 book *The Politics of Environmental Discourse: Ecological Modernization and the Policy Process*, whose observations will be supported from the writings of Arthur Mol, Gert Spaargaren and other ecological modernization theorists, we may summarize five central points of criticism regarding the ecological modernization approach.

As Hajer points out, ecological modernization accepts 'the existence of a comprehensive environmental problem' (Hajer, 1995: 28), but frames this problem exclusively in monetary terms and the terms of the natural sciences. On the one hand, this facilitates its incorporation into social, political and economic decision making processes, on the other hand this conceptualization of environmental problems 'explicitly avoids addressing basic social contradictions' (ibid.: 32). To the extent that 'ecological modernization is first and foremost an economy and technology-oriented concept' (Jänicke, 1993: 18), it pre-empts any fundamental ideological conflict and neglects the set of emancipatory concerns which featured prominently in the environmental debate of the 1970s and early 1980s.

Secondly, ecological modernization regards the environmental problem as a 'structural design fault of modernity' (Mol, 1996: 305), or an 'omission in the workings of the institutions of modern society' (Hajer, 1995: 3). Ultimately, the emergence of environmental problems is considered as a management problem which can be solved by means of managerial fine tuning. This fundamentally managerial approach of ecological modernization, Hajer argues, demands 'an almost unprecedented degree of trust in experts and in our political elites' (Hajer, 1995: 11), and it reflects a 'renewed belief in the possibility of (the) mastery and

control' of nature (ibid.: 53). Such an approach, however, directly contradicts the ecologist distrust in the expert culture and the demand for democratic involvement at the grass-roots level. Furthermore, the idea of managing, mastering and controlling nature is fundamentally incompatible with the ecologist vision of civilization's genuine reconciliation with nature. Certainly, the proponents of ecological modernization are suggesting that their strategy will 'restore the balance between nature and modern society', and achieve 'a kind of re-embedding' of society into nature (Mol, 1996: 306), but their ideal of an engineered balance evidently differs from the ecologist idea of a reconciliation with nature.

Thirdly, ecological modernization is based on 'the fundamental assumption that economic growth and the resolution of ecological problems can, in principle, be reconciled' (Hajer, 1995: 26). As Arthur Mol confirms, 'the ecological modernization approach diverges from neo-Marxist social theories in that it has little interest in changing the existing relations of production or altering the capitalist mode of production' (Mol, 1995: 41). And Gert Spaargaren seconds, 'there is no principle or theoretical argument making a modern organization of production and consumption and its technology antithetical to sustainability' (Spaargaren, 1997: 16). Whilst the earlier environmental movement was convinced that the principle of growth is unsustainable and has to be replaced by the principle of self-restriction, the proponents of ecological modernization expect that internalizing care for the environment will even initiate new rounds of technical innovation and qualified economic growth. Hajer therefore fears that the strategy of ecological modernization is no more than 'eco-software' which 'will not save the planet if capitalist expansionism remains the name of the game' (Hajer, 1996: 255). Although himself a proponent of this strategy, even Jänicke has suggested that, in the long term, ecological modernization is likely to be unsuccessful as long as its achievements are 'neutralized by high industrial growth' (Jänicke, 1993: 19). In the end, this strategy may enable modern societies to 'push the crisis back into latency' (ibid.: 25), but Jänicke reminds us that unless we address 'eventually also the question of growth' (ibid.: 19), the crisis is unlikely to be 'solved in its causes' (ibid.: 25).

This leads to the more general criticism that ecological modernization theorists believe to be able to solve the ecological crisis within the framework of the existing political, economic and social order. Certainly, there is the demand for 'a reconstruction or rebuilding of some of the central institutions of modern industrial society' (Spaargaren, 1997: 1; see also e.g. Huber, 1993; Jänicke, 1993; Müller-Brandeck-Boquet, 1993; Robert, 1993; Von Prittwitz, 1993b; Zilleßen, 1993; Mol, 1995). Nevertheless, ecological modernization theorists assume that in principle the 'existing political, economic, and social institutions can internalize the care for the environment' (Hajer, 1995: 25), and that 'the environmental issue can be remedied without having to completely redirect the course of social developments' (ibid.: 66). Because of this principle confidence in the existing structures, Hajer describes ecological modernization as 'basically a modernist and technocratic approach to the environment that suggests that there is a techno-institutional fix for the present problems' (ibid.: 32). It was, however, the lack of confidence in techno-institutional fixes, and the argument that the same institutions whose structural inadequacies gave rise to the ecological problem cannot be expected to

function successfully as the main instruments of society's ecologization, which made committed ecologists in the 1970s reject merely reformist approaches.

The last and for Hajer probably the most crucial concern vis-à-vis the ecological modernization approach is the emergence of what he calls 'the new environmental conflict' (1995: 8ff). The proponents of ecological modernization are convinced that over the past two decades 'the constant influx of new information about the ecological effects of social practices and institutional arrangements' (Mol, 1995: 394) has established a sufficiently broad foundation for the emergence of an independent ecological rationality that can guide the 'continual redirection of the core institutions' (ibid.). This newly emerging rationality is expected to gradually catch up 'with the long standing dominance of the economic rationality' without implying 'the need for an abolition or abandoning of the economic rationality' (Spaargaren, 1997: 24). Arthur Mol speaks of ecology's 'emancipation from the economic sphere' and the emergence of 'two (increasingly equal) interests and two rationalities' (Mol, 1996: 307). But given the postmodern pluralization and diversification of validity claims which the societal discourse on the environment has to integrate, one may wonder whether such an independent ecological rationality is really available, and whether repairing the structural design fault of modernity might not be substantially more difficult than ecological modernization theorists would want to believe. Hajer argues that although the ecological issue has undoubtedly moved from the periphery into the center of the political debate, and although nobody would seriously deny the existence of an ecological problem, the contemporary eco-debate is still characterized by a 'complex and continuous struggle over the definition and the meaning of the environmental problem itself' (Hajer, 1995: 15). Given the multiple views about what is ecologically necessary and desirable, and their incompatibility with the competing demands for, e.g., economic development and social justice, sufficiently strong foundations for an effective policy of ecological modernization are still not really available.

In particular the first four of these points of criticism reiterate arguments we know from the so-called *Fundi/Realo* controversy (e.g. Wiesenthal, 1993). The common denominator of these basically *fundamentalist* arguments against the *realist* approach of ecological modernization is the deep-seated doubt about the *appropriateness* of this strategy for the ecological problem. If, however, ecologists use the criterion of *appropriateness* to disqualify this reformist approach, they can be expected to support their negative judgement by a proper analysis of the problem, which ecological modernization allegedly fails to address and solve. Yet, when it comes to spelling out what exactly the ecological problem consists of, ecologists can so far only point towards a very poor record of achievement. Against this background there seems to be good cause for remaining sceptical about the ecologist assessment of ecological modernization. Certainly, the point of such scepticism cannot simply be to defend ecological modernization as an *appropriate* strategy in the ecologist sense. It rather seeks to ensure that before we come to any conclusive judgement about the appropriateness of this approach, we first of all have to get a clear understanding of what exactly the ecological problem consists of. It is, after all, not only conceivable that the proponents of ecological modernization have chosen the wrong strategy for resolving the ecological problem, but it could also be possible that the ecologist critics have a *wrong* understanding of the problem ecological modernization is meant to confront. It goes

without saying that with regard to this latter point we should neither rely on the view of ecological modernization theorists, nor on that of their ecologist opponents. What is required is an 'independent' (third party) analysis of the ecological problem.

### A post-ecologist analysis of the environmental problem<sup>1</sup>

In the widest sense, environmental problems are phenomena of environmental change. Environmental change, however, is not *eo ipso* problematic. On the contrary, it is an evolutionary normality which raises concern only if it is perceived as environmental degradation. The distinctive criteria of environmental degradation, however, are strikingly underdeveloped. The question: 'When does human-generated environmental change become environmental degradation?' (Goldblatt, 1996: 28) is hardly ever asked in a way that reaches beyond the level of economic reasoning as today's *ultima ratio*.<sup>2</sup> A satisfactory answer has not yet been provided.<sup>3</sup>

In order to distinguish environmental change from environmental degradation we can try to establish empirical criteria in accordance with which certain civilizational effects or kinds of behavior can be classified as damaging the environment. Ecosystem changes can be analyzed in terms of energy- and substance flows, and so *objective*, scientific definitions might be possible. This is the 'realist' route preferred by the proponents of ecological modernization (e.g. Mol, 1995, 1996; Spaargaren, 1996, 1997), who view nature 'primarily as the material sustenance base to human societies' (Spaargaren, 1996: 8; see also Mol, 1996: 315), and restrict themselves to the 'objective, natural science dimension to environmental problems' (ibid.: 6; see also Spaargaren, 1997: 7f). The obvious drawbacks of this approach are firstly, that it excludes all aspects of nature as a non-material entity, i.e. the 'emotional and sensual experiences, the integrity or intrinsic value of nature, ecological quality, the beauty of the landscape and so on' (Mol, 1996: 315). It should go without saying that such aspects are significant constituents of environmental problems, which cannot simply be bracketed out. Secondly, the sciences may be expected to provide a more or less accurate description of the changes occurring in the physical environment, but they cannot themselves provide normative criteria for the evaluation of the change they measure. In other words, the sciences cannot decide which conditions in or constituents of the natural environment we find worth protecting and why we make a particular choice. Wherever the sciences try to define threshold levels, these remain relative to values which have their origin outside the realm of science.

Alternatively, we can try the *subjective* route of exploring what exactly makes us *concerned* about environmental change. By making the problem-status of environmental change dependent on the emergence of concern, we are accepting the constructionist assumption that environmental problems have a discursive rather than a physical reality.<sup>4</sup> The emphasis is shifted to the question of why we want to protect nature, or certain parts of it, at all. As the spring that drives environmental politics, environmental concern centers around issues like the extinction of species, the finiteness of natural resources, the impairment of human health, the loss of spaces for recreation and inspiration, the destruction of tradition, the

responsibility for future generations, etc. The issues are manifold, but in order to facilitate our investigations about the essence of the ecological problem, we may classify environmental concerns into three main categories:

- Concerns about the beauty of nature, its recreational value, the inspiration we gain from it, etc.
- Concerns about personal security, material provision, health issues, and the security of what is generally referred to as the natural foundations of life.
- Concerns about the loss of traditional (moral/religious) values and about human interference with all standards of naturalness.<sup>5</sup>

In the contemporary environmental debate the first category of concerns, i.e. aesthetic issues, play a subordinate role. Firstly, modern environmentalism hopes to increase its credibility by emphasizing its scientific basis and reducing its reliance on evidently subjective criteria. Secondly, no clearly definable catastrophic potential is attached to this dimension of the environmental discourse. Most certainly aesthetic concerns have to be taken into consideration, the really crucial ecological issues, however, are expected to lie elsewhere.

Regarding the second category, the situation seems to be somewhat different. In this context environmentalists discuss the classical triad of problems comprising the finiteness of resources, the growth of the world's population, and the civilizational emissions into the natural environment. Since the publication of Goldsmith's *Blueprint we know that the processes of civilizational development 'are undermining the very foundations of survival'* (1972: 15; my emphasis). However, this civilizational process has, at the same time, always been a process of emancipation from nature, which implied that on the one hand, the natural foundations of life were increasingly replaced by artificial surrogates, while on the other hand, the notion of the good life was to an ever larger extent based on 'foundations of life' which had never been natural in the first place. Processes of familiarization and habituation further blurred the distinction between the so-called natural foundations and their civilizational supplements. As a matter of fact, the experience of naturalness is largely the result of processes of naturalization. It is an established truth that there is no such thing as a state of original naturalness to which civilization could or would even want to revert. Hence, what used to be called the natural foundations of life is more appropriately referred to as *opportunities of life*, which include in a more general sense the conditions and requirements for mere survival as well as a fulfilled life. Undoubtedly, access to and control over these opportunities of life is unevenly distributed. Yet, whilst individuals might find their opportunities of life restricted beyond the bare minimum, there is no indication of the survival of mankind being threatened, as the rhetoric of the natural foundations of life would seem to imply. So the concerns for the so-called natural foundations of life boil down to questions of the acceptable social distribution of opportunities of life. And as long as communities and individuals can develop technological, social and psychological mechanisms which make the results of environmental change, as well as its implications for the social distribution of opportunities of life, *appear natural*, environmental change can undoubtedly continue *ad infinitum* without ever being experienced as problematic.

If neither the aesthetic qualities of nature nor the so-called natural foundations of life appear to be the irreducible essence of our interest in nature and the desire to protect it, we are finally left with the third category of concerns. This category

openly addresses what the two others can easily be reduced to: concerns for nature as a normative standard. With regard to aesthetic issues, there could never be any doubt that these are normative issues. In the case of the so-called natural (material) foundations of life, this seemed less evident, yet we could establish that any environmental condition or change only qualifies as an environmental problem, if it does not *appear natural* or acceptable, i.e. if it infringes upon established norms of perception. Ethical concerns, finally, are once again clearly normative concerns.

So our analysis so far has firstly revealed that environmental problems are subjective concerns rather than objective physical realities. Secondly, they are concerns for normative stability. And thirdly, the crucial norm that seems to be worth defending is the norm of *naturalness*. Nature is worthy of protection as an index of norms. We have thus come much closer to a full understanding of the environmental problem, but there remain two questions which we still need to clarify. Firstly, why is it nature that assumes this crucially important role as an index of norms? And secondly, why do we need such an index of norms at all?

Human rationality and the societies which have developed on its basis are evidently full of contradictions and imperfections. There is a wide abyss between social reality and the ideals of reason. On both the individual level as well as the level of society at large, human rationality is fragmentary; on its own it does not make sense. In order to infuse human rationality with meaning, it needs to be tied into – and differentiate itself against – some larger context. Just as a single letter only becomes meaningful when seen within the framework of the complete alphabet, human rationality depends on the framework of absolute reason, i.e. a context that (however invisibly) connects all rational discourses. After the decline of traditional metaphysics, the only context that can fulfil this function, i.e. that can guarantee the meaningfulness of human rationality and life, is nature.<sup>6</sup> Nature is the all-inclusive systematic coherence out of which civilization sought to emancipate itself, but in which it needs to remain embedded. The systematic coherence of nature is the guarantee of the theoretical possibility of the as yet unrealized rational and systematic coherence of society. Nature and naturalness assume the role as absolute and all-embracing norms providing the metaphysical anchorage for all standards of beauty, morality and meaning. At the heart of all concern for nature is therefore the concern for this all-embracing context. Without nature, human rationality invariably becomes contradictory and inconsistent, i.e. it ceases to make sense.<sup>7</sup>

In as much as the systematic coherence of reason, which is guaranteed by the coherence of nature, is primarily essential for the project of modernity and the modern rational subject, concern for nature is ultimately concern for the project of modernity. In a fundamentally modernist fashion, ecologists have sought to hold up nature – the principle of unity – against the postmodernist dissolution of absolute values.<sup>8</sup> To the extent, however, that individuals and communities have learnt to accommodate themselves in conditions of postmodern plurality and fragmentation, the situation has changed, and the ecologist formulation of the environmental problem has become dubious. On-going processes of modernization have fragmented the grand rational coherence. The modernist principle of unity and all-inclusiveness is irretrievably lost. Ecologists have so far believed that their concern – the environmental problem – would remain exempt from this process

of pluralization and fragmentation. Yet even the regular re-conceptualization of the ecological problem, from first-generation local problems in the 1970s, via second-generation international problems in the 1980s, to third-generation global problems in the 1990s, did not manage to preserve the ecologist belief in the idea of all-inclusiveness. If, however, the grand coherence which nature symbolized suddenly proves less indispensable than had previously been assumed, the traumatic experience of the loss of nature gradually fades, and the necessity to protect it disappears. In other words, to the extent that the postmodern condition supersedes that of modernity, the essentially modernist concern of ecologists loses its significance. To the extent that we manage to get used to (naturalize) the non-availability of universally valid normative standards, the ecological problem (in the ecologist formulation) simply dissolves.

When we are talking about the dissolution of the environmental problem, two essential clarifications may help to avoid misunderstandings. Firstly, this dissolution does in no way imply that environmental change would come to a halt, that the extinction of species would stop, that the hole in the ozone layer would disappear, or that trends of global warming would reverse. These are physical phenomena which will, of course, continue as before. Yet as we argued above, such phenomena of physical change are not in themselves problematic, but only to the extent that we perceive them as problematic, i.e. their problem status depends on social norms of perception rather than on scientifically measurable empirical data. And provided these norms of perception become sufficiently flexible, the same phenomena which have so far been experienced as catastrophic may assume the status of perfectly acceptable (natural) normality. So, what the dissolution of the (ecologist) environmental problem means is not the disappearance of any physical conditions, but the dissolution of absolute criteria on the basis of which these conditions could be described as unambiguously negative, i.e. problematic for every member of society or even every human being.<sup>9</sup> First and foremost this means that ecologists lose their claim to cognitive or moral superiority, i.e. the basis for their social critique. Ecologists can no longer present themselves as defending the common good against the attack of particular interests. And for the lack of valid ecological criteria they are not just politically but also morally forceless against the societal practice of distributing the opportunities of life according to the principles of power and financial solvency. This radical devaluation of the ecological critique, which indirectly strengthens the politics of social marginalization and exclusion, we may call the transition from an ecologist to a *post-ecologist politics of nature* (Blühdorn, 1997).

Secondly, when talking about the dissolution of the environmental problem, we have to bear in mind that social patterns of perception and norms of evaluation do not change over night. Even though there is plenty of evidence that in contemporary industrialized societies the principle of all-inclusiveness has long been abandoned and superseded by mechanisms of exclusion and marginalization,<sup>10</sup> there is also evidence that the social distribution of opportunities of life along the criteria of power and financial solvency is still widely experienced as barbaric. Certainly, there is broad agreement that the re-installation of the principle of all-inclusiveness, i.e. a re-entry into modernity, is neither philosophically possible nor economically feasible. Nevertheless, the current debate about economic globalization and the resulting 'race to the bottom' in terms of social and environmental

standards (e.g. McMichael, 1996) clearly demonstrates that we have not fully embraced the ideas of plurality and exclusion, and therefore continue to have an ecological problem in the ecologist sense. To the extent that contemporary industrialized societies have to be described as late modern rather than postmodern societies, the ecologist discourse continues while the post-ecologist discourse gradually pushes itself to the fore.

Against this background, the politically most crucial and sociologically most interesting question is how society handles this simultaneity of the non-simultaneous. How does late modern society cope with its transition from an ecologist (modernist) to a post-ecologist (postmodernist) politics of nature – a transition which it evidently cannot hold up, but which, from the ecologist perspective, still appears as fundamentally unacceptable? This question represents a kind of post-ecologist reformulation of the environmental problem. It shifts the emphasis from philosophical and moral issues (defending nature as an absolute normative standard) to exclusively strategic-political issues (naturalizing exclusion and pacifying ecologists). With regard to the analysis of the theory and practice of ecological modernization, this post-ecologist reformulation of the ecological problem provides a most interesting point of departure. In the following section we will try to spell out the full implications of this post-ecologist approach.

#### **Reflexivity and self-referentiality: a post-ecologist assessment of ecological modernization theory**

From our post-ecologist perspective, we first have to substantiate the claim that ecological modernization theory is largely inadequate as a model for the analysis of contemporary eco-politics. Its most fundamental weakness appears to be what ecological modernization theory shares with its ecologist critics: the complete lack of an analysis into the essence of the environmental problem.

If we follow Arthur Mol, ecological modernization theory is supposed to fulfil a dual function:

First, ecological modernization is a social theory (...) for analysing the way modern society reacts on and tries to cope with one of its most serious contemporary problems: the ecological crisis. Second, ecological modernization is a normative theory, asserting that processes of environmental reform along the lines of ecological modernization are the best (...) way to conquer the ongoing burdening of modern society's sustenance base. If, and only if, modern society follows the path set out by the ecological modernization theory can the ecological crisis be controlled and eventually solved. (Mol, 1995: 49)

However, with regard to the analytical-descriptive function, one may wonder how we can expect to gain any insights about the ongoing ecological transformation of society, if we base our investigations on a theory that does not undertake any deeper analysis of the problem which is meant to trigger and determine this transformation. With regard to the normative function of this theoretical model, it is even more surprising how ecological modernization theorists can claim to offer the only available solution to the eco-problem, if they have so simplistic an

understanding of what this problem actually consists of. The validity of the conceptualization offered above may, of course, be contested, but our analysis has definitely demonstrated that we cannot simply go back to the practice of regarding environmental problems and ecological risks as objective external physical realities which merely need to be internalized into the economic system. Even if we were in principle prepared to accept the assumption that the 'burdening of modern society's sustenance base' is the problem, we would certainly want to know *whose* sustenance base this is meant to be, *what* we may count towards it in terms of its constituents, and *whom or what* we may regard as the burden that is to be removed.

Furthermore, given that the ecological problem remains so strikingly under-theorized, we can hardly expect much of the ecological rationality which according to ecological modernization theorists has now largely emancipated itself from its economic counterpart, thus fulfilling the essential precondition for the subsequent integration of the 'two equally valued domains' (Mol, 1995: 30). If there can be any talk of an independent ecological rationality that is at least vaguely comparable to the economic rationality, we may expect to be told the ecological pendant to the unambiguous economic code of *payment or non-payment*. Any closer investigation, however, immediately reveals that such a code is not easily available.<sup>11</sup> Ecological modernization theory, however, does not even recognize this problem, let alone solve it. With its positivist belief that the environmental problem is of a scientifically measurable physical nature, that we are by and large in agreement about its definition, and that an ecological rationality (our ecological common sense) will tell us how to deal with it most effectively, ecological modernization theory reproduces the full set of modernist beliefs.

Its language of the 'emancipation of ecology', the 'institutional self-reformation' of late modern society, and of the project of 're-embedding' that 'cannot be a reversal of the historical dis-embedding' (Mol, 1995: 29), clearly places ecological modernization theory in the immediate vicinity of early critical theory.<sup>12</sup> Yet, whilst the Frankfurt School was at least aware that the project of enlightenment about the Enlightenment invariably leads into problems of self-referentiality,<sup>13</sup> ecological modernization theorists have no qualms about preaching the ecological self-reformation of the institutions of modern society. Despite its flirtations with the idea of reflexivity, ecological modernization theory undoubtedly remains what its proponents are keen to avoid: 'a belated exponent of the old phase of simple modernization' (Mol, 1995: 393). It fails to take into account that after the abolition of the grand rational coherence any ecological rationality that could guide the institutional transformation of modern society becomes arbitrary in terms of its underlying fundamentalisms. Unsurprisingly, ecological modernization theorists make little effort to spell out or even legitimate the set of values they regard as ecological. Similarly, they become extremely vague when it comes to justifying why exactly the economic rationality should be restricted at all. In this respect, the following quotation can be regarded as paradigmatic:

*Because of the impossibility of life, and especially meaningful life, if ecological qualities are not safeguarded, other rationalities (...) should only be allowed to function within the strict boundaries set by ecological rationality. (Mol, 1996: 308; my emphasis)*

It is interesting to note that Mol makes reference to what our above analysis of the environmental problem showed to be the crucial point: the category of meaning. But from our above investigations we know that such a statement cannot be sustained. There is no justification for the normative *should*; there is no evidence for the impossibility of life; and even the category of meaning is sufficiently flexible to adapt itself to changing social and cultural circumstances.<sup>14</sup> Unless ecological modernization theorists spell out *whose* life they are talking about, *what* the concept of meaning is meant to signify, and *why* it is required at all, they fail to address some of the most crucial underlying questions. From an eco-politics point of view the confidence in the capability of ecological modernization theory is, of course, fully destroyed if we are told that 'as a typically Western theoretical framework' ecological modernization theory 'is not equipped' to deal with questions related to 'the international distribution of (ecological and other) costs and benefits' (Mol, 1995: 55). As we have seen above, the distribution of – and the participation in – opportunities of life are, more than anything, the central questions an adequate theory of contemporary eco-politics has to deal with. We may therefore legitimately wonder what can be expected from a theory that light-heartedly declares to have 'little attention for aspects of democracy or inequality in connection with environmental reform' (*ibid.*: 401).

It should go without saying that these deficiencies of ecological modernization theory and the impossibility to establish one independent and unambiguous ecological rationality that could guide society's self-transformation towards sustainability do not mean that modernization processes – which might even be described as ecological improvements – are once and for all impossible. There is plenty of evidence that production and consumption processes can be and are refined in such a way that they come closer to whatever is regarded as ecologically correct and desirable. Efficient mechanisms are available by means of which any monetary value can be placed on whatever is considered as endangered and worthy of protection. These refinement processes, however, do not take the whole of modern society any closer to an objectively definable and fixed state of sustainability, but they are part of a dynamic and multi-dimensional process which involves several competing ideas about what is (ecologically) necessary, and in which both the ecological goal posts as well as the means of achieving them are permanently being reviewed. The crucial point about the concept of reflexivity is that it does not only subject established practices and institutions to reform but, at the same time, also constantly redefines the yardstick of improvement and progress. If reflexivity is taken seriously, it completely replaces the principle of linearity by that of circularity. This total abolition of modern linearity, however, is the crucial point ecological modernization theorists are not prepared to accept. In their fundamentally modernist attempt to internalize the external, they reproduce the modernist dualism (and linearity), and refuse to take account of the fact that nature and ecology are no longer external, but social constructs which are multiple, and can be adapted as required. Against this background, the process of society's so-called ecologization can either be described as a process of constant change without any sense of direction, or – given the firmly established relations of power – as the implementation of very specific interests which have successfully been transfigured as ecological. It is evident that a theory aiming to describe the processes of social transformation in response to the ecological crisis necessarily

remains inappropriate, if it does not take into account the transition from the (late) modernist principle of reflexivity to the postmodernist principle of self-referentiality. In particular it remains inappropriate if it does not spell out what kind of values have been installed as ecological, and how their implementation is being organized. Keeping these limitations of ecological modernization theory in mind, we can finally ask what exactly the practice of ecological modernization achieves, and to what extent it may be regarded as appropriate and successful.

#### **Non-convinced ecological communication: a post-ecologist reassessment of the social practice of ecological modernization**

At the end of section three we came to the conclusion that despite the ongoing dissolution of the (ecologist) ecological problem, a theory of post-ecologist politics has to confront a problem that we described as the simultaneity of the non-simultaneous. At least from the humanist perspective of ecologism the transition from the ecologist principle of inclusion to the post-ecologist principle of exclusion appeared as barbaric, and the question emerged through what mechanisms modern society can make this transition bearable. The suggestion I now want to make is that this required mechanism is the practice of ecological modernization. With ecological modernization contemporary societies have found themselves a political practice which combines elements of an ecologist and a post-ecologist politics of nature. On the one hand, ecological modernization emulates the conditions of modernity, while on the other hand it does not obstruct the implementation of social exclusion. What ecological modernization preserves or restores is, as we have seen, not any specific state of the physical environment, but the modernist belief in the nature-society dualism, and the illusion of rational progress and control. In a post-ecologist context where binding ecological norms and standards of ecological responsibility are not available, and the social distribution of opportunities of life is largely regulated by the principles of financial and political power, ecological modernization simulates progress towards a more rational/ecological organization of society for the benefit of universal human wealth and welfare. Environmental hyperactivity reassures us that progress and improvement are possible, and reproduces the old Greenpeace belief according to which 'the optimism of action is better than the pessimism of thought'. At the same time, ecological modernization secures the continuation of post-ecologist politics by avoiding a re-ideologization of the environmental debate. Under conditions of fundamental uncertainty and insecurity the re-installation of invariably ideological concepts of nature as guiding principles of social organization remains an attractive option. This could imply chances of development as well as threats; in any case it would mean the abolition of postmodern plurality and the re-entry into a new modernity. In both a positive and a negative sense, ecological modernization is a protective device against such an emergence of new modernities, i.e. a device of securing the continuation of post-ecologist politics.

Ecological modernization promotes and facilitates the continuation of the established socio-economic practices (with adaptations) while at the same time confirming the belief that society is performing the ecological U-turn. Through mechanisms like ecological taxation it delays the exhaustion of whatever society

regards as its ecological limitations (specific resources, available waste dump capacities, biodiversity, etc.), and thereby makes time for a three-dimensional process of adaptation: firstly, for the naturalization of new (surrogate) materials, strategies and patterns of behavior replacing what had formerly been perceived as natural; secondly, for the naturalization of the social impact of these new materials, strategies and practices, i.e. increasing social exclusion; and thirdly, for the full emergence of the postmodern individual whose self-understanding and meaning-requirements differ from those of the modernist subject. Once this postmodern individual has fully emerged, this will put an end to the simultaneity of the non-simultaneous, the experience of an ecological problem, and the possibility of ecological criticism. Wherever this threefold transition has not yet been successfully completed, late modern society identifies new imperatives of avoidance, i.e. the need for further ecological modernization.

In the light of these considerations, it would now appear that whilst the *theory* of ecological modernization is as insufficient as the ecologist ideology it sought to replace, the *political practice* of ecological modernization is a highly appropriate strategy for tackling late modern society's environmental problem in its post-ecological reformulation. Its most central characteristic is its attempt to cope with the postmodern situation of fundamental uncertainty and insecurity, which emerges from the postmodern pluralization of (ecological) knowledge and rationality. Borrowing an expression Niklas Luhmann coined, we may describe ecological modernization as the *Ecology of Not-Knowing*. Whether it was intended by Luhmann or not, this title of a 1992 essay can be read in two different ways: firstly, it refers to a particular kind of ecological politics; secondly, it implies the question of how late modern society can cope with being reduced to mere beliefs, i.e. how we accommodate ourselves in a condition where we cannot refer to any reliable normative standards. In his essay, Luhmann does not elaborate on this ambiguity, but it is evident that both of these aspects are highly relevant in our context. As Luhmann points out, the most important requirement in a situation of fundamental uncertainty is the transition from the *communication of persuasion* (*Überzeugung*) to the *communication of agreement* (*Verständigung*):

This involves a societal code of practice that values discreteness and does not make any effort at all to persuade those who have to get on with one another that they should change their beliefs. The point is not to convince anybody or influence them in any other way. (Luhmann, 1992: 194)

Under conditions of radical uncertainty, so Luhmann points out, late modern societies have to develop a 'culture of non-persuasive communication' (ibid.: 202), which is 'satisfied with *agreement*' (ibid.: 194; my emphasis), and in which 'the only objective is cease-fire' (ibid.). Obviously, this Luhmannite notion of agreement is diametrically opposed to the Habermasian understanding of the concept.<sup>15</sup> Luhmann goes beyond any normative belief in rationality and re-designates the concept of agreement to a condition where the fundamental incompatibility between different opinions is sufficiently invisible, i.e. where communication partners have managed to find formulae which leave sufficient room for individual (contradictory) interpretation. It is immediately evident that the main obstacle to the achievement of communicative cease-fire in Luhmann's sense is any kind of

ethics and ideology including all forms of rational fundamentalism. Eco-ethics and ecological fundamentalism strongly base themselves on the power of their supposedly better argument and insist on the possibility – indeed the necessity – to convert society at large. Therefore, they are not 'particularly beneficial to the achievement of agreement' (ibid.: 195), and, as Luhmann points out, they should be introduced into the ecological discourse 'only when it aims to break off communication' (ibid.: 196). But the practice of ecological modernization succeeds in bringing about the agreement ecological fundamentalism fails to achieve.

In conclusion to these considerations, ecological modernization can therefore finally be described as society's *post-ecologist discourse of non-convinced ecological communication*. As we have seen, this discourse renounces ethics and ideology. Its participants are increasingly aware of the fundamental uncertainty on all sides. Given the multiplicity of ecological diagnoses, interests and remedies, they rehearse a culture of knowing about each other's cognitive limitations and political restrictions. Ecological modernization practices a culture of tolerance and respect which seems most adequate in a framework of fundamental uncertainty. In the interest of an adequate assessment of ecological modernization, it is important to note that contrary to what the ecologist criticism seems to imply, ecological modernization has not been purposefully installed in order to serve the interests of only some sectors of society.<sup>16</sup> Instead, it has emerged as a societal practice that is beneficial to all parties involved. What it achieves is the continuation of communication in a context that obstructs Habermasian understanding. Most certainly, Hajer is fully right with his suggestion that 'ecological modernization will set the tone of environmental policy-making in the years to come' (Hajer, 1995: 262). But the reason for this is not, as ecological modernization theorists would like to believe, that it paves the way to ecological sustainability. And it is equally erroneous to argue that this practice will stay with us although it is utterly inappropriate. Ecological modernization is here to stay because it is a highly appropriate remedy for late modern society's problem of making the transition to a post-ecologist politics of nature bearable. As the UN have recently demonstrated in Kyoto, it preserves the belief in rational progress and improvement, and secures social peace whilst the opportunities of life are being redistributed according to the principles of wealth and power.

#### Notes

1. In this section I am drawing on – and clarifying – ideas from my article 'A Theory of Post-Ecologist Politics' (1997).
2. As a matter of fact, very similar questions *are* being raised in the context of the debate on *sustainability* (for a very helpful overview see Dobson's (1995) analysis and typology of environmental *sustainabilities*). For its lack of philosophical interest and experience, however, this debate conspicuously avoids unpacking the normative implications of sustainability.
3. In the recent literature, particularly studies with a more or less clearly developed constructionist leaning have pointed the direction for the required research (e.g. Yearley, 1991; Hajer, 1995; Hannigan, 1995; Dickens, 1996; Eder, 1996a). As a general trend, however, these studies focus on the social mechanisms by which particular issues

- are constructed and installed as focuses of public concern, but they do not provide an answer to the question of why such concern can emerge at all (on the limitations of most social constructionist approaches and suggestions for a refined constructionist research agenda see Blühdorn, 1998).
4. In order to pre-empt any 'realist' criticism of this approach, it might be worth pointing out that considering environmental problems as discursive constructions rather than physical realities does neither amount to denying 'that the world, including its living components, really does exist apart from humanity's perceptions and beliefs about it' (Soulé and Lease, 1995: xv), nor does it dispute that ecological problems have a physical dimension. The criticism that ecological constructionists are trying to talk problems away – see, for example, the wide spread reservations vis-à-vis Niklas Luhmann's view of the ecological issue (Beck, 1988: 165-76; Rucht and Roth, 1992; Metzner, 1993) – in order to 'justify further exploitative tinkering with what little remains' of nature (Soulé and Lease, 1995: xv), rests on the implicit assumption that the discursive reality of social perceptions is *less real* than that of the physical sciences. In a context in which (democratic) policy making evidently responds first and foremost to the vote-securing concerns of the electorate, and in which scientific experts and counter experts continue to generate competing versions of the allegedly objective physical reality, such an assumption is equally ignorant and obsolete. For a more detailed discussion of the constructionist/realist dispute see Blühdorn, 1998.
  5. Goldblatt tries a similar distinction. As will be argued below, neither Goldblatt's categories nor the ones suggested above, can really be considered as three irreducible categories. Nevertheless, this distinction reflects the *prima facie* perception of a clear difference between aesthetic, material, and ethical concerns.
  6. Habermas's attempt to establish a 'communicative reason' that unfolds in a utopian 'ideal speech situation' may be regarded as the project of finding an alternative post-metaphysical source of meaning (Habermas, 1984, 1987). The issues of nature and ecology, on the other hand, have never featured prominently in Habermas's work (see e.g. Eckersley, 1990, 1992).
  7. Hence Bill McKibben's concern that after the end of nature 'there is nothing but us' (1990: 55), and 'we can no longer imagine that we are part of something larger than ourselves' (ibid.: 78).
  8. This is not to say that any environmental activist would answer the question for her/his motivation at this abstract level. Obviously a whole series of much more immediate reasons can be given for environmental activism and the necessity to protect nature. Nevertheless, any rational discourse about the question of why we should protect nature ultimately leads to the principle of all-inclusiveness, or the modernist belief in the universality of reason.
  9. In as much as such criteria have really never existed, the dissolution of the (ecologist) environmental problem is, of course, no more than the realization that ecologists used to universalize one particular form of rationality, not noticing that they were installing fundamentalisms which are difficult to justify once exposed to social discourse.
  10. One may, for example, think of the official farewell to the ideal of full(-time)-employment, the dismantling of the welfare state, and the re-emergence of wide spread poverty even in traditionally rich countries. The ever more evidently uneven social distribution of wealth, and the far-reaching suspension of the individual rights of the poorer strata of society is increasingly regarded as inevitable if not legitimate. Mechanisms restricting access even to essential goods and services to those who can pay for them are widely accepted. Provided the goods in question have been defined as ecologically sensitive, such mechanisms are often even celebrated as so-called eco-taxes.

11. Two possible candidates may be the binary pairs *natural/unnatural* and *sustainable/unsustainable*. In both cases, however, we clearly make reference to values which precede the respective dualism, i.e. which can neither be deduced from the respective distinction, nor measured by its criteria.
12. Early critical theory was, of course, not concerned with environmental problems in today's sense. Nevertheless, its conceptualization of the nature/society relationship, and its investigations into the possibilities of a rational self-critique of society are extremely valuable for contemporary ecological thought. For the relationship between critical theory and ecological thought see e.g. Eckersley, 1992; Dobson, 1993.
13. This problem of the self-referentiality of post-transcendental reason was the point of departure for both main contemporary theoretical currents: on the one hand the attempt to reform and thereby save critical theory (Habermas and Beck), and on the other hand, the post-critical project of systems theory (Niklas Luhmann).
14. As we argued above, meaning emerges from the embeddedness of human rationality into the grand rational coherence which is symbolized by nature. Phrased in more analytical terms, meaning always emerges from *distinction* and *exclusion* – in our case the distinction between the rational and the natural, and the exclusion of the natural from the rational. Obviously, distinction and exclusion can not just be applied in the modernist sense (one single underlying dualism), but just as well in a postmodernist sense, which then, of course, fragments the societal coherence. Nevertheless, distinction and exclusion within society can still function as a source of (obviously no longer all-embracing, metaphysical) meaning.
15. For Habermas the process of reaching agreement implies 'a process of mutually convincing one another in which the actions of participants are coordinated on the basis of *motivation by reasons*' (Habermas, 1984: 392; emphasis omitted in the translation). Habermas, in other words, retains the normative belief in (communicative) reason.
16. In a 1996 article Hajer rehearses the widely shared argument that ecological modernization is not 'the product of the maturation of the social movements', but rather 'the repressive answer to radical environmental discourse' (Hajer, 1996: 254).

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