

INTRODUCTION TO THE SPECIAL ISSUE

Does Discourse Matter? Discourse Analysis in Environmental Policy Making

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Introduction: Environmental Discourse as a Policy Problem

This Special Issue is concerned with theories and methodologies of discourse analysis and their contribution to environmental policy research in particular. It is a response to three theoretical challenges in the field of environmental policy and public management of natural resources: (i) environmental policy problems are obviously the effect of social constructions although they concern 'natural' objects; (ii) struggles about concepts, knowledge and meaning are an essential element of environmental policy; (iii) environmental discourse has material and power effects as well as being the effect of material practices and power relations. These three challenges question to what extent is environmental policy about 'nature' and the 'environment'?

After shortly explaining these challenges, this introduction will sketch out particularities of the discursive perspective and distinguish between a Foucaultian and non-Foucaultian perspective. Following this, it will be shown how the contributors to the Special Issue use discourse analysis to treat nature and environment as contested concepts. The paper concludes with a discussion concerning achievements of and challenges to discourse analysis in environmental policy and planning.

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- (i) Environmental problems are not self-evident, they imply complex and systemic interdependencies, they often build up over long time intervals and large spatial areas. In the environmental policy arena problems are typically not defined in common sense language, but in expert terms of reference. This is particularly evident for global environmental problems, such as climate change, biodiversity loss and desertification. Articulating environmental problems beyond local evidence of, for example, degradation of lakes, soil, groundwater, forests etc., requires conceptual frameworks and analytical capacities. In other terms, environmental problems are 'socially constructed', building on expert language and concepts, research practices and available technology. Global resource scarcity became an issue only after the use of computer modelling (Meadows *et al.*, 1972); climate change hypothesis triggered large science-based research that builds on globally distributed measuring stations and on complex computer models (cf. Wohlforth, 2004); and biodiversity loss was conceptually constructed as a 'global' phenomenon, now being 'observed' by a global monitoring system (e.g. Biota Africa, 2005; Bulte *et al.*, 2005). On a local and national level, toxic substances became an issue only after the development of analytical technologies and health research. Saying that environmental problems are socially constructed does not mean that there are no illnesses, malnutrition, loss of species and natural beauty, floods etc. caused by contaminated water and polluted air, by drought, logging or a rising ocean level. Instead, it means that there is not one authoritative interpretation of these events but multiple contested interpretations. When occurrences are interpreted as elements of dynamic and systemic developments, as anthropogenically caused or as posing management problems, the realm of environmental discourse is entered.
- (ii) The articulation of an environmental problem shapes if and how the problem is dealt with. The environmental discourse might lack resonance amongst the relevant public. Other policy problems might be considered more pressing. Or the problem might be dealt with in terms of something other than environmental policy. For example, resource scarcity can be answered with geopolitics (NEPDG, 2001, pp. 8-1ff.; cf. Klare, 2001; Le Billon, 2005), climate change be handled as a security issue (Schwartz & Randell, 2003), or environmental policy as an issue of competitiveness (cf. Scholz & Staehler, 1999). In sum, environmental discourse is part of a broader discursive landscape. On the one hand, environmental discourse competes with other discourses, for example economic or development discourses; on the other, environmental discourse is internally interwoven with other discourses, for example if the Convention on Biological Diversity (CBD, 1992) connects use and protection of resources and treats gene plant resources as a commodity. These broader discursive formations are critical to the question of if and how a situation is understood, communicated and treated as an environmental problem. This implies that environmental discourse is not homogeneous. Rather, basic concepts, such as 'nature', 'progress' or 'sustainability' are contested. Moreover, the knowledge base of environmental policy remains fragile and contentious. The familiar dispute between experts and counter-experts (cf. Fischer, 1990) can be understood as an expression of both the fragility of knowledge and the contestability of basic concepts. And to the degree that environmental policies, strategies and dispute resolution rely on expert judgements, the latter become part of political struggle as well.

- (iii) The concepts that are part of environmental discourse (the 'knowledge') are intertwined with practices, institutional capacities and technologies, or they are part of it (see below). They have a material and institutional basis. They also have a history. They are rooted in specific cultural and political formations. They enable people to see and articulate certain features of the world but not others. They help to legitimate certain practices but not others. They are an element of power formations. In that way, they incorporate bias.¹ But it is also the interconnectedness of knowledge with practices, institutional capacities and technologies that renders difficult the intelligence and articulation of society–nature interactions or the acceptance of environmental discourse. This is especially true where environmental problems are related to everyday practices, to consumption patterns and to the organization of infrastructures for basic needs, such as food, housing and mobility.

Taking a discursive perspective allows one to understand how 'nature' and 'the environment' are continuously 'produced' through environmental policy making, planning, research and development as well as through everyday practices. It also allows one to ask if environmental policy is about nature and the environment at all or rather about a redistribution and reconfiguration of power in the name of the 'environment'.

Foucaultian and Non-Foucaultian Concepts of Discourse

But what does it mean to engage in discourse analysis? A wide range of practices classify themselves as discourse analysis. They differ with regard to their ontological and epistemological premises as well as with regard to their methodology. Nevertheless, there is enough common ground among discursive approaches to allow seven strengths of discourse analysis to be highlighted: (i) a particular awareness of the role of language in constituting policies, politics and polities; (ii) a sceptical attitude toward claims of a single rationality and objective truth; (iii) an inclination to regard knowledge² as contingent and principally contestable; (iv) an interest in bias effects of dominant types of language and knowledge; (v) a shared understanding that language and knowledge need to be understood as an aspect of power and as exerting power effects; (vi) an interest in practices (i.e. professional and everyday practices) as constitutive of power relations and knowledge systems; and (vii) a strong emancipatory motive and an interest in democratizing knowledge production and policy making. In sum, discourse analysis problematizes what conventional policy analysts take for granted: the linguistic, identity and knowledge base of policy making. This includes a special awareness of the processes by and through which policy problems and even policy arenas are constructed. A discourse analysis of policy making shows how environmental problems and a related set of subjects and objects are discursively produced and rendered governable.

What constitutes environmental discourse remains contested among discourse analysts. The main cleavage runs between Foucaultian and non-Foucaultian concepts of discourse. Most non-Foucaultians follow approaches that can be linked theoretically to symbolic interactionism (Goffman, 1974; Mead, 1934). Non-Foucaultian discourse analysis focuses on the linguistic and pragmatic production of meaning. From this perspective, environmental discourse is the ensemble of ideas and concepts that are related to the topic of

environment (cf. Huber, 2001, pp. 274ff.). The concept of environment relates humans and society to the 'natural' systems with which they interact and to the 'natural' resources they use. Environmental discourse includes numerous sub-topics, such as air quality, climate change, toxic substances and nature protection. It encompasses quite diverse ways of talking and thinking about the environment (Feindt, 2002). Since the late nineteenth century, an aesthetic and ethical critique of modernity and industrialization developed, leading to the valuation (and to some extent protection) of natural beauty and wildlife in most Western societies. Around 1970 most Western democracies started to institutionalize comprehensive environmental regulation (e.g. air and water quality), mainly in a science-based mode and on the grounds of public health considerations. During the same period, a critique of the dominating model of progress developed on the base of ecosystem research, cybernetics and futurology (e.g. Boulding & Mukerjee, 1972; Carson, 1962; Commoner, 1971; Kapp, 1950; Mumford, 1967). During the 1970s, this discursive line culminated in the discussion on 'limits to growth' (Meadows *et al.*, 1972), displaying considerable moral appeal to individuals and collectives to alter their behaviour. During the 1980s and especially after the Bhopal and Chernobyl incidents, the concept of risk became prominent (e.g. Beck, 1992; Johnson & Covello, 1991; Shubik, 1991; Waterstone, 1992), opening the door for politicizing regulatory decisions and highlighting the role of value judgements. Distributive issues in environmental policy making became the focus of the environmental justice discourse (e.g. Shrader-Frechette, 2002). Rooting in the 1980s, the discourse of environmental modernization (e.g. Hajer, 1995) has become influential in a number of constituencies. Whether the sustainability discourse that was established through the Rio Process and the UNCED in 1992 still qualifies as an environmental discourse, remains contested.

A Foucaultian perspective on discourse is more interested in knowledge than in language (cf. Keller, 2004, pp. 13–60). Foucault (1998, p. 100) defines discourse as an ensemble of statements—"a series of discontinuous segments"—whereby the term statement is not limited to speech acts but is meant to include texts, tables and arrangements of things, such as architecture. In the remaining part of this section, four characteristics that distinguish Foucaultian discourse analysis from other types of discourse analysis will be highlighted.

First, in a Foucaultian take on discourse the focus is on the productive function of discourses. For Foucault, a discourse is constitutive of 'reality' in that it physically shapes reality. A discourse constitutes specific ways of being engaged with the world and of being related to it. A discourse establishes what is 'true' based on socially accepted modes of knowledge production. But it is also "in discourse that power and knowledge are joined together" (Foucault, 1998, p. 100). By delineating legitimate forms of truth production from illegitimate ones, a discursive formation includes the establishment of the terms of its reproduction and the allocation of empowering and disempowering subject positions.

Secondly, from a Foucaultian point of view, power relations are present in all forms of social interaction: "Power is everywhere; not because it embraces everything, but because it comes from everywhere" (Foucault, 1998, p. 93). The Foucaultian understanding of discourse implies a conception of power as constitutive and productive and not limited to repressive effects (cf. Foucault, 1998, p. 93). Power is understood as a web of force relations made up of local centres of power around which specific discourses, strategies of power and techniques for the appropriation of knowledge cluster (Foucault, 1998, pp. 92–93).

Thirdly, Foucault analyses discourse as a 'strategic situation' that is formative of actors, that enables and constrains them by shaping their field of opportunities and by limiting their freedom. Comprehensive systems of power relations are constituted by the behaviour of actors "and yet it is often the case that no one is there to have invented them, and few who can be said to have formulated them" (Foucault, 1998, p. 95). Hence, Foucault conceives discourses as locations of tensions and struggle. At any moment in time, a multiplicity of discursive elements is arranged in various strategies of power. Foucault is interested in the reconstruction of this distribution of discourses, the mechanisms implied, the effects which are produced and changes therein over time. The emergence of new objects and subjects of discourse or of new problematizations is indicative of a transformation or shift in the discursive landscape.

The final point is especially intriguing for the analysis of environmental policy. From a Foucaultian perspective, the realm of power relations extends to the construction of subjectivity. The term 'subject' points at the same time to an actor capable of initiating action and to a being subjected by power (Foucault, 1982, p. 212), so that actors are never fully determined by a strategic situation. The self-conceptualizations of actors are analysed as strategies of "governing the self". They are considered an important realm of politics and need to be included in the analysis of environmental politics. Government takes place at the interface that links strategies of governing the self with strategies of governing the population as a whole; hence, concepts of nature and the environment need to be analysed with regard to their role in constituting objects and subjects. A Foucaultian discourse analysis of environmental policy making would have to show how political problems and a related set of subjects and objects are discursively produced and rendered governable (cf. Gottweis, 2003, p. 261).

Contested Natures

A joint focus among the contributions to this Special Issue are the discursive processes through which 'nature' is constructed. But the authors also highlight how concepts of nature produce society. For example, the dominant understanding of a resource as being scarce or of a landscape as being void creates and destroys opportunities for different groups of people.

An analysis of nature as socio-culturally produced has been pursued by a wide range of academic disciplines (the following list is mostly, but not exclusively, based on MacNaghten & Urry, 1998, p. 7), for each of which a few seminal studies will be cited: anthropology (Douglas, 1992; Milton, 1993, 1996), archaeology (Bender, 1993), cultural history (Arnold, 1996; Robertson *et al.*, 1996; Ross, 1994; Schama, 1995; Wilson, 1992; Wright, 1996), geography (Barnes & Duncan, 1992; Cloke *et al.*, 1994; Fitzsimmons, 1989), international relations (Blatter & Ingram, 2001; Dalby, 2002; Litfin, 1998, 1994), literary studies (Wheeler, 1995), studies of post/modernity (Lash *et al.*, 1996); philosophy (O'Neill, 1993), politics (Darier, 1999; Dobson, 1990; Fischer & Hajer, 1999; Gottweis, 1998; McCormick, 1991, 1995), sociology (Beck, 1992, 1996; Benton, 1993; Dickens, 1992, 1996; Eder, 1996; Martell, 1994; Redclift & Benton, 1994), the sociology of science (Yearly, 1991, 1996) and women's studies (Haraway, 1991; Merchant, 1982; Shiva, 1988, 1991, 1994). All of these approaches share roots in social constructivism that is extended to constructions of nature.

The six papers presented in this Special Issue draw on the term 'discourse' in order to analyse the practices by which 'nature' is being produced and problematized. All six contributors base their understanding of the term discourse more or less on Foucault. A discourse does not describe a pre-existing 'reality', nor does it simply limit one's perception to preconceived terms of discourse. For Foucault, a discourse is constitutive of 'reality' in that it physically shapes reality. A discourse constitutes a specific way of being engaged with the world and related to it. Each of the contributors to this Special Issue combines a Foucaultian understanding of the term discourse with other theoretical backgrounds. This section provides a short overview of the theoretical strands that have informed the contributions to this Special Issue.

The first contribution is written by Maarten Hajer & Wytse Versteeg. Hajer played an important role in establishing discourse analysis in the field of environmental policy studies. His seminal study (Hajer, 1995) built on Foucault's terminology of discourse, but diverged from Foucault's work in two important aspects. For Hajer & Versteeg, discourse is "an ensemble of ideas, concepts and categories through which meaning is given to social and physical phenomena" (Hajer & Versteeg, 2005, p. 1). The aim of discourse analysis is to detect linguistic regularities (Hajer & Versteeg, 2005). Language is not a neutral messenger of given interests and preferences, but it influences their very formation. Moreover, it enables and limits the range of practices and interactions in which actors can engage. A first important point of departure from Foucault is Hajer's emphasis on actor coalitions. Hajer draws on theories of social interactionism by Harré & Billig in order to re-centre actors (Billig *et al.*, 1988; Davies & Harré, 1990; Harré, 1993). In Hajer's discourse analysis, actors position themselves in the realm of given discourses and try to shape discourses (Hajer & Versteeg, 2005). The analysis of discourse politics aims at explanations of why and how contingent concepts and practices came into effect. A second point of departure is Hajer's emphasis on democratizing policy making. This makes his analysis, to some extent, complementary to theories of deliberative democracy (Elster, 1998; Habermas, 1996). Hajer is explicitly interested in the democratic quality of public policy debate and he applies the concept of deliberativeness to the work of policy analysts themselves (Hajer & Wagenaar, 2003), echoing the debate on democratization of policy analysis (deLeon, 1997; Fischer, 2000, 2003). Epistemologically, deliberative policy analysis follows the linguistic and pragmatic turn in philosophy (Austin, 1962; Rorty, 1992; Searle, 1969) and the "argumentative turn in policy analysis and planning" (Fischer & Forester, 1993).

The contribution by Angela Oels to this Special Issue explores how environmental problems are rendered governable drawing on Foucault's concept of governmentality (Foucault, 2000, 2004a, 2004b). Oels explores the idea that there are parallels between the changing role and form of government on the one hand and transformations in environmental discourse on the other, (Oels, 2005). The idea is that the production of environmental issues is facilitated by a specific governmentality that renders them governable. A shift in governmentality will be reflected in the production of a different kind of environmental problem. Oels' contribution is an example of the growing discipline of governmentality studies (Dean, 1999; Dean & Hindess, 1998; Lemke, 2002) and its applications to environmental issues (Darier, 1999; Luke, 1999a, 1999b; Rutherford, 1999; Slocum, 2004). Foucault's concept of governmentality provides an interesting tool for mapping historical changes in the configuration of state and power. The exercise of

power is no longer equated with the exercise of sovereignty, instead a range of decentralized modes of exercising (state) power are introduced. Foucault's claim (Foucault, 2004a, 2004b) that the governmentality of advanced liberal government is reconfiguring government in Western industrialized states from the late 1970s onwards is introduced by Oels and applied to the field of environmental discourse and climate change. Oels explores the idea that the shift in governmentalities from biopower to advanced liberal government is reflected in the shift in environmental discourse from green governmentality (Luke, 1999a, 1999b) to (weak) ecological modernization (Hajer, 1995) in the field of climate change. Oels' contribution shows that the range of available policy options is limited by the governmentality and environmental discourse that render an environmental issue governable.

The two contributions by Johannes Dingler and Michael Shapiro to this Special Issue are based on a critical assessment of the epistemological and political conditions underlying the production of 'modern' knowledge. These encompass Lyotard's (1984) view of modern knowledge as constituting a particular grand narrative rather than a complex of neutral and universal knowledge, as well as Derrida's (1978) method of deconstruction and the feminist critique of political theory and science (Butler, 1990, 2004; Haraway, 1991). In this line of reasoning, the idea of a single rationality is abandoned in favour of a close analysis of how texts produce effects through establishing differences or disguising alternatives. It is demonstrated how the narrative of one universal rationality is used to set up and support partial and biased practices, to silence alternative views and to disguise power effects. From this point of view, the democratic process cannot be expected to create consensus through argumentation. Instead it must be used to contest unjustified normative and factual claims and to disrupt power relations. In the face of multiple contested natures, keeping debates open and issues contestable becomes a value in itself: "Whereas in modern thought the main challenge was how to legitimize validity claims the main challenge for postmodern thought is the bearing of contingency" (Dingler, 2005). This is reminiscent of Rorty's (1989) "primacy of democracy over philosophy" and his plea for irony as a political and scientific attitude. The deconstructive method is a strong tool to delegitimize political narratives and to reveal the political content of what is presented as 'apolitical' pieces of knowledge or art. In the context of environmental politics, a deconstructive reading of concepts, such as sustainability, can reveal the social functions of the constructed society-nature divide. As Shapiro (2005) demonstrates, the sustainability discourse is connected to the construction not only of landscapes, but also of ethnoscaples, rendering whole parts of the population, especially indigenous peoples, invisible (cf. Pratt, 1992, esp. pp. 111-143). Thus, environmental discourse is related not only to environmental politics, but also to cultural politics and to politics of citizenship.

Stephen Healy, in his contribution to this Special Issue, draws on the recently established 'science studies' to reconstruct how scientific knowledge about 'nature' is intimately connected to the apparatuses, technologies etc. of their time (Haraway, 1997; Latour, 1993, 2004). These observations are rather sobering for the popular idea that scientists discover a nature that exists independently as the Other of society. Science studies demonstrate how 'nature' is co-produced in the laboratory. This finding undermines scientific claims to privileged knowledge about 'nature' and exposes the problematic premises of the natural sciences. Moreover, the non-human entities in the scientific process are no longer regarded

as passive objects of measurement but as 'actants' (Latour) themselves. From this perspective, the modern natural sciences have been so successful because the conditions of the laboratory have been reproduced on the world at large (Healy, 2005, p. 10). The normative and political message of these studies is plainly that nature is a contingent and potentially a contested concept and that scientific knowledge about nature is as valid as, for example, any poetic concept of nature, depending on the discursive setting. On this ground, privileged roles for experts in (not only) environmental policy and planning can be challenged in favour of more dialogical modes. Since the appropriation and internalization of the nature–society relation is constituted through practices, the difference between elite and participatory practices has far-reaching implications for the meaning of nature–society relations as well as for the identity and self-understanding of the citizenship. This embeddedness of nature–society relations in cultural identities, political institutions and social practices reproduces a certain kind of environmental policy and planning at the expense of alternative ones (Healy, 2005).

The contributions by Michael Shapiro and by Roger Keil & Anne-Marie Debanné show that even time and space as basic categories of planning activities should be treated as socially constructed. From this perspective, discourses play a crucial role, not only in stating the kind of problems to be dealt with, but also in constituting the arenas in which actors can compete, dominate or co-operate. Thus, actors have strong incentives to engage in politics of 'scaling', i.e. in the ongoing negotiation about which issues need to be dealt with at which level of space and time. Moreover, in planning activities multiple scales (e.g. the local, national and global) function as divergent frames of reference, allowing and necessitating actors to develop complex strategies for preserving their interest (Keil & Debanné, 2005). The scaling approach is highly interesting for the analysis of environmental politics for at least two reasons. First, it allows insights into how, under conditions of multi-level governance, divergent discourses can be linked to different policy arenas, constituting complex and possibly unequal opportunity structures for different groups of actors. Secondly, the understanding of 'scaling politics', as motivated by political and economic interests, opens the road for a conceptual integration of discourse analysis and political economy.

Discourse Analysis of Environmental Politics—Achievements and Challenges

The study of environmental politics has been transformed by discourse analysis in a number of ways. First, the environment is no longer regarded as lying 'outside' society but as discursively co-produced. Environmental problems are not taken as objectively 'given' but their representation is recognized as an effect of linguistic regularities, which implies that their constitution reflects strategies of power and knowledge. Modernist claims to one single concept of nature are refused on the ground that they do not avoid but hide relativism (Dingler, 2005). Knowledge about nature is historically and socially situated just the way all knowledge claims are. Thus, discourse analysis offers an explanation as to why it is so easy to challenge claims that environmental policy making is a 'necessity' based on objective 'natural' limits. Environmentalists, administrators and environmental scientists are cautioned to make transparent their implicit value judgements and societal priorities instead of speaking of scientifically proven 'necessities'. Having

eliminated the universalism/relativism duality, discourse analysis opens space for multiple concepts of nature. An open question in discourse analysis is how to theorize the links between the material and the symbolic dimensions of discourses about nature. Building on the works of Bruno Latour and Jacques Derrida, respectively, Stephen Healy and Johannes Dingler argue in their contributions to this Special Issue that there is no material 'nature' outside discourse. While Dingler takes a radical post-modern stance on 'nature', Stephen Healy specifies the mechanisms of translation between nature and discourse exercised, for example, by laboratories and technical devices.

Secondly, discourse analysis offers a reflexive understanding of 'the political' and transforms the practice of policy analysis. Discourse analysis allows one to study the power effects produced by and built into environmental discourse. The environmental discourse that constitutes an environmental problem enables and constrains the available policy options and the range of legitimate actors for its resolution. Discourse analysis can draw attention to marginalized discourses which offer alternative policy options. The article by Maarten Hajer & Wytse Versteeg highlights the major differences between conventional policy analysis and discourse analytical approaches and argues that much more than a change in terminology is implied. Angela Oels analyses the discourses and practices that shape the 'global' politics of climate change. She problematizes the way in which climate change is constructed as a 'global' issue that needs to be addressed by the international community as a whole, while obscuring the potential for action at regional, national and local levels. She studies the ways that climate change is rendered governable and concludes that a neoliberal governmentality is limiting the politics of climate change to efficiency measures which will not be sufficient to prevent global warming.

Thirdly, discourse analysis provides insight into the processes of subject and object formation. It shows that, like all discourses, environmental discourse constitutes identities, expectations and responsibilities that play their part in disciplining individuals and society at large. Michael Shapiro presents a practical example of how power leaves inscriptions on body and land in his assessment of the 1984 Bhopal incidence, the 1785 Land Ordinance Survey and contemporary working practices which exploit illegal immigrants. Shapiro's reading of the Land Ordinance Survey and its underlying ideology reveals how partial discourses can shape apparently universal and abstract practices.

However, the way in which actor and structure are linked (for example by discourses and related practices) needs clarification. Maarten Hajer & Wytse Versteeg hint at the practices of political debate and suggest that speakers are motivated to engage in discourse because they are in a situation of policy competition. Doing so, constellations of actors with individual intentions and interests on the one hand and discursive constellations on the other are mediated through competitive public arenas (e.g. the media). Stephen Healy concentrates on the interlinkage between communicative setting, individual motivations and modes of interaction. His analysis of participatory and deliberative modes of policy making demonstrates how different discursive formations (structure) allow for more or less open arenas of policy making, where openness includes the consideration of motives as to why people should engage in policy making (actors) at all. Again, actor and structure are mediated through policy arenas which can be distinguished with regard to openness or bias. Roger Keil & Anne-Marie Debbané (2005) point to "social agendas of policies beyond the

stated objectives, e.g. social control, economic growth, liberation". Accordingly, they analyse the interplay between discursive politics, economic activities, management and planning practices and complex bargaining processes. Nevertheless, the integration of different degrees of freedom actors have facing discursive constellations remains a theoretical challenge to discourse analysis. This would include considerations about the mode in which actors relate to discourses: unaware, as a given, strategically, or orientated to consensus and mutual recognition.

Fourthly, discourse analysis allows one to conceive time and space as contested concepts. The introduction of the concept of scaling seeks to make a contribution to capturing the migration of the political from national government to multi-actor multi-level forms of governance. The article by Roger Keil & Anne-Marie Debbané demonstrates how discourse analysis can accommodate the interdependence of local, national and transnational discourses. Local politics is reinterpreted as a struggle between competing discourse coalitions. Policy making is reconceptualized as the product of the interaction of all three discursive realms (the local, the national and the global) in the space of the urban.

Finally, discourse analysis opens up new opportunities for the democratization of the processes of naming and producing the 'environment'. All contributions provide evidence how discourses create basic regularities, such as space, time and scale on which more elaborate—and biased—political institutions and planning practices are built. It is in this context that Maarten Hajer & Wytske Versteeg and Roger Keil & Anne-Marie Debbané reflect that discourses are regularities and constitute policy arenas. Discourses contribute to processes of institutionalization and show characteristics of institutions without being liable to democratic practices. Thus discourse analysis helps to reflect on the preconditions and limitations of environmental justice and democracy.

By addressing these contentious issues in an innovative way, all contributions to this Special Issue make a valuable contribution to enhancing the state of the art of discourse analysis.

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Notes

1. In this context, the environmental justice perspective might be regarded as one attempt to drive the environmental discourse reflective on its own pre-assumptions and distributive consequences.
2. That is both explicit linguistic terms and concepts as well as the structure of tacit background knowledge.

References

- Arnold, D. (1996) *The Problem of Nature: environment, culture and European expansion* (Oxford: Blackwell).
- Austin, J. L. (1962) *How to do things with words* (Cambridge: Harvard University Press).
- Barnes, T. & Duncan, J. (Eds) (1992) *Writing Worlds: discourse, text and metaphor in the representation of landscape* (London: Routledge).
- Beck, U. (1992) *Risk society: towards a new modernity* (London & Newbury Park, Ca.: Sage Publications).
- Beck, U. (1996) World risk society as cosmopolitan society? Ecological questions in a framework of manufactured uncertainties, *Theory, Culture & Society*, 13, pp. 1–32.
- Bender, B. (1993) *Landscape: politics and perspectives* (Oxford: Berg).
- Benton, T. (1993) *Natural Relations: ecology, animal rights and social justice* (London: Verso).
- Billig, M., Condor, S., Edwards, D., Gane, M., Middleton, D. & Radley, A. (1988) *Ideological Dilemmas: a social psychology of everyday thinking* (London: Sage).
- Biota Africa (2005) Biota Africa. An International Research Network on biodiversity, sustainable use and conservation. Available at: <http://www.biota-africa.org/1024/frames/biota-africa.htm> (accessed June 3).
- Blatter, J. & Ingram, H. (Eds) (2001) *Reflections on Water: new approaches to transboundary conflicts and cooperation* (Cambridge, Massachusetts: MIT Press).
- Boulding, K. E. & Mukerjee T. (Eds) (1972) *Economic imperialism: a book of readings* (Ann Arbor: University of Michigan Press).
- Bulte, E. & Hector, A. & Laigauderie, A. (2005) *EcoServices. Assessing the impacts of biodiversity changes on ecosystem functioning and services*. Diversitas Report No. 3.
- Butler, J. (1990) *Gender trouble: feminism and the subversion of identity* (New York: Routledge).
- Butler, J. (2004) *Undoing gender* (New York: Routledge).
- Carson, R. (1962) *Silent Spring* (New York: Fawcett Crest).
- CBD (1992) Convention on Biological Diversity. Available at: <http://www.biodiv.org/doc/legal/cbd-en.pdf> (accessed 30 May, 2005).
- Cloke, P., Doel, M., Matless, D., Philips, M. & Thrift, N. (1994) *Writing the Rural* (London: Paul Chapman).
- Commoner, B. (1971) *The closing circle: nature, man, and technology* (New York: Knopf).
- Dalby, S. (2002) *Environmental Security* (Minneapolis: University of Minnesota Press).
- Darier, É. (Ed.) (1999) *Discourses of the Environment* (Malden, Massachusetts: Blackwell Publishers).
- Davies, B. & Harré, R. (1990) Positioning: the discursive production of selves, *Journal for the Theory of Social Behaviour*, 20/1, pp. 43–63.
- Dean, M. (2003 [1999]) *Governmentality: power and rule in modern society* (London: Sage Publications).
- Dean, M. & Hindess, B. (Eds) (1998) *Governing Australia: studies in contemporary rationalities of government* (Melbourne: Cambridge University Press).
- DeLeon, P. (1997) *Democracy and the policy sciences* (Albany: State University of New York Press).
- Derrida, J. (1978) *Writing and difference* (Chicago: University of Chicago Press).
- Dickens, P. (1992) *Society and Nature* (Hemel Hempstead: Harvester Wheatsheaf).
- Dickens, P. (1996) *Reconstructing Nature* (London: Routledge).
- Dingler, J. (2005) The Discursive Nature of Nature. Towards a Postmodern Concept of Nature, *Journal of Environmental Policy & Planning*, 7(3), pp. 209–225.
- Dobson, A. (1990) *Green Political Thought* (London: HarperCollins).
- Douglas, M. (1992) *Risk and Blame* (London: Routledge).
- Eder, K. (1996) *The Social Construction of Nature* (London: Sage).
- Elster, J. (Ed.) (1998) *Deliberative democracy* (Cambridge & New York: Cambridge University Press).
- Feindt, P. H. (2002) Alle gegen Niemand. Zur Entwicklung des Umwelt- und Nachhaltigkeitsdiskurses in Deutschland, *Forschungsjournal Neue Soziale Bewegungen*, 13/4, pp. 20–28.
- Fischer, F. (1990) *Technocracy and the politics of expertise* (Newbury Park, Ca.: Sage Publications).
- Fischer, F. (2000) *Citizens, experts, and the environment: the politics of local knowledge* (Durham, NC: Duke University Press).
- Fischer, F. (2003) *Reframing public policy: discursive politics and deliberative practices* (Oxford: Oxford University Press).
- Fischer, F. & Forester, J. (1993) *The argumentative turn in policy and planning* (Durham/London: Duke University Press).
- Fischer, F. & Hajer, M.A. (Eds) (1999) *Living With Nature: environmental politics as cultural discourse* (Oxford: Oxford University Press).
- Fitzsimmons, M. (1989) The matter of nature, *Antipode*, 21, pp. 106–120.

- Foucault, M. (1982) Afterword: the subject in power, in H. L. Dreyfus & P. Rabinow (Eds) *Michel Foucault: beyond structuralism and hermeneutics*, pp. 208–225 (Chicago: University of Chicago Press).
- Foucault, M. (1998) *The Will to Knowledge: the history of sexuality volume 1* (London: Penguin Books), French original 1976.
- Foucault, M. (2000 [1994]) Governmentality, in: Foucault, M. (2000 [1994]) *The essential works of Foucault, 1954–1984*, Paul Rabinow, series editor, pp. 201–222 (New York: The New Press).
- Foucault, M. (2004a [1978]) *Geschichte der Gouvernementalität I: Sicherheit, Territorium, Bevölkerung, Vorlesung am College de France 1977–1978* (Ed. M. Sennelart) (Frankfurt a.M.: Suhrkamp Verlag).
- Foucault, M. (2004b [1979]) *Geschichte der Gouvernementalität II: Die Geburt der Biopolitik, Vorlesung am College de France 1978–1979* (Ed. M. Sennelart) (Frankfurt a.M.: Suhrkamp Verlag).
- Goffman, E. (1974) *Frame analysis: an essay in the organization of experience* (Cambridge, Mass.: Harvard University Press).
- Gottweis, H. (1998) *Governing Molecules: The discursive politics of genetic engineering in Europe and the United States* (Cambridge, Massachusetts: MIT Press).
- Gottweis, H. (2003) Theoretical strategies of poststructuralist policy analysis: towards an analytics of government, in: M. Hajer & H. Wagenaar (Eds) *Deliberative Policy Analysis: understanding governance in the network society*, pp. 247–265 (Cambridge: Cambridge University Press).
- Habermas, J. (1996) *Between facts and norms: contributions to a discourse theory of law and democracy* (Cambridge, Mass.: MIT Press).
- Hajer, M. (1995) *The politics of environmental discourse* (Oxford: Clarendon Press).
- Hajer, M. & Versteeg, W. (2005) A Decade of Discourse Analysis of Environmental Politics: Achievements, Challenges, Perspectives. *Journal of Environmental Policy & Planning*, 7(3), pp. 175–184.
- Hajer, M. & Wagenaar, H. (Ed.) (2003) *Deliberative policy analysis: understanding governance in the network society* (Cambridge: Cambridge University Press).
- Haraway, D. (1991) *Simians, Cyborgs, and Women. The reinvention of nature* (London: Free Association Books).
- Haraway, D. (1997) *Modest_Witness@Second_Millennium.FemaleMan_Meets_OncoMouse™: feminism and techmoscience* (New York: Routledge).
- Harré, R. (1993) *Social Being* (Oxford: Blackwell).
- Healy, S. (2005) Toward a Vocabulary for Speaking of the Engagement of Things into Discourse. *Journal of Environmental Policy & Planning*, 7(3), pp. 239–256.
- Huber, J. (2001) *Allgemeine Umweltsoziologie* (Opladen: Westdeutscher Verlag).
- Johnson, B. B. & Covello, V. T. (1991) *The Social and cultural construction of risk: essays on risk selection and perception* (Dordrecht: Kluwer).
- Kapp, K. W. (1950) *The Social Costs of Private Enterprise* (Cambridge: Harvard University Press).
- Keil, R. & Debbané, A.-M. (2005) Scaling Discourse Analysis: Experiences from Hermanus, South Africa and Walvis Bay, Namibia, *Journal of Environmental Policy & Planning*, 7(3).
- Keller, R. (2004) *Diskursforschung. Eine Einführung für SozialwissenschaftlerInnen* (Opladen: Leske + Budrich).
- Klare, M. T. (2001) *Resource wars: the new landscape of global conflict* (New York: Metropolitan Books).
- Lash, S., Szerszynski, B. & Wynne, B. (Eds) (1996) *Risk, Environment and Modernity: towards a new ecology* (London: Sage).
- Latour, B. (1993) *We have never been modern* (Cambridge, Mass.: Harvard University Press).
- Latour, B. (2004) *Politics of nature: how to bring the sciences into democracy* (Cambridge, Massachusetts: Harvard University Press).
- Le Billon, P. (Ed.) (2005) *The geopolitics of resource wars: resource dependence, governance and violence* (London: Frank Cass).
- Lemke, T. (2002) Foucault, Governmentality, and Critique, *Rethinking Marxism*, 14(3), pp. 49–64.
- Litfin, K. (1994) *Ozone discourse: science and politics in global environmental cooperation* (New York: Columbia University Press).
- Litfin, K. (Ed.) (1998) *The Greening of Sovereignty in World Politics* (Cambridge, Massachusetts: MIT Press).
- Luke, T. (1999a) Environmentality as Green Governmentality, in: E. Darier (Ed.) *Discourses of the Environment*, pp. 121–151 (Oxford: Blackwell Publishers).
- Luke, T. (1999b) Eco-Managerialism: environmental studies as a power/knowledge formation, in: F. Fisher & M. A. Hajer (Eds.) *Living with nature: environmental politics as cultural discourse* (Oxford: Oxford University Press).
- Liotard, J.-F. (1984) *The postmodern condition: a report on knowledge* (Minneapolis: University of Minnesota Press).

- MacNaghten, P. & Urry, J. (1998) *Contested Natures* (London: Sage).
- Martell, L. (1994) *Ecology and Society: an introduction* (Amherst: University of Massachusetts Press).
- McCormick, J. (1991) *British Politics and the Environment* (Chichester: Wiley).
- McCormick, J. (1995) *The Global Environmental Movement*, 2nd edn (Chichester: Wiley).
- Mead, G. H. (1934) *Mind, self and society from the standpoint of a social behaviorist* (Chicago, Ill.: University of Chicago Press).
- Meadows, D. H., Meadows, D. L., Randers, J. & Behrens III, W. W. (1972) *The Limits to Growth* (New York: Universe Books).
- Merchant, C. (1982) *The Death of Nature: women, ecology and the scientific revolution* (San Francisco: Harper and Row).
- Milton, K. (Ed.) (1993) *Environmentalism: the view from anthropology* (London: Routledge).
- Milton, K. (1996) *Environmentalism and Cultural Theory* (London: Routledge).
- Mumford, L. (1967) *The myth of the machine* (New York: Harcourt, Brace & World).
- NEPDG—National Energy Policy Development Group (2001) *National Energy Policy* (Washington: US Government Printing Office).
- O'Neill, J. (1993) *Ecology, Policy and Politics* (London: Routledge).
- Oels, A. (2005) Rendering Climate Change Governable: From Biopower to Advanced Liberal Government?, *Journal of Environmental Policy & Planning*, 7(3), pp. 185–207.
- Pratt, M. L. 1992: *Travel Writing and Transculturation* (Routledge: London/New York).
- Redclift, M. & Benton, T. (Eds) (1994) *Social Theory and the Global Environment* (London: Routledge).
- Robertson, G., Mash, M., Tickner, L., Bird, J., Curtis, B. & Putnam, Y. (1996) *Future Natural: nature, science, culture* (London: Routledge)
- Rorty, R. (1989) *Contingency, irony, and solidarity* (Cambridge & New York: Cambridge University Press).
- Rorty, R. (1992) *The Linguistic turn: essays in philosophical method* (Chicago: University of Chicago Press).
- Ross, A. (1994) *The Chicago Gangster Theory of Life: nature's debt to society* (London: Verso).
- Rutherford, P. (1999) The Entry of Life into History, in: E. Darier (Ed.) *Discourses of the Environment*, pp. 37–62 (Oxford: Blackwell Publishers).
- Schama, S. (1995) *Landscape and Memory* (London: HarperCollins).
- Scholz, C. M. & Staehler, F. (1999) *Unilateral environmental policy and international competitiveness* (Tuebingen: Mohr Siebeck).
- Schwartz, P. & Randell, D. (2003) An Abrupt Climate Change Scenario and its Implications for United States National Security. Available at http://www.climate.org/PDF/clim_change_scenario.pdf (accessed 30 May, 2005).
- Searle, J. (1969) *Speech acts: an essay in the philosophy of language* (London: Cambridge University Press).
- Shapiro, M. (2005) The Discursive Spaces of Global Politics, *Journal of Environmental Policy & Planning*, 7(3), pp. 227–238.
- Shiva, V. (1988) *Staying alive: women, ecology and development* (London: Zed Books).
- Shiva, V. (1991) *Ecology and the Politics of Survival: conflicts over natural resources in India* (New Delhi: Sage).
- Shiva, V. (1994) *Close to Home: women reconnect ecology, health and development* (London: Earthscan).
- Shrader-Frechette, K. S. (2002) *Environmental justice: creating equality, reclaiming democracy* (Oxford & New York: Oxford University Press).
- Shubik, M. (Ed.) (1991) *Risk, organizations, and society* (Norwell, Ma.: Kluwer).
- Slocum, R. (2004) Consumer citizens and the Cities for Climate Protection campaign, *Environment and Planning A*, 36, pp. 763–782.
- Watersone, M. (Ed.) (1992) *Risk and society: the interaction of science, technology, and public policy* (Dordrecht & Boston: Kluwer).
- Wheeler, M. (Ed.) (1995) *Ruskin and the Environment* (Manchester: Manchester University Press).
- Wilson, A. (1992) *The Culture of Nature: North American landscape from Disney to the Exxon Valdez* (Cambridge, MA: Blackwell).
- Wohlforth, C. (2004) *The whale and the supercomputer: on the northern front of climate change* (New York: North Point Press).
- Wright, P. (1996) *The Village that Died for England: the strange story of Tyneham* (London: Vintage).
- Yearly, S. (1991) *The Green Case: a sociology of environmental issues, arguments and politics* (London: HarperCollins).
- Yearly, S. (1996) *Sociology, Environmentalism, Globalization* (London: Sage).