THE POLITICS OF RESILIENCE
– A QUALITATIVE ANALYSIS OF RESILIENCE THEORY AS AN ENVIRONMENTAL DISCOURSE

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Exam paper for Advanced Course in Sociology

Fall term 2007
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Abstract

During recent years, resilience theory – originally developed in systems ecology – has advanced as a new approach to sustainable development. However, it is still more of an academic theory than a discourse informing environmental politics. The aim of this essay is to study resilience theory as a potential environmental discourse in the making and to outline the political implications it might induce. To gain a more comprehensive knowledge of resilience theory, I study it in relation to already existing environmental discourses. Following earlier research on environmental discourses I define the discourses of ecological modernization, green governmentality and civic environmentalism as occupying the discursive space of environmental politics. Further, I define six central components as characteristics for all environmental discourses. Outlining how both the existing environmental discourses and resilience theory relates to these components enables an understanding of both the political implications of resilience theory and of resilience theory as an environmental discourse in relation to existing environmental discourses. The six central discourse components I define are 1) the view on the nation-state; 2) the view on capitalism; 3) the view on civil society; 4) the view on political order; 5) the view on knowledge; 6) the view on human-nature relations. By doing an empirical textual analysis of academic texts on resilience theory I show that resilience theory assigns a limited role for the nation-state and a very important role for civil society and local actors when it comes to environmental politics. Its view on local actors and civil society is closely related to its relativist view on knowledge. Resilience theory views capitalism as a root of many environmental problems but with some political control and with changing perspectives this can be altered. Furthermore, resilience theory seems to advocate a weak bottom-up perspective on political order. Finally, resilience theory views human-nature relations as relations characterized by human adaptation to the prerequisites of nature. In conclusion, I argue that the empirical analysis show that resilience theory, as an environmental discourse, to a great extent resembles a subdivision of civic environmentalism called participatory multilateralism.

Keywords: Resilience theory, environmental discourse, ecological modernization, green governmentality, civic environmentalism, textual analysis.
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1 Introduction

During the last decades, the environment has gained increased attention both in society as a whole and in different fields of social science. Perhaps the most comprehensive and influential perspective on environmental issues is that of sustainable development. The concept of sustainable development is often defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED 1987: 8). Hence, sustainable development refers to how humans choose to organize their lives in relation to their physical surroundings, with both the present and the future in mind. The attempts to specify the somewhat ambiguous concept of sustainable development have lead to the creation of a wide array of both social theoretical perspectives and, most importantly, policy programs and discourses within the realm of environmental politics. In this essay I will study this discursive space of environmental politics with a focus on a new and upcoming discourse, namely that of resilience and resilience theory, within it. However, to define resilience theory as an already established environmental political discourse wouldn’t be entirely correct since it is still in its infancy and as for now it is more of an academic debate rather than a discourse informing policy formulations. Therefore I approach it as a potential environmental political discourse in the making.

According to Berkes et al. (2003b) and Walker and Salt (2006: ch. 1), resilience theory has ambitions to add a new and unique view on sustainable development. If these ambitions are realized, resilience theory might become an important aspect of environmental politics and as such, influence how society manages environmental problems. These potential societal implications also mean that resilience theory becomes interesting to study from a sociological perspective.

Resilience theory emerged from the academic discipline of ecology and it was developed in the attempts to understand and explain change and stability in ecological systems (Folke 2006: 254). The concept of resilience relates to the functioning of a system (Adger 2000: 349) and in the seminal work by C.S. Holling, ecological resilience is defined as “a measure of the persistence of systems and of their ability to absorb change and disturbance and still maintain the same relationships between populations or state variables” (Holling 1973: 14). Hence, resilience refers to a system’s ability to manage perturbations and stress without changing into a new state with new defining characteristics. Berkes et al. (2003b: 13) specify the concept along the following three dimensions: a) the amount of change the system can undergo and still retain the same controls on function and structure; b) the degree to which the system is
capable of self-organization; c) the ability to build and increase the capacity for learning and adaptation. Since their original focus on ecological systems, resilience theorists are now changing their focal point towards social-ecological systems as they are entering the fields of social science. Along the movement towards social sciences resilience theory have also succeeded in formulating some policy implications based on its arguments. Therefore, it comprises implications for practical policy within the space of environmental discourse. It is these implications I want to study in this essay.

1.1 The aim of the essay

The aim of this essay is to study the political implications existing within the framework of resilience theory and hence, to determine what policy this theory might induce. In other words, I will try to explore a potential politics of resilience and what such a politics might be composed of. Resilience theory is still under development and in an exploratory phase (Folke 2006). However, the academic research on resilience has reached a state where the formulations of policy implications at various levels of generality and specificity have been possible. These formulations constitute the basis for my research.

The aim of the research – to study the political implications existing within the framework of resilience theory – is too wide and vaguely defined to serve as the basis for an academic, well-structured empirical study. In the following section I will therefore specify it and reformulate it in a way that makes it suitable as an operational research question.

1.1.1 Operational question

The above-mentioned need for a reformulation of the research question is expressed in practical and methodological terms, but there is also a theoretical motivation behind such a need. Since environmental politics is an already existing space nested in a much wider space consisting of all types of politics, discourses already exist in this space. In this essay I adopt Bäckstrand and Lövbrand's (2006) conceptualization of existing environmental discourses. Bäckstrand and Lövbrand argue that the discursive space of environmental politics is comprised of the following three discourses: ecological modernization, green governmentality and civic environmentalism (Ibid: 51).

All of these discourses rest upon a set of implicit or explicit conceptions of humans, the environment and the relationship between these two. They also encompass conceptions of what environmental problems really are, what causes such problems and, most importantly, how such problems can be solved. These implicit and explicit conceptions constitute the basis for the policy each discourse represents. Thus, it is of great interest to study resilience theory
in relation to these already existing environmental discourses. If resilience theory turns out to rest upon the same conceptions as one of these existing discourses it will probably not induce policies that doesn’t already exist. However, if it turns out to rest upon completely different conceptions of humans, the environment, their relationship and environmental problems resilience theory might add something new to environmental politics. These two alternatives is however not the only possible ones. Instead, they should be conceived of as being two extreme points on a scale ranging from resilience theory being completely nested under a pre-existing discourse to resilience theory being an entirely distinct discourse on its own. Between these extreme points all other possible outcomes are located on the scale. These outcomes represent situations where resilience theory share some features with one or more already existing discourses while presenting other unique features. If resilience theory and the political discourse it might constitute turns out to end up in one of these intermediate positions on such a scale it should probably be conceived of as a hybrid discourse.6

By relating the potential political discourse of resilience theory to already existing environmental discourses, instead of studying it in isolation, the understanding of the former will improve significantly since this strategy relates the research object – in this case the potential discourse of resilience theory – to more general social phenomena and to a wider area of knowledge.

The theoretically motivated research strategy outlined above also adds methodological advantages since it provides guidelines for the empirical research. The theoretical approach, which here basically consists of a review of environmental discourses, creates a framework for how to study political discourses as it determines which elements of the discourses are of interest and which implicit and explicit conceptions they encompass. Hence, the theoretical framework structures the research and enables a more systematic empirical study.

With the brief mentioning of Bäckstrand and Lövbrand’s theory of existing environmental discourses and why it is motivated to relate resilience theory to such discourses instead of studying it in isolation in mind, I would like to formulate the following operational question that is to be answered in this essay:

- How are the political implications of resilience theory and the practical politics it might induce related to the environmental discourses of ecological modernization, green governmentality and civic environmentalism?

In the following chapter I will elaborate more thoroughly on the theoretical concepts informing my research. But before doing this, I would like to outline some key issues concerning the research I have carried out.
1.2 What to do and what not to do

In this essay I will study resilience theory as a potential environmental political discourse in the making and how this potential discourse relates to the already existing environmental discourses of ecological modernization, green governmentality and civic environmentalism. Although Bäckstrand and Lövbrand (2006) is the main theoretical inspiration for this conceptualization of environmental discourses, I will not limit my development of these concepts to the work of these authors. Instead, I will extend the discussion and refine the conceptualization of the three discourses by also referring to a wide array of different sources within the field of theories of environmental discourses. When discussing environmental discourses I will frame my discussion by identifying what I refer to as central discourse components. Central discourse components denote fundamental elements or dimensions within each discourse and might be conceived of as how each discourse views certain aspects of its surroundings. I will elaborate on this topic in detail below. For now it suffices to note that I define one coherent set of these central discourse components and theoretically these are applicable to every possible environmental discourse. However, each discourse is distinguished by how it relates to these components. The six central discourse components I identify are the following: 1) The view on the nation-state; 2) The view on capitalism; 3) The view on civil society; 4) The view on political order; 5) The view on knowledge; 6) The view on human-nature relations.

This theoretical framework will also serve as the analytical tool in my empirical analysis, since I will apply the same set of central discourse components to resilience theory. My research will concentrate on trying to find out how resilience theory as an environmental political discourse relates to these components.

When studying the contents of a discourse, or as in my case a discourse in the making, you are engaging in qualitative research, since every discourse is unique in terms of content. A multitude of different qualitative research methods and strategies are available for studying discourses (see e.g. Bergström & Boréus 2000; Phillips & Jørgensen 2000; Börjesson 2003) and most of them include some sort of textual analysis. However, since resilience theory is a political discourse in the making, the different types of texts available for analysis are very limited. E.g, I cannot study parliamentary decisions, political manifestos, etc. since such sources are practically nonexistent when it comes to resilience theory. Therefore, my empirical material consists of academic texts focusing on the sociological and political aspects of resilience theory. Overall this research will show that resilience theory ascribes a limited role to the nation-state, that it has a view on capitalism as being the root of many environmental problems but that this can change, that civil society and local participation is
crucial for a sustainable development, that it advocates a bottom-up political order, that it has a relativist view on knowledge and that it defines human-nature relations as human adaptation. In conclusion, I argue that this implies a rather strong resemblance between resilience theory as a potential environmental discourse and a version of civic environmentalism called participatory multilateralism. The resemblance with an already existing environmental discourse questions the impact resilience theory might have on environmental politics.

For the sake of clarity, I would like to mention what I am not intending to accomplish with my research. Since I approach resilience theory as a potential environmental political discourse in the making, I will not try to determine its prevalence. Nor will I try to assess the prospects for resilience theory to actually establish itself as an environmental political discourse. Further, I will not question the normative aspects of resilience theory and the policy it might induce. Finally, I will not question the scientific validity of resilience theory.

1.3 Outline of the essay

In the following chapter I account for my theoretical approach and describe how I conceive of the discursive space of environmental politics. At the core of this chapter lie the concepts of ecological modernization, green governmentality and civic environmentalism. Here, I will also define how I use the concept of political discourse, the concept of discursive space and what I mean by practical politics and policy.

Chapter 4 is the main methodological chapter in the essay. Here, I account for the textual analysis I am performing, how it is structured, which strategies of interpretations I am applying and how my empirical material has been sampled.

Then follows a chapter devoted to the results my empirical research has generated. This chapter is structured along the lines of the analytical tool, comprised of the six central discourse components I develop in my theoretical discussion. However, it opens with a description of the fundamental aspects of resilience theory. This description is not part of my empirical findings, but it makes my empirical research and my conclusions easier to comprehend. In the final chapter I summarize the general arguments put forward in the essay.
2 Theoretical approaches

In this chapter I will outline the theoretical approach informing my research. I begin with a general discussion on the concepts of environmental discourses and the related concepts of practical politics, policy and the discursive space of environmental politics. Then, I move on to outline the three environmental discourses of ecological modernization, green governmentality and civic environmentalism. I conclude the chapter with a summary of these discourses and a discussion on how this summary can bridge theory and empirical analysis.

2.1 Discourses, environmental discourses, practical politics and the discursive space of environmental politics

In line with both Hajer (1995) and Bäckstrand and Lövbrand (2006) I understand discourses as “a shared meaning of phenomena” (Ibid: 51). More precisely, I define a discourse as “a specific ensemble of ideas, concepts and categorizations that are produced, reproduced and transformed into a particular set of practices and through which meaning is given to physical and social realities” (Hajer 1995: 44). This conceptualization of discourses implies the existence of two distinct dimensions within a discourse. First of all, “discourse” refers to an ensemble of ideas, concepts and categorizations. This is the substantial dimension of a discourse since it denotes its theoretical contents. In relation to this dimension, the study of the actual ideas, concepts and categorizations comprising the discourse and how these are produced is central. In the second dimension these ideas, concepts and categorizations are turned into practice. Here, focus moves away from ideas and their origins to action and social practice and its institutionalization. Hajer uses the term “discourse institutionalization” to denote this transformation of ideas into practice (Hajer 1995: 61). Others have also tried to conceptualize this process in which ideas first are produced and then transformed into institutionalized social practice. Haldén (1997), for example, divide the process into three stages. In the first stage, called idealization, ideas and notions are formulated and then, in the second stage called discursive formation, these ideas and notions are devised and conceptualized more precisely. Then, in the third phase, called institutionalization, these conceptualizations are put into institutionalized practice (Ibid: 25). The first and second stages in Haldén's theory concurs with the first Hajerian dimension concerning discursive substance and the third stage coincide with Hajer's dimension of discourse institutionalization. Although Haldén offers a more refined conceptualization of discourses and discursive processes, I ascribe to Hajer's conceptualization in this essay since the purpose of my research renders
Haldén's refinement redundant. In the following sections I will elaborate on this choice further.

The Hajerian definition of discourse, outlined above, includes all possible types of ideas, concepts and categorizations. However, I am only interested in political ideas and political social action. Further specified, only ideas and institutionalized practice concerned with the relation between humans and societies and their physical surroundings – i.e. environmental politics – are of interest. With this in mind I can define what I mean by environmental political discourse: An environmental political discourse is a specific ensemble of ideas, concepts and categorizations concerned with environmental politics, that is produced, reproduced and transformed into a particular set of practices and through which meaning is given to physical and social realities.

When a discourse institutionalization occurs ideas are thus transformed into practice. This can, within the realm of environmental politics, according to Hajer, for instance denote shifting public investments from roads to railroads and the establishment of new political institutions within the governmental framework of a nation-state (Ibid: 61). Hajer defines this type of societal phenomena – or the practical outcome of discourse institutionalization – as “concrete policies” (Ibid.), and again I follow Hajer and define practical politics and policy as the practical social results of political discourses. Thus, I use the terms practical politics and policy interchangeably. Hence, the terms denote the processes in which discourses are institutionalized, how ideas are translated into practice and the immediate results of such processes and translations. In this view, practical politics can denote both physical and linguistic actions. Thus, in line with the majority of discourse analytical approaches, I do not separate action from language in any distinct fashion (Bergström & Boréus 2000: 235).

According to Michel Foucault, the development of history and historical change can be conceived of as the result of intra-, inter- and extradiscursive conflicts (Foucault 1991a). This implies, among other things, the existence of a multiplicity of discourses rather than one single discourse in every area in which a discourse is present. Consequently, which discourses that exist in a specific area are not determined in advance, except by previous interdiscursive conflicts, and, most importantly, the relation between a discourse and the area it occupies is not immanent. Which discourses occupying a specific area varies historically and therefore the area temporally precedes the specific discourse. One can object to this statement by referring to one important aspect of discourse analysis, namely the constructivist conception of language. If language, in one way or another, constitutes reality, a discourse does not merely provide a way to relate to certain phenomena or problems, it also defines and constitutes the phenomena and problems per se. However, I do not question this theoretical
approach, and when I argue that the area precedes the discourse my argument doesn’t contradict it. This is because I only argue that the possibility to establish a discourse is determined by the discourse’s externalities and it is these externalities, irrespective of whether they consist of other discourses, a material reality, the inherent tendency in language to construct reality or something else, I define as discursive space. Hence, a discursive space denotes an area, defined by extradiscursive conditions, in which one or several discourses are present and the discursive space of environmental politics therefore denotes the area in which environmental discourses are present. The content of this discursive space is, as noted above, not determined by anything but preceding interdiscursive conflicts.

I will in the remaining parts of this essay to a great extent leave the institutional dimension of discourses – discursive practice – unexplored and solely focus on what Hajer calls the specific ensemble of ideas, concepts and categorizations constituting the discourse. There is a rather straightforward reason for this narrowing of focal point. As I have mentioned above, I approach resilience theory as a potential environmental discourse in the making and as such, it has no practical, tangible dimension. Resilience theory as an environmental discourse simply does not have an institutional dimension. The conceptualization of discourses as comprised of both ensembles of ideas and institutionalized social practice implies an evolutionary conception of discourses: First, the ideas and concepts are elaborated and articulated into a somewhat coherent whole, and then they are turned into social practice. In light of this view, resilience theory is still in the first evolutionary step. This means that my research to a great extent will be about ideas and concepts rather than social practice or interdiscursive conflicts. Neither will I study the origins of the ideas comprising resilience theory or in what context they have emerged.

This is a severe reduction of what can be thought of as the discourse analytical framework and one might question whether or not I am actually doing a discourse analysis at all. Why do I not think of my own study as being an analysis of ideas and ideologies or simply an attempt to make a scientific theory comprehensible within a sociological perspective? To answer these questions, I would like to say the following: First of all, my interest in resilience theory is based on its possibility to actually transform into social practice and change environmental politics, both its shape and contents. It is as a potential politics of resilience I am interested in resilience theory, not as an ecological or sociological theory. Secondly, I would like to mention that I follow somewhat of a linguistic convention here. It is much more common in the literature on environmental politics to use the concept of environmental discourses than that of environmental ideologies. Finally, although I do not explicitly apply a social constructivist approach to language – a common approach in discourse analysis - in my
research here, such an approach still represents an important knowledge-philosophical point of departure to me and it comprises ontological and epistemological conceptions not applicable for the more materialist notion of ideas and ideologies often associated with analytical approaches to ideas and ideologies.

2.2 The discursive space of environmental politics
There have been several attempts to theorize environmental politics and to categorize the contents of its discursive space. However, more often than not these previous attempts are rather reductionist in terms of the number of discourses they actually identify as occupying the discursive space of environmental politics. Or they do the opposite; they define too many existing discourses. As examples of the first problem, too reductionist theories, I would like to mention parts of the literature on sustainable development and ecological modernization. It is very common to conflate the concepts of sustainable development and ecological modernization into a whole and use them almost synonymously (see e.g. Mol 2001: ch. 3; Berger et al. 2001). Even the work by Hajer (1995), which is an important source for the research I am carrying out here, falls into this body of reductivist literature. In the work of Hajer, and others in this area of work, there is a tendency to identify ecological modernization and nothing else as occupying the discursive space of environmental politics. No alternative and conflicting discourses are identified. But, as is often noted, if a concept means everything, it doesn’t mean anything. To specify our arguments, we need better categorizations of environmental discourses.

As examples of the latter problem, defining too many discourses, one can mention a wide array of literature trying to shed light on specific environmental issues and disputes. In this line of work it is common to identify specific discourses effective in specific or local environmental conflicts (for recent examples see e.g. McElhinny 2006; Grainger and Konteh 2005; Hansen 2004). But such attempts to theorize environmental discourses are too disparate and it is not possible to generalize such specific and local discourses with the purpose to apply them to policy areas they were not intended for without developing them into something they are not. And since I am interested in resilience theory as a general environmental discourse with a wide array of possible applications and since resilience theory has pretensions to be such a general theory, this kind of theorizing does not provide sufficient levels of generality to constitute an adequate theoretical approach for my research.

The discussion above leads to the following conclusion: one line of work that theorizes environmental discourses presents too general theories and another line presents too specific theories. In order to reach a better understanding of the discursive space of environmental
politics and of resilience theory as a potential environmental discourse, we need a theory between these lines of work. More straightforwardly put, we need to identify more than one, but not too many environmental discourses. Of course, there have been attempts to do this. Sachs (1999), for example, outlines three primary discourses, which he calls “the contest perspective”, “the astronaut’s perspective” and the “home perspective”, as currently framing the politics of the environment (Ibid: 30). However, there is a problem with Sachs’ categorization, related to its isolation from other attempts to theorize environmental discourses. I have not seen his categorization applied by any other but Sachs himself. This raises questions regarding the validity of his categorization. In a similar approach as Sachs, Harvey (1999) also defines three contesting environmental discourses: “ecological modernization, “the standard ‘view’ of environmental management” and “wise use” (Ibid.). I find Harvey’s categorization rather well developed, and it would probably be appropriate as a theoretical basis for such research I am doing here. But I still find it insufficient. I think Harvey’s categorization is incomplete and non-exhaustive, since it does not represent the contents of the discursive space of environmental politics satisfactorily.

One of the most comprehensive attempts to classify environmental discourses is Dryzek (1997). Dryzek starts by classifying discourses along two dimensions, which results in the identification of four general discourses (Ibid: 12-15). However, in a second step – in which he studies actually existing discourses – he specifies his arguments and identifies a total of nine different discourses active in the discursive space of environmental politics. Therefore, I argue that Dryzek’s account is both too general – in its first step – and to detailed – in its second step – to function as a theoretical approach informing empirical analyses.

Bäckstrand and Lövbrand (2006) manage to avoid the problems discussed above since they identify three well-defined and exhaustive discourses within the discursive space of environmental politics. One of these is ecological modernization, but since they also identify two other discourses - green governmentality and civic environmentalism - they do not fall back to the reductionism so often present in attempts to theorize environmental discourses.

Although Bäckstrand and Lövbrand develop their theoretical approach with the purpose to study politics concerning climate change, their conceptualization is also valid for studying the more general phenomenon of environmental politics.13

Below, by referring to Bäckstrand and Lövbrand and other social theorists, I outline the defining characteristics of ecological modernization, green governmentality and civic environmentalism.
2.2.1 Ecological modernization

As mentioned above, ecological modernization is both a sociological theory on societal development and human progress, and a political discourse concerned with environmental issues. As a sociological theory it basically subscribes to the belief in the existence of positive knowledge, in human progress and in humans as being rational subjects (Mol 2001: ch 3) – i.e. characteristic aspects of what is often referred to as modernity.\(^{14}\)\(^{15}\)

This proximity to modernity and its emphasis on progress and rationality is also evident in ecological modernization as environmental discourse, since it, according to Hajer, “in the most general terms […] can be defined as the discourse that recognizes the structural character of environmental problems but none the less assumes that existing political, economic, and social institutions can internalize the care for the environment” (Hajer 1995: 25). Hence, according to ecological modernization the solution to environmental problems is to be found in the already existing, modern, institutions of society.

The most distinct feature of ecological modernization is the notion of compatibility between economic growth and environmental sustainability and protection.\(^{16}\) The relation between economic growth and environmental sustainability is thus characterized as a positive-sum game with mutual gains for both parts. Not only can capitalism be restructured into a more environmentally friendly state, such restructuring is also profitable since, according to ecological modernization, “pollution prevention pays” (Ibid: 26). Although many of the anthropogenic environmental changes and problems of the 20\(^{th}\) century were caused by the industrialization and rationalization processes of modernity (Carolan 2004: 249) these processes also hold the solutions to such problems. According to ecological modernization, capitalism should no longer be seen as the cause of environmental problems, but their solution. However, to realize this “sustainable capitalism” (Elkington 1997) reforms of different magnitudes are required. Although ecological modernization emphasize market driven solutions to environmental problems, the “greening” of production necessary for long term environmental sustainability will not be realized without some government regulations and interventions. Therefore, according to Bäckstrand and Lövbrand (2006: 53), ecological modernization argues that business corporations should focus on developing innovative technologies with environmentally beneficial outcomes. To realize this redirection – which, according to Berger \textit{et al.} (2001: 58) and their review of ecological modernization, might include efforts to, e.g., reduce emissions at source and enhance resource efficiency – governments and other political actors must favor a policy making within which “nation-state intervention moves away from a mere hierarchical command and control policy-style and
towards a more decentralized policy-style, consensual negotiations, partial self-regulation (with legal boundaries), and the use of market mechanisms and instruments” (Ibid: 59).

Since ecological modernization favors market driven solutions to environmental problems and emphasizes the possible propitious outcomes of capitalism, in extension it also argues for a restricted role for governments and other political institutions of the nation-state.

Ecological modernization provides a rational, economistic and technocentric view of social and physical realities (Connelly & Smith 1999: 57-59). The economism inherent in the discourse results in a strategy focusing on production, private property and capitalism as critical factors for a sustainable society and the technocentrism reflects a belief in science and innovations as means to realize such a society. Combined, these two fundamental characteristics – economism and technocentrism – lead to a rather clear-cut conclusion: Business associations utilize rational thoughts and strategies in their quest for technological innovation that generates profits, and this process represents a rational solution to environmental problems since technological innovation can improve environmental sustainability. According to Eden (1999: 1306) “technocratic rationality is used by the business associations not only to sustain an exclusionary environmental debate but also to fight the inclusion of others forms, and thus to prevent the democratization of debate”. By presenting themselves as rational, the proponents of such exclusionary logic render all other strategies to handle environmental problems irrational. This exclusionary logic might be the reason why the literature reviewing ecological modernization as an environmental discourse almost exclusively identifies only two main actors when it comes to practical environmental politics: business corporations and different formal political institutions. Capitalism can provide the solutions to environmental problems by rational development of “greener” technologies and the political institutions, preferably the nation-state and other institutions at higher levels,\textsuperscript{17, 18} can realize this by creating legal frameworks for reasonably free markets. In line with the exclusionary logic outlined above, other actors, such as non-governmental organizations (NGOs) and other social constellations of what I will refer to as civil society,\textsuperscript{19} are irrational and cannot provide sustainable solutions to environmental problems.

Ecological modernization is a widespread and very dominant discourse within the realm of environmental politics (Hajer 1995: 30) and it is represented in a variety of settings.\textsuperscript{20} It is also a heterogeneous discourse and one might want to loosen up the picture of ecological modernization I have painted to emphasize this. Beginning with Hajer it is common to identify two main versions of ecological modernization (Ibid; Christoff 1996; Berger \textit{et al.} 2001; Bäckstrand & Lövbrand 2006). The version of ecological modernization I have described above is often referred to as weak ecological modernization (Ibid.). The other
version, often referred to as strong ecological modernization or reflexive ecological modernization (Ibid.), originates from an academic debate on the development of the risk society and the limits of existing societal institutional orders to handle environmental problems (Ibid: 53). This version also subscribes to the notion of a win-win situation between economic growth and sustainable development but “entails greater institutional reflexivity, democratization of environmental policy and a focus on the justice dimensions of environmental problems” (Ibid. see also Carter 2001: 214). Strong ecological modernization also tries to transcend the exclusionary logic of rationality and include various organizations from civil society in environmental politics (Bäckstrand & Lövbrand 2006: 53). According to Bäckstrand and Lövbrand, this version of ecological modernization is however not as prevalent as the weak version and they also point out the similarities between strong ecological modernization and some versions of civic environmentalism (Ibid.) outlined below.

2.2.2 Green governmentality

Governmentality is a concept originally developed by Michel Foucault (Foucault 1991b) and it has given rise to a comprehensive field of research in social science (Gustavsson & Hörnqvist 2003; see also Burchell et al. 1991; Rose 1995; Rose 1999). Governmentality refers to the “arts of government” (Luke 1995: 24) and Foucault initially developed it to describe the historical process of how rational thought, primarily economic rationality, has become the main principle for governing society (Ibid.). According to Foucault, with the entrance of governmentality into the arena of political rule, the “population comes to appear above all else as the ultimate end of government. In contrast to sovereignty, government has as its purpose not the act of government itself, but the welfare of the population, the improvement of its condition, the increase of its wealth, longevity, health etc [...] it is the population itself on which government will act” (Foucault 1991b: 100). By focusing on the citizens and their perceived needs, aspirations and attitudes, governments can maintain order and power since the population is effectively governing itself – by making the population the end of government the government is at the same time becoming the ultimate end of the population. Modern politics and the institutions of the nation-state are not about progress or attempts to govern isolated parts of social life. Rather, by applying various strategies of surveillance of populations, it is about controlling life itself. To capture the notion of such governmental strategies, Foucault developed the concept of biopolitics (Foucault 2006). Biopolitics refers to a set of techniques that treats groups of people as possible to guide in general but not to control in detail. Instead of trying to determine every single act of every individual, biopolitical strategies tries to organize a room open for some alternative choices.
and divergences but which in the end produces a specific aggregated result (Kihlberg 2006: 57). Biopolitics are practical political strategies aimed at administrating life itself since, in the words of Foucault, “life has now become […] an object of power” (Foucault 1994: 194, cited in Hardt & Negri 2000: 24)

According to Bäckstrand and Lövbrand we are witnessing a contemporary “green twist in governmentality” (Bäckstrand & Lövbrand 2006: 54). Governmental strategies are no longer aimed at only controlling social life, but also nature and human-nature relations. The concept of green governmentality is to a great extent developed by political scientist Timothy W. Luke (Luke 1995a; Luke 1995b; Luke 1999a; Luke 1999b), who is highly influenced by Foucault. His main hypothesis is that discourses of sustainable development and ecological modernization are the latest governmentality strategies developed by nation-states to maintain political power and order. However, in line with Bäckstrand and Lövbrand, I use the concept of green governmentality in a slightly different manner, since I define it as an environmental discourse per se, not a more general concept encapsulating discourses.

As an environmental discourse, green governmentality is characterized by a notion of a “global form of power tied to the modern administrative state, mega-science and big business” (Bäckstrand and Lövbrand 2006: 54). Practical politics aim at controlling and administrating life, and if this was associated with the birth of biology, criminology and medicine as authoritative expertise during 18th century governmentality, today this is associated with the development of different “eco-knowledges” – especially systems ecology (Luke 1999a). In line with the Foucauldian theory about the immanent relation between power and knowledge (Foucault 1980), Luke refers to the new and upcoming environmental research areas as power/knowledge formations establishing and maintaining social and natural order by formulating authoritative statements of truth (Luke 1999a). According to Luke, green governmentality argues that by focusing on academic science mankind can develop sustainable ways of living by carefully managing environmental resources and controlling human-nature relations. The disciplining power of nation-state institutions is supplemented by other political institutions at various organizational levels and, according to Bäckstrand and Lövbrand (2006: 54-55), by engaging scientific expert advisors in politics a rational and technocratic planetary management – i.e. green governmentality - is developing in the realm of politics.

In light of the environmental discourse of green governmentality, science and innovative technology becomes critical components of political order. Science produces knowledge legitimizing political interventions in practically every area of life – both social and ecological. Primarily, but not solely, such interventions are carried out by nation-states and
their institutions. But, as pointed out by Luke (1995a: 29), highly influential inter- and supranational organizations such as the UN and the World Bank also play important parts of the “terraforming” (Bäckstrand & Lövbrand 2006: 55) projects of green governmentality.

Just as ecological modernization, green governmentality is a discourse using rhetorics of rationality, instrumentalism and technocentrism to mobilize support for its end. It is an elitist and exclusionary discourse illegitimating alternative and contesting approaches to solve environmental problems (Ibid; Fogel 2003: 111-112). Fogel (Ibid: 106) uses the term “global gaze” to describe the detached and powerful views of nature and society that justify the policy programs of green governmentality.23 These policy programs are characterized by a top-down, technocratic, political order with nation-states and powerful regional and global organizations as essential political actors. This order extends the logics of biopolitics to include the rational regulation and management of all biological life – not only human – and its physical surroundings. The formation of eco-knowledges as power/knowledge systems excludes civil society - except elite academics – and local political alternatives from environmental politics.

Green governmentality also shows some resemblance with ecological modernization since they both provide managerial, expert-driven and technocratic approaches to environmental problem-solving (Bäckstrand & Lövbrand 2006: 57). But they diverge in especially one critical aspect. Ecological modernization focuses on production, capitalism and the win-win relation between economic growth and environmental sustainability, whereas capitalism within the discourse of green governmentality occupies a much more restricted position. Capitalism and business corporations do however play important roles for the processes of green governmentality, since they are part of contemporary development of science, technological innovation, environmental management programs and surveillance industries. But, and this is critical, according to green governmentality, business is not the solution to environmental problems, it is only a part of the strategies deployed by the logic of governmentality. Instead, the solution is to be found in the conjunction of scientific and political control and management of human, societal and environmental realities.

As they do with ecological modernization, Bäckstrand and Lövbrand identify two distinct versions of green governmentality. The version outlined above is defined as technocratic green governmentality and the other version as reflexive green governmentality (Ibid: 55). Reflexive green governmentality is a “softer” version of green governmentality, as it corrects the “grandiose ideas of planetary management and the hubris implicit in the power/knowledge nexus with an attitude of humility and self-reflection (Ibid; see also Litfin 1997; Jasanoff 2003). By explicitly making experts conscious of the cultural assumptions influencing their production of knowledges, the exclusionary logic of technocratic green governmentality is
relaxed and the inclusion of local political actors is made possible. Although reflexive green
governmentality is a softer version of its technocratic counterpart, it is still a discourse of
governmentality and the two versions share general characteristics.

2.2.3 Civic environmentalism
Civic environmentalism is the third and final environmental discourse identified by
Bäckstrand and Lövbrand (2006). As a theoretical concept civic environmentalism is often
said to originate from John (1994) who argued that civic environmentalism is to be conceived
of as a set of normative attitudes towards environmental politics. This set include a notion that
environmental policymaking should be organized bottom-up rather than top-down and that
participation by a multiplicity of actors – local and global, nation-states and NGOs etc. – is
essential for environmental sustainability (Ibid.) The notion of bottom-up political solutions
and participation is probably the most important aspect of civic environmentalism as an
environmental discourse. Thus, according to the rhetorics of civic environmentalism, the
inclusion of so-called marginalized groups and “polycentric, complex, ‘glocal’ and
multifaceted governance arrangements” are essential for realizing sustainable development
(Bäckstrand & Lövbrand 2006: 55). Those affected by the outcome of political decisions
should also be the ones making the decisions and this calls for “innovative problem-solving in
the private and the public sectors (Knopman et al. 1999: 25). By focusing on participation,
civic environmentalism also highlights the connection between environmental issues and the
wider social phenomena of democracy and justice. Participation do not only provide solutions
to environmental problems, it also creates a more democratic and just society writ large.

As with ecological modernization and green governmentality, Bäckstrand and
Lövbrand define civic environmentalism as a heterogeneous and contested discourse and
again, they identify two distinct versions of it (Bäckstrand & Lövbrand 2006: 56). The first
version, called participatory multilateralism, adheres to the principle of nation-state
sovereignty and the nation-states as exclusive decision-making authorities in international
politics, but stresses the importance of these state-centric orders being complemented by a
transnational civil society. Participatory multilateralism is a reformist discourse that
“promotes a pluralistic global environmental order and affirms the rise of public-private
partnerships between NGOs, business and governments as they hold the promise of result-
based environmental problem-solving” (Ibid.).

The second version of civic environmentalism identified by Bäckstrand and Lövbrand is
called radical civic environmentalism (Ibid.). In relation to participatory multilateralism it
holds strongly divergent views of nation-state sovereignty and capitalism. In the view of
radical civic environmentalism, international negotiation processes and the institutional framework comprising the order of global governance are characterized by relations of power and powerlessness. By promoting market-oriented policies, privatization and deregulation, powerful political and financial institutions such as the UN and the World Bank have a neo-liberal bias, thereby maintaining existing power structures. These power structures, including nation-state sovereignty, capitalism and patriarchy, are also the causes of anthropogenic environmental problems and therefore, this radical discourse calls for the restructuring of such power structures, which implies a restructuring of much of the global order of society (Ibid.).

Civic environmentalism is a critical counter-discourse and according to Bäckstrand and Lövbrand, not as prominent in global environmental politics as ecological modernization and green governmentality (Ibid: 69). However, in its reformist version it is starting to gain some ground in environmental politics (Ibid.).

2.3 The discursive space of environmental politics: A summary and a bridge between theory and empirical analysis

I have now outlined the three discourses occupying the discursive space of environmental politics. In this section, I will summarize this discussion and also, by using this summary as a bridge between theory and analysis, move one step closer to my empirical analysis. Hence, this section will contain methodological discussions rather than theoretical.

In order to accomplish a bridge between theory and analysis through summarizing, I will turn to two strategies developed in the field of ideational analysis. As mentioned above, ideas, concepts and categorizations, as well as practice are included in my definition of discourse. But, as I have also mentioned above, since I conceive of resilience theory as a potential environmental discourse in the making, my research is preoccupied with the study of ideas. When focusing on ideas, discourse analysis resembles ideational analytical approaches. This resemblance serves as a motivation for my turning to such approaches in the methodological attempt to bridge theory and analysis.

The first strategy I would like utilize is associated, among others, with Aronson (1989) and uses Weberian ideal types (Weber 1977) to approach sets – or ensembles – of ideas. Ideal types are heuristic reconstructions of certain phenomena and they are constructed by a detailed typology of the essential parts of such phenomena (Bergström & Böréus 2000: 158). When it comes to the study of ideas, these parts are primarily individual ideas constituting the ensemble. In light of this methodological strategy, my depiction of the discourses occupying the discursive space of environmental politics can be viewed as a depiction of three – or, since
I have outlined two subcategories for each discourse, six – ideal types. Each environmental discourse is an ideal type and the essential ideas constituting each discourse are outlined.

One problem with this approach is that the essential parts, i.e. central ideas, vary between the ideal types identified by the researcher. This means that, when research moves beyond reconstructions of general phenomena to the study of nongeneral issues, interideal typical comparisons – in my case this denotes interdiscursive comparisons – are difficult to achieve. A generalized example can clarify this problem: Let’s say discourse A is reconstructed by depicting parts X and Y and discourse B by parts K and L. Now, I want to study a new set of ideas – a potential discourse C. On what parts of this new set should I concentrate my research? Should I try to identify how it relates to parts X and Y or K and L, or should I ignore discourses A and B altogether and try to identify unique parts for it? All strategies are problematic, and in my view suboptimal. Instead of trying to reconstruct each discourse in isolation, without relating it to all other discourses, one should try to do the opposite. All discourses should – to facilitate interdiscursive comparisons – be reconstructed in the same way. Instead of identifying parts X and Y or K and L, one should try to identify parts $X_i$, $Y_i$, $K_i$ and $L_i$ – i.e. how all discourses at hand relate to the same parts, or in this case ideas. To accomplish this, I turn to a strategy, associated with e.g. Hylén (1991), with which a set of ideas is reconstructed by identifying some general dimensions. These dimensions are *ex ante* presupposed to be valid for each set of ideas. With this strategy, all environmental discourses I have identified are reconstructed by the same dimensions. Again, this facilitates interdiscursive comparisons.

Since dimensions are identified *ex ante* one risks to impose characteristics on the material that it does not show. Also, since dimensions always have predefined numerical or nonnumerical values this strategy can result in an analytical tool that creates results not corresponding to “reality”. Put differently, the validity of the analytical tool is questionable. I try to avoid this problem however, by keeping the dimensions I identify as open as possible, and I only use this strategy to motivate the identification of the same essential parts for all discourses. Therefore, my analytical tool can be conceived of as an ideal typical reconstruction that identifies the same essential ideas for every discourse. In line with the dimensional strategy these essential parts can assume different nonnumerical values, but in line with the ideal typical strategy these values are not predefined but generated via a detailed depiction of the discourses. Thus, my own methodological strategy is a synthesis of ideal types and dimensions. The essential ideas shared by all discourses I have identified, are in the remaining part of this essay referred to as *central discourse components*. 
Which components actually identified is of course critical with this strategy. I have chosen to generate the components by a thorough reading of texts outlining the discourses at hand. This means that the components are empirically valid. In order to clarify my discussion here, I have chosen to refer to each component as a “view” and they can thus be conceived of as a summary of how each discourse “view”, or relate to, some phenomena. In line with my dimensional strategy, every discourse “has a view” on each phenomenon and in line with my ideal typical strategy, what this view actually is is not defined in advance.

I have chosen to identify the following six central discourse components, or “views”: 1) View on the nation-state; 2) View on capitalism; 3) View on civil society; 4) View on political order; 5) View on knowledge; 6) View on human-nature relations. The first three components are concerned with political actors, and most importantly which actor that should dominate in order to reach solutions to environmental problems. The nation-state as a political actor does not need any further specification. However, both capitalism and civil society are rather vague concepts and they need some clarification. Capitalism cannot be an actor since it is an economical order, but private companies – the central feature of capitalism – can, and are, political actors. They are political actors, e.g., when they put pressure on nation-state governments to lower taxes, as lobbyists in political decision making, when they implement policy programs, etc. In line with Cohen and Arato (1993: 10) I define the concept of civil society as a sphere of social interaction located between the economical sphere – i.e. private corporations – and the sphere of the nation-state and its institutions. Thus, civil society refers to social constellations that fall outside the categories of nation-states and private companies, e.g. to such disparate actors as individuals and families, NGOs, social movements etc. The following component, the view on political order, is concerned with how the political order of society ought to be structured. Hence, it relates to a normative question of social order. Primarily, this has to do with whether politics should be structured top-down or bottom-up. Both alternatives conceive of political order as a hierarchy, but they differ in their view on this hierarchy. If one thinks society ought to be governed from the top by powerful political institutions such as nation-states, the European Union (EU) or the UN one has a top-down perspective. The alternative, society governed by grassroot actors controlling institutions at the top, is defined as a bottom-up perspective. The final two components are concerned with ontological issues. The first one, the view on knowledge, is related to the ontological status of knowledge and the second how the relation between nature and humans is to be understood.

In Table 2.1 I have summarized ecological modernization, green governmentality and civic environmentalism along their subcategories and according to how they relate to the six central discourse components. I have chosen to use the subdivision proposed by Bäckstrand and
Lövbrand since it refines my analytical tool. Instead of having three discourses, each and every one including sometimes rather widespread conceptions, I have six, more homogeneous, categories.

**Table 2.1 The discursive space of environmental politics: Ecological modernization, green governmentality and civic environmentalism summarized by subcategories and central discourse components**

<table>
<thead>
<tr>
<th>Central discourse component</th>
<th>Environmental discourse</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ecological modernization</td>
</tr>
<tr>
<td></td>
<td>Weak ecological modernization</td>
</tr>
<tr>
<td><strong>Political actors</strong></td>
<td>View on the nation-state</td>
</tr>
<tr>
<td></td>
<td>View on capitalism</td>
</tr>
<tr>
<td></td>
<td>View on civil society</td>
</tr>
<tr>
<td><strong>normative perspective</strong></td>
<td>View on political order</td>
</tr>
<tr>
<td><strong>ontological perspective</strong></td>
<td>View on knowledge</td>
</tr>
<tr>
<td></td>
<td>View on human-nature relations</td>
</tr>
</tbody>
</table>

To say something about each non-numerical value the central discourse components assume would result in a discussion far too long for this essay. Therefore, I must to a large extent leave the values uncommented. Keeping in mind the depictions outlined above, they should however be rather straightforward.

With Table 2.1 I have created two things. First, it summarizes the discussion held so far since it effectively characterizes the three discourses of ecological modernization, green governmentality and civic environmentalism. Second, it serves as a bridge between theory and analysis since it also can be thought of as an analytical tool that can serve as a guide for empirical analysis. In the following chapter I will develop my methodological strategy further.
3 Methodological approach

In Table 2.1 I have summarized the three discourses occupying the discursive space of environmental politics by defining six central discourse components and how each and every discourse relate to these components. One essential feature of this approach to summarize the contents of this space is the premise that all discourses actually have a relation to the central discourse components – i.e. that all discourses have a view on the nation-state, on capitalism, on civil society, etc.26 Therefore, if resilience theory is a potential environmental discourse in the making and if this premise is valid, it too must prove to have these qualities. And if the components I have outlined above define the essential features of environmental discourses they must also define the essential features of resilience theory as an environmental discourse.

To understand resilience theory as an environmental discourse and to understand the practical politics it might induce, one should therefore outline how resilience theory relates to these components. Thus, outlining what view resilience theory has on the nation-state, on capitalism, on civil society, on social order, on knowledge and on human-nature relations is the main task for my empirical analysis.

By this explorative approach one accomplishes two things. First, the foundations of resilience theory as an environmental discourse are defined and this depiction serves as the basis for understanding what practical politics it can generate.27 Second, it enables interdiscursive comparisons. This means that the summary of resilience theory serves as a basis for comparisons between it and already existing discourses. Therefore this methodological approach can generate answers to both parts of the operational question informing this essay.

3.1 Textual analysis and the study of ideas

Practically all studies of discourses and ideas are in some way related to written texts, and my research makes no exception. Discourses often manifest themselves in written texts and if one wants to study the contents of a discourse one should turn to written texts. Since resilience theory is predominantly a scientific theory it is in scientific texts it is manifested and its potential as an environmental discourse produced. Therefore, the empirical research I am carrying out here is comprised of textual analysis of scientific texts.

To study texts is to interpret texts. Therefore, it is necessary to say a few words on strategies of interpretation before moving on to a more detailed discussion on the methodological strategies informing this research. There are a number of different ways to
interpret a text, and since they all in some way are related to the individual researcher – which raises questions of intersubjectivity – one should define ones own strategy of interpretation explicitly. In this essay I approach texts on resilience theory not as reports on scientific findings or attempts to develop academic theory but as texts displaying certain ideas and perceptions of reality and thus, in extension, as a foundation of a potential environmental discourse. I want to understand them in a context of a sociological framework of discourse analysis and how the ideas they display can be understood in relation to already existing ideas on environmental politics. Therefore, I am not interested in the primary purpose the authors had with their texts. Nor am I interested in how these texts might have been received by their primary audience – the scientific community. The purpose of my interpretation strategy is rather to outline the underlying and general sociological ideas of resilience theory. On a more practical level, I try to keep my interpretations as “close” to the original texts as possible. With this I mean that I will try not to make too far-reaching conclusions based on the material. I will also try to provide as many explicit references to the texts as possible; hopefully this will enhance the transparency and intersubjectivity of my research.

3.2 Material
When doing empirical research, sampling is always a critical aspect of the analysis. The research I am carrying out here is all about trying to capture the sociological foundations of resilience theory and therefore the sampling strategy should concentrate on the manifestations of these foundations.

Since the study of a discourse per definition is a qualitative endeavor, the sampling strategy informing the analysis cannot be based on theories of randomized sampling techniques. Instead, one needs to sample the empirical material strategically.

For the purpose of my research, a useful source for sampling guidance is provided by Janssen et al. (2006) in which the authors perform a bibliometric analysis of the production of academic texts on resilience theory. In this article, the authors show, among other things, which journal articles and books on resilience theory are cited most frequently, which scientists are most productive – in terms of numbers of publications – and which scientists collaborate with each other (Ibid.). The results presented in Jansson et al. are rather unambiguous: Resilience theory is primarily developed by scientists active in the research organization called The Resilience Alliance (Ibid: 246) and the most prominent scientists active in the field are C.S. Holling, Fikret Berkes and Carl Folke. Hence, for a sample with high empirical validity, it is within the Resilience Alliance collaboration one should look for
material on resilience theory, and more precisely should the sampling strategy focus on the three authors mentioned above.

The Resilience Alliance, Holling, Folke and Berkes are however only guidelines for my collection of empirical material. To specify my sampling strategy even further I have put forward the following two criteria: a) The texts should present the latest and most updated version of resilience theory. Since I approach resilience theory in an evolutionary fashion – as a potential discourse in the making – it is essential to study the present version of the theory. This criterion means that the seminal work done by Holling in the 1970’s and 1980’s (see e.g. Holling 1973; Holling 1986) and an often cited volume edited by Berkes and Folke (1998) are rejected due to age. b) The texts should focus not only on the natural scientific aspects of resilience theory, but also on its sociological and political aspects. This criterion is perhaps obvious, but necessary since many texts on resilience theory focus on the natural scientific and mathematical aspects of the theory.30

Guided by these criteria, I have gathered a sample that consists of five texts. Approximately, the texts add up to a total number of 36,000 words.

The five texts I have decided to include in my sample are the following: Lebel et al. (2006), Folke (2006), Walker & Salt (2006: ch. 6), Folke et al. (2005) and Folke et al. 2002: ch. 4 and 5). Lebel et al. (2006) is an article published in a special issue of the journal Ecology and Society that is published by The Resilience Alliance.31 Based on a resilience theoretical framework, this text outlines some hypotheses concerning governance and resilience – a topic crucial for my research. Folke (2006) is an article published in a special issue on resilience, vulnerability and adaptation of the journal Global Environmental Change.32 The qualities of this text lie in its character as a coherent introduction to resilience theory, its historical development as an academic theory and its recent theoretical advances. The third text, Walker and Salt (2006: ch. 6) is a chapter in a book published in collaboration with The Resilience Alliance. This book is written in a more popular, nontechnical and accessible way as compared to other texts produced by scientists. I have chosen chapter 6 of the book since it summarizes the arguments presented in the book and outlines an almost rhetorical vision of the possible outcomes of resilience theory. The fourth text, Folke et al. (2005) is a review article on the social scientific aspects of resilience theory. It summarizes many of the ideas developed in the field of resilience theory with focus on its political implications, which is a major strength with the text. Lastly, I have chosen to include Folke et al. (2002) in my sample. This publication is a scientific background paper published on behalf of The Environmental Advisory Council to the Swedish Government. This text is of major importance since it presents concrete policy implications deduced from a resilience theoretical
framework. For now, this is the closest to a manifestation of resilience theory as an environmental discourse one comes. Since it is precisely this – resilience theory’s step from scientific theory to practical politics – I am interested in, this text provides a very important and useful source. However, it is a rather long text and to reduce my sample size I have decided only to include chapters 4 and 5 of it in my sample.

In the preparatory work for this essay I have read a rather great number of texts on resilience theory and I believe I have a rather comprehensive picture of what goes on in the field of the theory. Therefore, I consider the texts I have included in my sample as representative for the parts of the theory that is of interest here. It should also be noted that, when it comes to conceptual contents, the texts I have chosen do not diverge to any great extent from other texts I have reviewed.

The attentive reader might have noticed that Carl Folke appears as an author in four out of five of my sampled text and objections might be raised against this since it questions the variation in the sample. However, in my opinion Folke is a pivotal source when it comes to the ideas of resilience theory, and Janssen et al. (2006: 246) identify him as the most central node in the scholarly network developing the theory. Therefore, I believe this Folkean focus should not be viewed as a weakness or methodological bias, but as an indication of sample validity.

Given the limited space available in this essay, I believe it is difficult to satisfactorily and transparently present my empirical data. Including extensive quotations from the written texts requires space not available here. Therefore, I have decided to keep the numbers of quotations at a minimum and instead provide very extensive references to the primary sources.33

With the outlining of my sampling technique and my empirical material above, I end this chapter and move forward to my empirical analysis. In the following chapter I will present the results from this analysis, and I will try to define how resilience theory relates to the six central discourse components I have conceptualized above.
4 Analysis

In this chapter I present the results of my empirical analysis of texts on resilience theory and try to outline how resilience theory can be characterized as an environmental discourse. The chapter will be centered on the six central discourse components I have created as analytical categories for my research and I will devote one section of the chapter to each and every one of these components. In each section I will also discuss resilience theory in relation to the already existing discourses based on their view on the specific component. The aggregate results of this will hopefully be a picture of resilience theory as an environmental discourse, and this picture will be the basis for my overall arguments regarding the practical political outcome of resilience theory and how resilience theory is related to already existing environmental discourses. But before I engage in presenting my results I will devote a section to describe the foundations of resilience theory. As noted above, this description is not to be viewed as part of my empirical results, but as facilitating the comprehension of my arguments. Many of the political and sociological aspects of resilience theory are deduced from its theoretical foundation and to get a better apprehension of the presentation of my empirical analysis this description is necessary.

4.1 Resilience theory – the basics

As noted above, resilience denotes the ability of a system to absorb and manage changes and perturbations without changing into another qualitative state with other defining characteristics. Resilience theory is a human attempt to understand processes related to the concept of resilience. According to resilience theory, a more resilient system can manage more change, stress and perturbations than a less resilient system, without changing its main characteristics. Obviously, this has implications for notions of sustainable development. According to resilience theory, a sustainable development can be achieved by trying to maintain a system that produces desirable outcomes and by trying to change systems producing undesirable outcomes. Since these processes depend on system resilience it is to resilience we must turn to secure a sustainable development (Folke 2006; Walker & Salt 2006: ch. 1; Berkes et al. 2003b).

According to resilience theory, which has its theoretical roots in general systems theory and complexity theory, the world, both in social and physical aspects, ontologically takes the form of different complex social-ecological systems characterized by nonlinear dynamics. The general systems approach focuses on the interrelations between parts of a
system and argues that, to understand a system as a whole and its separate parts, an understanding of the different parts of the system and the interrelations between these parts is needed (Berkes et al. 2003b: 5). The complexity approach defines processes, in this case natural and social, as complex, hard to predict and as developing in a nonlinear fashion (Ibid.). Thus, uncertainty is always present in social-ecological systems. According to resilience theory, complex social ecological systems organize around one of several possible equilibrium states – social-ecological systems are not characterized by a single equilibrium to which processes tend to attract and when the system is put to stress and is exposed to change it does not respond in a linear and predictable fashion (Ibid). Change is inevitable in the world of resilience theory (Walker & Salt 2006: 9-10) and the ability to manage change – or put differently, creating resilience – is the key to manage social-ecological systems.

Resilience theorists often use the concept of *panarchy* to describe the development of social-ecological systems. This concept is central to understanding the conceptual foundation of resilience theory, but since this isn’t my primary interest here, I will only use it to outline resilience theory’s worldview. According to resilience theory social-ecological systems are hierarchically structured at different spatial and temporal scales (Holling 2001: 392) and systemic structures in these systems interact between scales (Walker et al. 2006b) Systems at high levels - e.g. climate or the nation-state system – develop and undergo change slowly while systems at lower levels – e.g. watersheds and local communities – change more rapidly and variables at all levels have possible causal effects on variables at other scales. Thus, different temporal and spatial scales are interrelated through these qualities of complex systems.

Complex social-ecological systems are also self-organizing and have adaptive properties. This means they, based on their levels of resilience, have the capacity to adapt to change. However, humans have the capability of intent and foresight (Walker et al. 2006b) which means that adaptability – the capacity to manage change (Ibid.) – in these systems to a great extent is determined by human action (Ibid). For a sustainable development we need to nurture resilience and to nurture resilience we must adapt to change. Human adaptation to environmental change is often referred to as adaptive management. However, adaptive management predominantly focuses on direct resource management, not politics. Therefore, the concept of adaptive governance has been developed to “expand the focus from adaptive management of ecosystems to address the broader social contexts that enable ecosystem-based management” (Folke et al. 2005: 444; see also Dietz et al.)

So, all in all, resilience theory can bee characterized as a theory trying to develop possible ways for sustainable development by constructing a theory focusing on change, how to
manage change and how to “expect the unexpected”. In the following sections I will discuss how this theory relates to the six central discourse components I have defined as important for all environmental discourses.

4.2 Component 6: Resilience theory and human-nature relations

The arguments concerning the relations between humans and nature is one of the most well developed themes in resilience theory, and many of the other arguments developed in the field are closely related to this theme. Therefore, I begin my presentation with this component.

According to the logics of complex adaptive systems theory, change and surprise in system behavior is an inherent property of such systems – stability is always temporary and control artificial. Humans cannot control their natural surroundings (Folke et al. 2002: 42, 52; Folke et al. 2005: 443, 445, 463; Walker & Salt 2006: 140, 141, 146, 149; Lebel et al. 2006: 1, 2). This notion is fundamental for resilience theory, and it stipulates that humans are a part of nature, rather than decoupled from it (Folke et al. 2002: 52). Therefore, resilience theory advocates a “human-in-the-environment” perspective (Folke 2006: 263), and a notion that humans are a part of nature and our possibility to control and steer it in a desired direction is, in the long run, impossible (Ibid: 254, 255; Folke et al. 2002: 52, 53; Folke et al. 2005: 443, 444). There is a tendency in texts on resilience theory to identify humans as subordinate to nature and to argue that processes in natural systems cannot be controlled by humans. An example of how this ontological perspective manifests itself is the way resilience theory uses the vocabulary of systems theory to argue for human adaptation to the environment: According to resilience theory, institutions seem to work effectively when their organizational scales are matched to ecological scales (Folke et al. 2005: 449). To secure a sustainable future, mankind must conform to the rules dictated by nature.

However, humans have also the possibility to change nature (Folke 2006: 253; Folke et al. 2002: 44; Folke et al. 2005: 443, 463; Walker & Salt 2006: 144). But these changes are often negative, since “shifts between states in ecosystems are increasingly a consequence of human actions that cause erosion of resilience” (Folke 2006: 257).

All in all, resilience theory has an ambiguous view on human-nature relations. According to its systems theoretical foundation, nature changes in an unpredictable fashion. At the same time, resilience theory contradictorily argues that humans to some extent are able to manage such changes. This contradiction makes it hard to outline its view on human-nature relations. It most often emphasizes that control of nature is impossible and that humans must adapt to the “changing nature of nature”. But at the same time, it also argues that humans change nature and can adapt to it in a way that strengthens resilience and therefore creates
opportunities for sustainable development. However, based on my research I argue that there is preponderance in resilience theory to emphasize the human inability to control nature in a stable fashion and the need for humans to adapt to the conditions of nature.

In this respect resilience theory clearly departs from both ecological modernization and green governmentality. Resilience theory dismisses ecological modernization’s rhetoric about how a focus on production, with its tendency to maximize yields and efficiency, and how humans can exploit natural resources in a sustainable manner can generate a sustainable development (Folke 2006: 254; Folke et al. 2002: 41; Folke et al. 2005: 444; Walker & Salt 2006: 140, 141). Perhaps even stronger, is its refutation of green governmentality and its emphasizing of political control and scientific mastery over nature (Folke 2002: 42, 52; Folke et al. 2005: 445, 463; Walker & Salt 2006: 141; Lebel et al. 2006: 1, 2). However, resilience theory does show some resemblance with the civic environmentalism discourse here, since they both argue that humans must adhere to the prerequisites of nature.

4.3 Component 5: Resilience theory and the view on knowledge
How resilience theory views knowledge is also one of the most well developed themes within the theory, and it is a rather coherent theme without major contradictions. According to resilience theory, local knowledge is important for resource management, and to strengthen resilience in social-ecological systems humans must incorporate such knowledge in the management of resources. (Folke 2006: 262, 263; Folke et al. 2002: 46, 52, 54; Folke et al. 2005: 452, 463; Lebel et al. 2006: 4, 9). Knowledge is often generated via a process of “learning-by-doing” (Folke et al. 2002: 46), and by integrating different knowledge systems management of natural resources can proceed in a fashion that strengthens resilience.

According to resilience theory, knowledge has a cultural base (Ibid; Folke et al. 2005: 446, 448). Knowledge, therefore, is culturally relative and contingent. However, resilience theory does not reject scientific knowledge. What it does reject is science’s claim of detachment and objectivity (Ibid: 445). Science plays an important role, both for resource management and for development of policies, but it is not the only existing legitimate knowledge system. Instead, local knowledge systems and science complement each other (Folke et al. 2002: 46; Folke et al. 2005: 446, 448).

This line of arguments is rather clear-cut in texts on resilience theory, and free from major ambiguities. But does it separate resilience theory from already existing environmental discourses? As noted above, ecological modernization does not actually have a comprehensive view on knowledge. However, it emphasizes the need for technical innovations for securing sustainable development. Resilience theory does not reject this
argument. However, resilience theory states that to realize such “sustainable technological innovation” we must turn both to scientific knowledge and local knowledge systems. So there is a slight difference between ecological modernization and resilience theory here. Between technocratic green governmentality, with its strong focus on scientific knowledge, and resilience theory there are obvious differences here. The same goes for reflexive green governmentality. Although this version admits that knowledge has a cultural basis, it still argues that science and scientific experts, not local users and local knowledge, should guide environmental management and technological development. However, resilience theory again resembles civic environmentalism since they both have a relativist view on knowledge and acknowledge the need for local knowledge to complement scientific knowledge.

4.4 Component 3: Resilience theory and civil society
The view on civil society within resilience theory is rather well-developed and it follows, almost deductively, from the view on human-nature relations and the view on knowledge inherent in the theory. If local culturally specific knowledge is essential for building resilience, local groups and actors should be included in resource management and societal governance (Folke et al. 2002: 46, 49, 52; Folke et al. 2005: 445, 448, 462). Therefore, resilience theory very explicitly emphasizes the need for participation from a variety of actors. Many of these actors, with my definition of civil society in mind, fall under the category of civil society (Folke 2006: 262; Folke et al. 2002: 47, 48-49, 54; Folke et al. 2005: 448, 449, 459, 463; Lebel et al. 2006: 5, 7, 11, 13, 14). However, it is important to note the difference between decentralization of governmental structures – a tendency not categorized as per se increasing the importance of civil society – and civil societal participation in politics. Among the arguments found in texts on resilience theory about the inclusion of different actors from civil society, one find arguments about e.g. the important roles played by NGOs in general (Lebel et al. 2006: 13; Folke et al. 2005: 461, 463) and as bridging operations (Ibid: 461) and organizational structures referred to as “tribal organizations” or “tribal institutions” (Lebel et al. 2006: 11).

The inclusionary logic concerning the importance of civil society contains a distinct feature of deliberation and how deliberation is presumed to increase the quality of political processes and their outcome. Therefore, resilience theory often points out the importance of deliberation and how local actors and civil society enhances the deliberative qualities of politics and policy formulations (Ibid: 5, 7, 14; Folke et al. 2005: 450).

Participation of local groups and deliberation highlights the importance of social networks. According to resilience theory, networks are the manifest form of a thriving local community.

Why then are networks of such importance? The answer lies in the trust-generating qualities inherent in networks. Social capital, and the related concept of interpersonal trust, thrives in social networks. Thus, both social capital and trust generate resilience (Ibid: 261; Folke et al. 2005: 451, 462; Walker & Salt 2006: 147; Lebel et al. 2006: 8, 14).

Despite this apparent appraisal of local participation of a multiplicity of actors, one can discern a tension in resilience theory between the importance of horizontal trust-building and the need for vertical leadership. There is, namely, a tendency in texts on resilience to introduce arguments about the importance of personal leadership in general (Ibid: 8; Folke et al. 2005: 451, 456; Walker & Salt 2006: 147) and in social networks in particular (Ibid: 144; Folke et al. 2005: 451, 453, 455, 459). These arguments diminish the importance of social networks since they emphasize personal traits and vertical hierarchies rather than social life and horizontal participation.

So, what conclusions can be drawn about resilience theory and its relation to already existing environmental discourses concerning the view on civil society? Both weak ecological modernization and technocratic green governmentality utilizes a strong exclusionary logic – civil society is per se irrational since it is not a part of either formal political institutions or private corporations – with which they argue that civil society should not be included in politics. Reflexive ecological modernization and reflexive green governmentality admit a limited role of civil society, but they do not emphasize its leading role in resource management in the way resilience theory does. Again, civic environmentalism – with its inclusionary logic and arguments about the importance of civil societal participation in policy formulations – and resilience theory show rather clear and strong similarities.

4.5 Component 1: Resilience theory and the nation-state

According to resilience theory, an overall change is needed concerning the general design of political institutions and their internal relations (Folke 2006: 262). As it is structured today, and has been structured during the 20th century, the political institutional frameworks of the world tend to erode resilience and create a world vulnerable to change and crisis. In order to change this, and create opportunities for resilience generation, policy should focus on adaptive management and adaptive governance. (Ibid; Folke et al. 2002: 45, 53; Folke et al.
In texts on resilience theory, the call for adaptive management gets a manifest form as a call for multilevel governance. Multilevel governance enhances social resilience, which in turn enhances social-ecological resilience. Often, this demand for multilevel governance is put forward in a general and sweeping manner (see Ibid; 448, 449, 457; Folke 2006: 262; Folke et al. 2002: 49, 52). Different levels and centers in such governance arrangement need to be separated and interconnected through sharing of power and responsibility (Folke et al. 2005: 463) and between these levels and centers bridging organizations – as channels for interaction and communication – are important (Ibid: 460-462). The demand for multilevel governance is also put forward using the vocabulary and arguments from systems theory (Ibid: 461, 463; Walker & Salt 2006: 145). A general characteristic of the multilevel governance structures resilience theory advocates is “institutional redundancy” – overlapping institutions with overlapping functions and responsibilities creating a “thick” polycentric institutional framework (Ibid: 148; Folke et al. 2005: 453; Lebel et al. 2006: 9-10).

The concept of multilevel governance and the demand for such governance arrangements does not however define resilience theory’s view on the nation-state, except for the rather non-original argument that politics need more levels and centers of authority than the nation-state. However, resilience theory actually lacks a comprehensive and well-developed view on the nation-state. The issue is seldom dealt with explicitly in the texts analyzed here. All they deliver is disparate hypotheses about what the nation-state should and should not do. This means that they display fractions of a theory, rather than a coherent whole.

According to resilience theory, the most important goal for politics is to strengthen social-ecological resilience, and policy formulations should reflect this (Folke 2002: 53). The nation-state should function as a provider of resilience strengthening possibilities rather than a proactive force aiming at all-encompassing control. This implies a rather limited role for the nation-state. Although proponents of resilience theory identify political leadership as important (Folke et al. 2005: 455, 456), and argue that legislation still should be carried out by governmental institutions (Ibid: 463), they also argue that “management of ecosystem and landscapes is complex to apprehend and implement and, therefore, cannot easily be subject to planning and control by a central organization, such as a national government” (Ibid.). Further, according to resilience theory rigid governance systems are outdated (Folke et al. 2002: 47), centralized institutions inhibit our possibilities to manage the ever-changing environment (Ibid.) and bureaucracies stifle abilities for innovate and flexible solutions to environmental problems (Folke et al. 2005: 450). Top-down governance structures are inefficient (Walker & Salt 2006: 148), and since harmonization of organizational structures
and policy programs is sub-optimal (Lebel et al. 2006: 9), governance structures should focus more on flexibility and innovative solutions. Resilience theory also often stresses the importance of political accountability (Ibid: 11, 14). Since local participation is essential for sustainable development, many governmental functions should be decentralized. However, such decentralization should be accompanied with corresponding decentralization of accountability (Ibid: 13). It is also important to note that resilience theory does not advocate the abolition or a general restructuring of the nation-state system (Folke et al. 2005: 450).

Overall, I interpret resilience theory’s view on the nation-state accordingly: The role for the nation-state in political governance should be limited. It should be a part of a thick multilevel governance structure in which some specific functions are still carried out by the nation-state. However, most functions should be taken care of at other levels, predominantly lower, but also to some extent higher.

The theory of the nation-state in resilience theory is not very well developed compared to its conceptions of local knowledge and participation. The vocabulary put forward by resilience theory actually result in a view on the organizational structure of politics as mirroring the ontological structure of the environment as interconnected systems. This is evident, for example, in its emphasis on the need for higher and lower governance levels with the nation-state somewhere in between, its arguments about how systems at different levels interact through bridging organizations and its arguments that all levels should be responsible for some specific functions related to environmental issues.

Again, resilience theory diverges greatly from green governmentality. Although political steering is important for resilience theory, it does not emphasize it as much as green governmentality does. Resilience theory also diverges from weak ecological modernization in this respect since resilience theory, despite its lack of theoretical rigor when it comes to the conception of the nation-state, emphasizes its importance more than weak ecological modernization does. Nor does resilience theory have much in common with radical civic environmentalism since the latter demands a restructuring of the nation-state system. However, resilience theory does resemble both strong ecological modernization and participatory multilateralism since they all characterize nation-states as important, but only as a part of wider systems of multilevel governance.

4.6 Component 2: Resilience theory and capitalism
The view on capitalism in the texts on resilience theory I have analyzed is by far the least developed of the six central discourse components. No text devote much attention to it and again, they display fractions of a theory, rather than a coherent whole. Resilience theory does
not have a theory of production and commodity exchange – it only discusses the historical and contemporary forms of capitalism, not its logic.

Historically, capitalist production have, according to resilience theory, eroded resilience (Ibid: 464; Walker & Salt 2006: 143, 146-147, 148), and purely market-driven economies ignore many of the benefits society gets from nature (Ibid.). Capitalist production has a tendency to attempt to control resource management, stabilize and maintain existing production patterns and to seek efficiency. According to the logic of nonlinear change advocated by resilience theory, this tendency is, by deduction, eroding resilience and therefore problematic (Folke et al. 2002: 41, 42, Walker and Salt 2006: 140, 141, 142, 150). Similar critique is also valid for capitalism’s propensity to focus on short-term profits and general short-sightedness (Ibid: 149; Folke et al. 2002: 41) and its tendency to simplify landscapes and reduce ecological variability (Ibid: 42, 53; Walker & Salt 2006: 140, 143, 145, 149).

According to resilience theory, the economy can serve as a source for resilience generation by focusing on development of ecosystem friendly technology. But this can only be realized through some political control over the economy (Ibid: 148; Folke et al. 2002: 52, 53; Folke et al. 2005: 464).

All in all, resilience theory seems to have a critical view on how capitalism historically has eroded resilience. But this critique does not end up in a general critique of capitalism as a system of production, and resilience theory does not call for a structural reformation of the way the economy works and how humanity produce and exchange commodities.

When it comes to the view on capitalism, resilience theory does not show much resemblance with any of the three existing environmental discourses. Capitalism is not a key actor – the view of ecological modernization – nor is it a part of the overall governmentality strategies that shapes social life – the view of green governmentality. Although resilience theory blames capitalist production for many environmental problems, it does not call for the abolition of capitalism – the view of radical civic environmentalism. If any, resilience theory seems to be closest to the view inherent in the discourse of participatory multilateralism with its reformist arguments about popular control of both political and economic actors.

4.7 Component 4: Resilience theory and political order

Although resilience theory often applies the vocabulary of systems theory and talks about interactions between scales (Ibid: 463) and “messy” governance structures that can override the top-down/bottom-up dichotomy (Walker & Salt 2006: 148), I argue that resilience theory advocates a weak bottom-up perspective on political order. Resilience theory, as shown above, puts great emphasis on local participation and local knowledge and argues that
political power to a great extent can be decentralized. This implies a bottom-up perspective. Its focus on networks (Ibid: 147; Folke 2006: 262, 263; Folke et al. 2005: 444, 448, 451) and community based approaches to environmental problem solving and resource management support and reinforce this argument. Resilience theory also focuses on bottom-up formations more generally, which is evident in my material (see e.g. Ibid: 448, 449, 452, Folke et al. 2002: 47, 49; Lebel et al. 2006: 7, 11). Furthermore, there are also explicit oppositions against top-down models in the texts I have analyzed (Folke et al. 2005: 449; Walker & Salt 2006: 148). However, resilience theory does not identify the upper levels of the political order as redundant (Folke et al. 2002: 49; Folke et al. 2005: 448, 449; Lebel et al. 2006: 14) – nation-states, regional and global organizations and institutions still have important functions in global multilevel governance. Based on these findings, keeping in mind the analysis of the previous central discourse components and the conclusions drawn above, I interpret resilience theory as advocating a weak bottom-up political order. This view resembles the view held by participatory multilateralism and diverges from the other environmental discourses I have identified.

4.8 Concluding remarks: Back to the summary

So, how should resilience theory as a potential environmental discourse in the making be characterized and summarized? Which view does it have on the six central discourse components I have defined as important for all environmental discourses? In Table 4.1 below, I summarize resilience theory on the basis of these central discourse components. This summary should be conceived of as the essence of my empirical analysis.

The results should be conceived of as tentative, and some of them are based on a rather fragile empirical material. This regards especially resilience theory’s view on the nation-state and on capitalism, since these are components not very well elaborated in the theory. I have categorized the view on the nation-state in resilience theory as “limited” by which I mean its role in wider systems of multilevel governance and its functional specificity. The view on capitalism in resilience theory is almost non-existent, but the few explicit fragments commenting it suggest that it is to be viewed as problematic, but via some political control and changed perspectives it can become a positive force for sustainable development. I would also like to mention that scholars engaged in resilience theoretical research might disagree with me on some points. Particularly, I have categorized the view on human-nature relations in resilience theory as “human adaptation” – a concept implying that nature rules and mankind follows. Since resilience theory argues that the world consists of interrelated social-ecological systems in which mankind and its physical surroundings affect each other, some
might disagree with this conclusion. I admit that the theoretical foundations of resilience theory actually reflect this view to some extent but in general, the end results of resilience theory seems to imply that humans to a great extent must comply with the prerequisites of nature.

### Table 4.1 Resilience theory summarized by central discourse components

<table>
<thead>
<tr>
<th>Central discourse component</th>
<th>Resilience theory</th>
</tr>
</thead>
<tbody>
<tr>
<td>View on the nation-state</td>
<td>Limited</td>
</tr>
<tr>
<td><strong>Political actors</strong></td>
<td></td>
</tr>
<tr>
<td>View on capitalism</td>
<td>Root of some problems, can be improved</td>
</tr>
<tr>
<td>View on civil society</td>
<td>Key actor</td>
</tr>
<tr>
<td><strong>Normative perspective</strong></td>
<td></td>
</tr>
<tr>
<td>View on political order</td>
<td>Weak bottom up</td>
</tr>
<tr>
<td><strong>Ontological perspective</strong></td>
<td></td>
</tr>
<tr>
<td>View on knowledge</td>
<td>Relativist</td>
</tr>
<tr>
<td>View on human-nature relations</td>
<td>Human adaptation</td>
</tr>
</tbody>
</table>

The arguments concerning the three remaining central discourse components are easier to defend since they are well developed and unambiguous in resilience theory. Admitting the existence of multiple systems of knowledge implies a relativist view on knowledge. When resilience theory argues for the inclusion of local actors in political processes – a feature essential for generating resilience – it also argues that civil society is a key actor in environmental politics. Lastly, resilience theory’s emphasis on local problems and local actors combined with the limited view on the nation-state implies a weak bottom-up perspective on political order.

How then, is resilience theory as a potential environmental discourse in the making related to the three discourses of ecological modernization, green governmentality and civic environmentalism? Is it a potential discourse of its own; is it a potential nested discourse or a potential hybrid?

Let me start with the easy one: Resilience theory is not green governmentality. When green governmentality focuses on human domination and control over the environment, positive knowledge and state-centered strategies for maintaining the environment in a preferred condition, resilience theory basically focuses on the opposites, since it argues that
humans must adapt to natural conditions, we cannot predict how ecological systems might develop, trying to prevent change is futile and local actors rather than centralized authorities should be in charge of environmental concerns.

Resilience theory is not weak ecological modernization either. Weak ecological modernization identifies civil society as irrational, does not pay much attention to natural prerequisites – nature is only a hindrance for development if the economy does not manage to exploit it in a sustainable manner – and top-down political order. Second to technocratic green governmentality, this seems to be the discourse with the least in common with resilience theory.

Thirdly, resilience theory is not radical civic environmentalism. Although they both emphasize participation and the inclusion of civil society in political processes, radical civic environmentalism calls for a general structural reconfiguration of the global political and economic order. Resilience theory does not stipulate such radical proposals. At best, it is a reformist discourse.

Reflexive ecological modernization and resilience theory show some similarities since they both assign a limited role for the nation-state in multilevel governance systems and acknowledge the inclusion of civil society in political processes. However, they also show some significant differences, above all their view on human-nature relations and their view on capitalism. These differences are most likely of such magnitude that the two cannot be conceived of as actually being one and the same, or as nested.

But what about participatory multilateralism and resilience theory, are they related? By now, the attentive reader have probably noticed that I have assigned the same non-numerical value to four central discourse components and very similar values in the remaining two for resilience theory and participatory multilateralism. I have also argued that resilience theory seems to have the most in common with participatory multilateralism in my empirical analysis. Therefore, I argue that they are closely related. But are they the same? The most essential characteristic of resilience theory is its emphasis on inevitable change and its arguments that humans can adapt to such change in a sustainable manner. Participatory multilateralism does not rest upon this postulate and whether or not this is of such importance that they cannot be characterized as one and the same is a question hard to answer. However, their end result – their practical political outcomes and policy programs, potential as in the case of resilience theory or manifest as in the case of civic environmentalism – seems to show great similarities.
5 The politics of resilience

In this essay, I have studied resilience theory as a potential environmental discourse in the making. The aim of the essay has been to outline the potential political implications of resilience theory and what policy this might induce. The operational question informing my research has been concerned with how the political implications of resilience theory and the practical politics it might induce are related to the already existing environmental discourses of ecological modernization, green governmentality and civic environmentalism. I have created a summary for each of these discourses and categorized them both by subcategories and by six central discourse components. Empirically, I have outlined how resilience theory relates to these discourses and to the central discourse components.

In general, my research shows that resilience theory assigns a limited role for the nation-state, and a very important role for civil society and local actors in environmental politics. Its view on local actors and civil society is closely related to its relativist view on knowledge. Resilience theory views capitalism as a root of many environmental problems but with some political control this can be altered. Furthermore, resilience theory seems to advocate a weak bottom-up perspective on political order. Finally, resilience theory views human-nature relations as relations characterized by human adaptation to the prerequisites of nature.

In conclusion, all this imply that resilience theory as an environmental discourse will be a reformist discourse that advocates some political changes but at the same time legitimizes the prevailing structural characteristics of society. Resilience theory seems to share many features with a version of civic environmentalism called participatory multilateralism, since they both emphasize local participation, relativist conceptions of knowledge, and the need for a bottom-up political order and since they both characterize human-nature relations as relations of human adaptation. I have chosen not to argue whether or not resilience theory and participatory multilateralism is to be conceived of as one and the same. However, I do argue that their practical political outcomes are very similar. Therefore, I conclude that the potential practical political outcomes of resilience theory as a potential environmental discourse in the making to a great extent resembles the practical political outcomes of participatory multilateralism. This conclusion questions resilience theory's aim to present a new and unique perspective on environmental politics and sustainable development. However, this conclusion is tentative. The impact resilience theory actually will have on environmental politics will to a great extent depend on future theoretical development and the exchange between academic theorists and policy makers.
6 Endnotes

1 For some different definitions and for some critical reviews of the concept see e.g. Torgerson (1995); Sachs (1999); Luke (2005); Redclift (2005).
2 Here, it is worth mentioning the close relationship between the notion of sustainable development and the outlining of ecological modernization theory within sociology. See e.g. Huber (1998); Spaargaren (2000); York and Rosa (2003). I will return to the concept of ecological modernization below.
3 I further elaborate the concept of discursive space and define my usage of it in chapter 2.2.
4 This specification of the concept was originally developed by Carpenter et al. (2001).
5 These concepts are central to my discussion in this essay and to my empirical research, but I leave them undefined as for now. The purpose of this section is to define my research question, not my theoretical approach.
6 I would like to mention explicitly that I have no intentions of creating such a scale. I use the concept of a scale to show the different shades of gray existing in the world of politics and with it I attempt to reduce the tendency, which is very common when creating categories, to conceive of the world as either black or white.
7 For practical reasons, I will shorten this term to “environmental discourse” below.
8 Not only discourse analytical approaches merge action and language into one conceptual whole. As an example one can mention social theorist Jürgen Habermas who has, among other things, developed a theory of language as action. See, e.g., Habermas (1984). Habermas is also concerned with the concept of discourse (Habermas 1975) but he defines it in a somewhat different fashion than the Foucauldian definition I ascribe to. Therefore I will not discuss it here.
9 Hajer clearly represents this view when he states that the environmental conflict “is to be seen as a complex and continuous struggle over the definition and the meaning of the environmental problem itself” (Hajer 1995: 14-15).
10 There are of course exceptions to this. See for example Dobson (2000). See also Barry (1999: 3-5) and Carter (2001: 11-12, ch. 3) who talks of environmental ideologies as either “ecologism” or “green ideologies”.
11 There are however diverging opinions in the debate on this topic. See, for example, Langhelle (2000) for an argument stating that there are several reasons why the concepts of sustainable development and ecological modernization should not be fused together, but approached as two distinct concepts.
12 In a comment to Hajer's work, Christoff (1996: 497) argues that Hajer's use of the concept of ecological modernization is so general that the concept in this perspective perhaps is better regarded as a meta-discourse.
13 This argument might need a clarifying discussion. Bäckstrand and Lövbrand develop their categorization with the purpose to study the politics of climate change. However, I adopt this categorization in a study on environmental politics, i.e. in a field it was not developed to cover. It is important to notice the difference between environmental politics and politics on climate change. In my view, the later is a special case of the former. Politics on climate change is a narrower concept, nested under the wider concept of environmental politics. Since different discourses can exist at different levels one cannot presuppose the existence of exactly the same discourses in the discursive spaces of environmental politics and politics on climate change. Bäckstrand and Lövbrand offer a solution to this problem however, since they explicitly state that the three discourses they outline are not limited to the discursive space of politics on climate change, but are “meta-discourses of global environmental governance” (Bäckstrand & Lövbrand 2006: 51). So when I apply their theory to environmental politics I do not actually apply it to a setting it was not developed to cover, I only apply it to a setting where its validity has not been empirically tested.
14 For some general introductions to social theories approaching modernity, see e.g., Ritzer and Goodman (2003, ch. 16); Lyon (1999); Kumar (2005).
15 In the remainder of this essay, the term ecological modernization denotes ecological modernization as environmental discourse, not as sociological theory. In my discussion on ecological modernization I refer to authors who review ecological modernization as an environmental discourse. Thus, the referred authors are neither proponents of ecological modernization as an environmental discourse, nor as a sociological theory. My discussions on green governmentality and civic environmentalism also follow this pattern.
16 More or less every author in the field put forward this fundamental characteristic of ecological modernization. See e.g. Hajer (1995); Christoff (1996); Harvey (1999); Berger et al (2001) Bäckstrand and Lövbrand (2006).
17 Here, higher levels refer to regional or global inter-, trans- and supranational political institutions.
18 However, not lower levels. Gibbons (2000) has pointed out that ecological modernization to a great extent has ignored the subnational levels of politics.
19 See section 2.3 below for my definition of the concept of civil society.
20 Here, it is worth mentioning that ecological modernization is a key feature of the highly influential (Gustavsson 2004: 110) policy program often referred to as “the third way” developed by sociologist Anthony Giddens (see Giddens 1998: 54-64).
1. The original French word for governmentality is *gouvernementalité* – a neologism created by the words *gouverner* and *mentalité*. Their English counterparts are governing and mentality. See discussion in Gustavsson and Hörnqvist (2003: 58) and Kilhberg (2006: 55-56) for the meaning of these terms and controversies trying to translate them.

2. This theory is, despite its radical implications, rather easy to outline: Foucault subscribes to a constructivist conception of language and in situations where problems are socially constructed someone must define the problems at hand. This someone, since he/she/they have the ability to formulate authoritative statements about something, also has the power over others in the situation. The ones with knowledge also have power (see Foucault 1980).

3. Luke (1997: ch. 4) uses the term ”worldwatching” to describe, in general, the same set of phenomena. Elsewhere, reflecting the influence of Foucault, he refers to the regulatory regimes and political practices of green governmentality as an “eco-panopticon” (Luke 1995b: 76-80; see also Foucault 1991c).

4. Practically every author reviewing this discourse discusses these traits explicitly. See e.g. Abel and Stephan (2000); Dagger (2003); Reid and Taylor (2003); Agyeman and Angus (2003); John (1994); Shutkin (2000); Bäckstrand and Lövbrand (2006).

5. Both strategies are discussed by Bergström and Boréus (2000).

6. Even ecological modernization’s view on knowledge, which I have defined as ”none”, actually constitutes a relation between the discourse and the view on knowledge. In this case, none is basically synonymous with ”irrelevant”.

7. One should note that my discussion on practical political outcomes will not be any more specific than this. Summarizing resilience theory by the six central discourse components will provide a sufficiently detailed picture of resilience theory as a discourse to provide some notion of its potential practical political outcomes. As an example one can mention the view on knowledge and how it is related to practical politics. A positivist view on knowledge means that including local actors in policy processes to gain local experience and place specific knowledge will not be necessary. The opposite – a relativist view on knowledge - leads to an inclusion of local actors. The inclusion/exclusion of local actors in the policy process is a practical political outcome based on the view on knowledge. I could provide examples such as this for all central discourse components but since they would follow the same logic and reasoning they would only be reiterations.

8. For information on Resilience Alliance see their website (The Resilience Alliance 2007) or Folke (2006: 260).

9. According to Janssen *et al.* (2006), Holling is the most cited author within the field, followed by Folke. (Ibid: 244). However, Folke, followed by Holling, has published the most texts (Ibid.) on the subject. Although Berkes does not take third place in these leagues, I still mention him explicitly. This is because he is still one of the most productive and cited authors in the field and, most importantly, he has co-edited two highly important and often cited books (see Berkes & Folke 1998; Berkes *et al.* 2003) on resilience theory (Janssen 2006: 242).

10. See e.g. Ludwig *et al.* (1997).

11. For an introduction to the issue see Walker *et al.* (2006a).

12. For an introduction to the issue and a discussion in how these three concepts are related, see Vogel (2006) and Janssen and Ostrom (2006).

13. I will provide readers who are interested in the exact parts of the texts on which I base my conclusions with detailed information about this on demand.

14. Due to the inherent qualities of resilience theory I do not present the components in a numerical order. This is perhaps confusing but it simplifies the account of my results.

15. My account of resilience theory will be very basic. For more detailed introductions of resilience theory see e.g. Gunderson and Holling (2001), Berkes *et al.* (2003a) Berkes and Folke (1998) or Walker and Salt (2006).

16. Which outcomes that actually are desirable and undesirable are of course hard to define, but not a question that I will try to answer here.

17. For an introduction to general systems theory see Klir (2001). For an introduction to complexity theory see Waldrop (1992) or Lewin (1999), and for complexity theory in a social scientific context see Urry (2003).

18. The conflation of the concepts of social systems and ecological systems into a coherent whole is an important aspect of resilience theory (see e.g. Adger 2000; Westley *et al.* 2002). The relation between humans and their environment, although not in terms of systems theory, will be discussed in section 4.2 below.


20. The way systems change is in resilience theory referred to as the adaptive cycle (Gunderson & Holling 2001). However, I will leave this concept unexplored in this essay.

21. For a sociologically interesting application and critique of this approach see (Young *et al.* 2006)

22. For reviews of various definitions and applications of the concept of adaptation, see Smit and Wandel (2006) or Gallopín (2006).
7 References


