Implementing policy innovations

Resource dependence, struggle for discursive hegemony and institutional inertia in the Dutch river policy domain

Paper prepared for the ERSA Congress, Amsterdam, 23-27 August 2005

Session P2: Water and Spatial Planning

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Abstract
The implementation of policy innovations is often a troublesome undertaking. This paper aims to compare three theoretical frameworks that may contribute to our understanding of these implementation processes, and to assess their relative strengths and limitations. Policy Network Analysis, Discourse Analysis, and Historical Institutionalism draw our attention to the relevance of resource dependencies, conflicting discourses and path dependencies respectively. The largely complementary character of these frameworks will be illustrated with a policy innovation in Dutch water management: the development and implementation of the new Space for the River policy, which is aimed at creating more space for the Dutch main rivers. It will be shown, that new policy ideas shape new interdependencies, and hence new patterns of interaction. Within the newly developing governance practices, however, the development of shared perceptions and perspectives is hindered by a struggle for discursive hegemony between the water management discourse and the spatial planning discourse. Finally, the deeply routed river management institutions hinder the choice for a different institutional path, which is necessary for realising policy innovations.

Key-words
Discourse analysis, historical institutionalism, policy network analysis, river management.

1. Introduction

Converting good ideas into steady, reliable streams of public action is often troublesome (O'Toole 1997). Policy innovations often result in a significant 'implementation gap'. Three frameworks that contribute to our understanding of the difficulties involved in realising new policy ideas are Policy Network Analysis (PNA) (Hanf and O'Toole 1992; Marsh and Rhodes 1992; Marsh 1998), Discourse Analysis (DA) (Hajer 1995; Howarth 2000), and Historical Institutionalism (HI) (March and Olson 1989; North 1990). Although all three frameworks acknowledge the analytical importance of inter-organisational relationships for understanding policy implementation, each framework puts the emphasis on a different aspect of these relationships and therefore produces different hypotheses about policy implementation and implementation failure. Whereas PNA sheds light on the importance of resource dependencies for understanding the patterns of interaction between parties involved in policy implementation, DA points to the conflicting discourses within a policy domain, which may hinder the development of shared problem perceptions and perspectives. Finally, HI draws our attention to the path dependent development of institutions, and hence the relatively limited array of alternative courses of action, which parties playing the implementation game may choose from.

The central aim of this paper is to compare these different accounts of policy implementation, and to explore their relative strengths and limitations. We will do so by using these frameworks to analyse the implementation process of a policy innovation in Dutch water management, the 'Space for the River' policy. This case study entails the elaboration and implementation of a radical new policy concept. Space for the River aims at creating more space for the rivers in order to enlarge their discharge capacity. This is a big break with the history of Dutch water management, which is mainly characterised by 'fighting water' with dunes, dikes and other special flood defences. Because of this new policy, water managers have become increasingly dependent on the cooperation of other parties, mainly agencies responsible for spatial planning and land owners, and as a consequence new patterns of interaction have developed in the river policy domain. Moreover, contemporary water management is no longer dominated by a technocratic water management discourse. It will be shown that some practices observed may be interpreted as a struggle for discursive hegemony between a water management discourse and a spatial planning discourse. Besides new and complex interdependencies and a

competition between discursive structures, also the historically shaped and deeply rooted institutions in the river policy domain explain why for water managers implementing Space for the River is troublesome.

The case study is based on content analysis of policy documents, eight semi-structured interviews with key players in the Dutch Space for the River project, as well as participatory observations made by one of the authors in 2002 and 2003.[1] Space for the River is an ongoing process. In 2006 the national government will take a definite decision on the policy measures needed to enlarge the discharge capacity of the main rivers. By describing and analysing the implementation process for the Space for the River policy so far, we aim to compare the analytical power of PNA, DA, and HI, and to assess the merits of each framework.

In the following, we will first introduce the basic concepts and arguments of PNA, DA, and HI, and compare their accounts of policy implementation (Section 2). Next, in Section 3, we will shortly introduce the background, objectives, and organisation of the Space for the River project. The three interpretations of the implementation process presented thereafter are at the core of this paper. In Section 4 the main theoretical conclusions are given, and an agenda for further research will be presented.

2. Why implementing policy innovations is often troublesome

Policy Network Analysis

The concept of policy networks refers to the fact that "policy making and implementation involves a large number and wide variety of public and private actors from the different levels and functional areas of government and society" (Hanf and O'Toole 1992: 169). In general, policy networks are defined as "more or less stable patterns of social relations between interdependent actors, which take shape around policy problems and/or programmes" (Kickert, Klijn and Koppenjan 1997: 6). Central concepts of the network perspective are *actors* and *interdependence* (or mutual dependence).

[1] In these years, Sander Meijerink was employed at the Province of Overijssel and participated in the Space for the River project.

Usually, actors do not possess all the resources they need for solving the problems they perceive. Financial resources, formal decision making power or knowledge generally are distributed amongst a wide range of actors (Marsh and Rhodes 1992; Goverde and Van Tatenhove 2000). By employing different types of strategies, actors try to reduce or to manage their resource dependence on other actors. Policy making and implementation thus are the result of a *strategic* interaction process. Or, as Marsh (1998: 10) puts it: "networks reflect patterns of interaction and resource exchange between agents and it is those resource exchanges which determine outcomes".

Although the implementation of policy innovations in complex networks is highly complicated, during the interactions substantive, strategic, and institutional learning processes may develop, which contribute positively to the solution of collective action problems (Bueren *et al*. 2003). Substantive learning takes place if problem perceptions or perspectives are changed because of new available knowledge or because parties have learned from other parties' knowledge and insights. Strategic learning refers to learning about the interdependencies within a policy domain, about other parties' preferences, and, finally, about the effectiveness of network strategies used so far. Finally, institutional learning is about the development of new game rules to regulate interactions better, such as new arrangements for information exchange, monitoring or dispute settlement.

The distribution of resources and the resulting strategic interaction processes create serious problems for government's capacity for problem solving (Hanf and O'Toole 1992). Relatively independent actors have to work together in one way or another, while possessing different bits of information, representing different interests and pursuing different interests through separate, often conflicting courses of action (ibid.). At the same time, governments are increasingly facing problems of integration concerned with crossing sectoral boundaries as well as local, regional and national borders (ibid.). Therefore, part of the PNA-literature deals with the role of governments as 'network managers'. It is their task to manage and facilitate collective decision making processes aimed at consensus building or reaching negotiated agreement. In other words, they should enhance processes of substantive, strategic and institutional learning. A crucial aspect of this network management is the selection of parties to be involved in decision making. The number of different perceptions and preferences, and hence the complexity, increases with the number of participants. On the other hand, parties which have not been given

the opportunity to participate, but disagree with the outcome, may mobilise their resources to frustrate policy implementation.

Discourse Analysis

A second file of literature relevant to our understanding of the difficulties with implementing policy innovations is Discourse Analysis. DA emerged as an attempt to overcome the limitations of mainstream positivist approaches to social science, primarily by grounding itself on different ontological and epistemological foundations. "Discourse theory is concerned with understanding and interpreting socially produced meanings rather than searching for objective causal explanations" (Howarth 2000: 128). Following Foucault, Hajer (1995: 44) defines discourse as "a specific ensemble of ideas, concepts, and categorizations that are produced, reproduced, and transformed in a particular set of practices and through which meaning is given to physical and social realities". Discourses, that is, specific systems of meaning or discursive structures, constitute the identities and strategies of actors, as well as public access to the problem at hand and problem selection and perception. Hence, all objects and actions have a meaning, that is, "discourse theory embraces all social practices and relations" (Howarth 2000: 102). Reality is constantly discursively produced and reproduced. The notion of 'discursive practice' (e.g. Hajer 1995) is introduced to articulate the fact that discourse and practice are separate but intertwined - discourse reflects and produces practices.[2]

The construction of discourses always involves the exercise of power (Howarth 2000), i.e. every discursive structure is a social and political structure. In the words of Hajer (forthcoming: 4): "Language has the capacity to make politics, to create signs and symbols that can shift power-balances and that can impact on institutions and policy-making". As different systems of meaning make possible different forms of conduct, politics (or policy making and implementation) is conceived of as "a struggle for discursive hegemony in which actors try to secure support for their definition of reality" (Hajer 1995: 59). 'Discursive hegemony' is the domination of a particular societal domain, conceptualised as a discursive field, by a specific discursive structure. During this struggle for discursive hegemony, discourse-coalitions are formed among actors that

[2] This idea about the nature of discourse does not reduce everything to language or entail scepticism about the existence of a world external to thought (Howarth 2000: 9; Torfing 1999: 94). To illustrate this, Torfing (1999: 94) gives the following example: "a stone can be discursively constructed as a projectile or as an object of aesthetic contemplation, but it is still the same physical object".

might perceive their position and interest according to widely different discourses, but are attracted to a specific set of story-lines (ibid: 65). Story-lines are narratives about social reality or symbolic references, which are evoked through e.g. the use of metaphors. It is precisely the open and metaphoric nature of these story-lines that provides the basis for the formation of discourse-coalitions. Story-lines are the 'discursive cement' (ibid.) that keeps these coalitions together. However, while struggling for discursive hegemony, it may not always be possible to relate previously independent practices to one another (or to solve the clash between conflicting discursive structures), and hence restructure a particular discursive field.

Historical Institutionalism

A third relevant framework is Historical Institutionalism. Because they provide a structure to everyday life, 'institutions matter'. This is a well-known statement by North, the Nobel Prize winner for economics. North (1990: 3) defines institutions as the 'rules of the game' in society, "the humanly devised constraints that shape human interaction". Another classic definition is that of March and Olson (1989: 22), who define institutions as "the beliefs, paradigms, codes, cultures, and knowledge that support rules and routines". Institutions can be formal, such as laws, constitutions and ordinances, or informal, that is, 'ways of doing things', such as customs, traditions or social norms. Furthermore, institutions can be created, or simply evolve over time. What these definitions also show is the 'duality of structure' (Giddens 1984): structures are made by people and subsequently constrain *and* enable the behaviour of people. Institutions are the result of discursive and reflexive social construction.

However, 'history matters' as well. This is another statement of the economist North, referring to the inertia and robustness of institutions. Because institutions are shaped by history, that is, "embody historical trajectories and turning points" (Putnam 1993: 8), it is difficult to change them. Hence, institutional change is incremental or 'path dependent': what comes first conditions what comes later (ibid.) - well-established core patterns of institutional arrangements are usually not challenged. Although historical institutionalists emphasise the continuity and persistence of institutions, they also recognise that institutions can change radically. But only in exceptional cases of fundamental performance crises or external shocks (Knill and Lenschow 2001: 193). Sources of 'discontinuous institutional change' (North 1990: 89) are wars, revolutions, conquests and natural disasters. In general, however, institutional change is

'overwhelmingly incremental' (ibid.). Policy making and implementation thus are shaped by history.

Comparing the frameworks

Because of the different ontological and epistemological viewpoints and the rather different research traditions of PNA, DA and HI, one may easily be criticised for comparing apples with pears, if one attempts to compare the basic characteristics of these frameworks. Our main reason for doing so, however, is that each of these three frameworks clearly has something to say about policy implementation and sources of implementation failure, and therefore is relevant to our case analysis. Table 1 gives information on the main characteristics of each framework. Our comparison includes their (1) dominant research tradition (either positivist or social-constructivist) (2) position in the structure-agency debate, (3) basic conceptualisation of inter-organisational relations, (4) conceptualisation of power, (5) conceptualisation of learning processes, and finally (6) their main account of policy implementation failure.

The frameworks are embedded and developed in rather different research traditions. DA probably has the most extreme position here, as this framework is strongly rooted in the social-constructivist research tradition. HI, on the other hand, at least the economically oriented literature, has a rather positivist research approach. PNA could be positioned best somewhere in between. Although most PNA-literature discussed here concerns rather interpretative, social-constructivist research, there are also examples of very positivist, hypothetic-deductive network research.

Our second item for comparing the frameworks concerns their position in the structure-agency debate. Here, HI clearly has the most extreme position, because it stresses the importance of structures (institutions) for explaining policy and policy implementation. PNA (game rules) and DA (discursive structures) look at the structuring influence of institutions as well, but more than HI these two frameworks recognise the opportunities which parties have to create and manipulate institutions purposefully and strategically.

All frameworks emphasise the importance of inter-organisational relations for understanding policy processes. Their basic conceptualisations of these relationships, however, differ. Whereas PNA stresses the importance of resource dependencies for understanding relatively stable patterns of interaction, DA points to the coalitions which may be present within a

policy domain, and which are based on story-lines. In HI, the main argument is that historically shaped institutions structure interactions between the parties involved in policy implementation.

All frameworks underline the crucial role of power and power relations for understanding the policy process. PNA points to the fragmented distribution of power resources amongst the relevant actors, and argues that actors employ strategies to obtain the resources they need for realising their objectives. In DA, power relations are conceptualised as a struggle for discursive hegemony. Finally, HI argues that institutions (the rules of the game) shape power relations, and hence that power relations are shaped by history.

Besides the importance of power and power relations, all frameworks one way or another address the learning processes which may develop in a policy domain. PNA-literature distinguishes between processes of substantive, strategic and institutional learning, and DA draws our attention to the process of meaning making, which implies that meanings are dynamic. In HI, learning is mainly linked to clear performance crises or shock events.

To conclude our comparison, each framework produces different accounts of policy implementation *failure*. In PNA, policy failure is mainly attributed to the distribution of resources and/or poor performance of network managers, and hence the absence or lack of substantive, strategic and institutional learning processes. DA explains implementation failure by the co-existence of conflicting discursive structures, which hinders processes of shared meaning making. Finally, HI points to the institutional inertia in implementing policy innovations, which is caused by the path-dependent development of institutions.

	Policy Network Analysis	*Discourse Analysis*	*Historical Institutionalism*
Main research tradition	Mainly social-constructivist	Social-constructivist	Mainly positivist
Position in structure-agency debate	Dialectical relationship structure and agency	Dialectical relationship structure and agency	Structuralist
Inter-organisational relations	Relatively stable patterns of interaction which are shaped by resource dependencies	Story-lines are the binding element of coalitions	Rules of the game structure interactions
Role of power	Actors play games to obtain resources needed for reaching their objectives	Struggle for discursive hegemony	Power relations are largely shaped by history
Conceptualisation of learning processes	Substantive, strategic and institutional learning	Dynamic process of meaning making	Institutional learning, mainly linked to crises
Sources of policy implementation failure	Poor network management Absence or lack of inter-organisational learning	Conflicting discursive structures	Institutional inertia caused by path-dependencies

Table 1: Comparing three accounts of implementing policy innovations: Policy Network Analysis, Discourse Analysis and Historical Institutionalism

3. The Dutch Space for the River implementation process

In 1993 and 1995 (near) river floods raised societal awareness of flood protection issues in the Netherlands, as well as awareness among river experts of the limits to controlling high water levels with higher dikes only. To be able to cope with potential flood disasters in the future, that is, to anticipate impacts of climate change, sea level rise and increasing river discharges, Dutch policy makers now are changing their flood defence strategies. Whereas in the past they have always constructed and strengthened dikes, they nowadays try to elaborate and implement a new safety concept for the riverine areas, called 'space for the river' (Min. V&W 2000a, 2000b). The basic idea of this new safety concept is to enlarge the discharge capacity of the rivers by (temporarily and under specific circumstances) increasing the amount of space for the rivers (Wiering and Driessen 2001). The central objectives of the national Space for the River project are to develop and implement river-widening measures, which improve both the safety of the inhabitants and the spatial quality of the riverine areas at the same time (Min. V&W, Min. VROM and Min. LNV 2002). Replacing dikes, digging out old river branches or creating new ones (bypasses) are some possible measures.

For this project, the national government has formulated strict conditions beforehand. The present flood defence infrastructure is designed for a maximal Rhine river discharge of 15,000 m3/s, which corresponds with an estimated river flood frequency of once every 1,250 years. According to the new Space for the River policies, the Dutch Rhine river system should be able to accommodate a discharge of 16,000 m3/s in 2015 the latest, while in the long run (2050) it should even be able to accommodate 18,000 m3/s (without an increase of the estimated flood frequency of once every 1,250 years accepted now). In other words, short term river-widening measures (Space for the River project) should fit within the long term safety strategy. The budget for a policy programme that can accommodate a Rhine river discharge of 16,000 m3/s in 2015 is limited to Euro 1.9 billion.

The national government now faces the challenge to develop and implement a coherent plan for the Rhine river and its branches *Waal*, *Nederrijn-Lek* and *IJssel*. For this reason it was decided first of all to organise the Space for the River project according to the legally prescribed procedure for large scale infrastructure projects, the 'PKB-procedure'.[3] This procedure consists

[3] PKB = Planologische Kern Beslissing (Strategic Spatial decision).

of several stages: (1) an initiation stage, resulting in an inception report; (2) public consultation; (3) the drafting of a policy plan; (4) decision making by the Cabinet; (5) public consultation, and finally (6) the approval of the newly developed plan by Dutch Parliament. The PKB-procedure also comprises the preparation of a societal cost-benefit analysis, and of an Environmental Impact Assessment.

Subsequently, the three main Ministries involved in the Space for the River project - the Ministry of Transport, Public Works and Water Management (initiator), the Ministry of Housing, Spatial Planning and the Environment, and the Ministry of Agriculture, Nature and Food - decided to involve actively regional and local government agencies and NGOs in the initiation and policy preparation stage (stages 1-3 of the PKB-procedure). They asked the Dutch provinces, which have major competencies in the field of spatial planning, to issue a 'weighty' regional advice on a package of policy measures that meet the objectives set by the national government. In two Steering Groups, one for the Upper Rivers and one for the Lower Rivers, each chaired by a provincial Executive, the provinces tried to reach a negotiated agreement with municipalities and water boards on a policy programme, while consulting NGOs and inhabitants of the flood prone areas at the same time. At the beginning of 2005, the two Steering Groups jointly issued the regional advice. In spring 2005 the three Ministries and regions were debating this advice, as the plans proposed did not meet the strict conditions formulated by the national government beforehand - the proposed policy programme exceeds the financial budget of Euro 1.9 billion.

In the following, we will analyse the Space for the River implementation process in more detail. Using the frameworks introduced in Section 2, we will first present three different interpretations of this process. We will conclude this section with an assessment of the strengths and limitations of each interpretation.

Interpretation 1: New interdependencies in the river policy domain

Policy Network Analysis (PNA) draws our attention to the changing resource dependencies in the river policy domain, and hence to the changing patterns of interaction developing around these interdependencies. Because of the new substantive orientation of river policies, the national Ministry responsible for Water Management realised that, for the development and implementation of the Space for the River project, it has become increasingly dependent on the cooperation and competencies of other parties, such as spatial planners, NGOs and inhabitants of

the areas along the main rivers. Therefore, the Ministry decided to ask the provinces to organise an interactive policy process, and to issue a 'weighty' regional advice. This can be interpreted as a deliberate attempt to manage better the increasingly complex networks the Ministry is coping with today, and by that to increase chances for policy implementation.

In the Space for the River implementation process, four types of (resource) dependencies play a crucial role, and it is precisely because of these dependencies that implementing this policy innovation is a troublesome undertaking. The first important resource dependency is the division of formal decision making power. As the national government formulated strict conditions beforehand (16,000 m3/s, 2015 and Euro 1.9 billion), and the provinces were asked to prepare a regional *advice* that would meet these conditions, the national government has the ultimate decision making power. The choice to follow the procedure for large scale infrastructure projects implies that the Ministry wants to keep the formal decision making power. As a consequence, the strategic interactions in the Steering Groups for the Upper and the Lower Rivers take place within the 'shadow of hierarchy'. On the other hand, it should be realised that regional and local parties do possess many resources, such as competencies in the field of spatial planning, ample possibilities for litigation or access to the media, to frustrate implementation of policies they do not support. Therefore, in spite of the unequal division of formal decision making power, the national government remains largely dependent on the cooperation of other parties. Now the regional advice has been issued and the parties involved are discussing the further organisation of the Space for the River implementation process, the division of formal decision making power is being debated heavily. The provinces would like to have the lead, mainly because they have all the formal spatial planning competencies, which are needed for the actual implementation of river-widening measures. But so far, the Ministry of Transport, Public Works and Water Management prefers to keep the lead, as it feels responsible for realising the safety objectives. The Ministry is afraid that the provinces might attach more importance to issues of economic development or spatial quality than to safety. This is a nice illustration of parties trying to improve their position by strategically shaping new game rules.

The second resource dependency relevant to understanding the Space for the River implementation process is the distribution of financial means. The Ministry of Transport, Public Works and Water Management brings in by far most financial resources (Euro 1.9 billion) for implementing this policy innovation. The two other Ministries involved, as well as the regional

and local parties, hardly bring in any resources. It almost automatically follows that realising safety for the about 4 million inhabitants of the riverine areas is the first and most important objective of Space for the River. Less importance is attached, especially by the Ministry, to the improvement of the spatial quality of the river landscape, also because this is in most cases a very expensive operation. Regional and local parties, however, argue that the available financial resources are meant not only for realising safety, but also for improving the spatial quality of the riverine areas. Moreover, they do not accept that the financial budget is limited to Euro 1.9 billion, mainly because this budget is not based on any serious inventory of the costs which the creation of more space for the river entails. Unfortunately, the chances for increasing the Space for the River budget are relatively small. Due to the socio-economic situation in the Netherlands, budget cuts in all policy sectors are necessary. Only after the regional advice had been issued, did the national government ask regional and local parties to inventory possibilities for co-financing river-widening measures.

The distribution of expert knowledge is the third important resource dependency. Regional and local parties may have the most and the best knowledge about possibilities to combine different functions (i.e. about spatial planning issues), and about chances for creating public support for specific river-widening measures, they clearly lack the more technical knowledge about river safety issues. As a consequence, the Ministry of Transport, Public Works and Water Management and its knowledge institute for Inland Water Management (RIZA) participated in all forums where policy measures were discussed. The presence and knowledge advantage of the Ministry made some regional and local parties feel that the Ministry, rather than the provinces, is leading the regional debate (Meijerink 2004). On the other hand, actually to create space for the river, the Ministry has to acknowledge the 'weighty' status of the regional advice. Without the help of regional and local parties, it will be very difficult to implement 'their' policy innovation.

Finally, it is important to note that, typically for the water policy domain, the dependencies are within a river basin. Because of (cross-border) hydrological relationships, parties situated downstream are largely dependent on the strategies employed by the upstream parties. For this reason, in the European Water Framework Directive (EWFD) the notion of 'river basin management' has been introduced. The debate on the possible future Rhine river discharge, as well as the related debate on the construction of emergency flood polders, illustrate the impact

which these hydrological dependencies may have on water policy making and implementation. The basic idea behind these polders is that, in case the Rhine river discharge would exceed the norm discharges of 15,000 m3/s (current situation), 16,000 m3/s (in 2015) or 18,000 m3/s (>2050) respectively, a few sparsely populated polders (after their evacuation) will be purposefully flooded for the benefit of densely populated areas and/or cities downstream (Commissie Noodoverloopgebieden 2002). The regional planning agencies, most local governments and the affected parties have always strongly opposed the concept of emergency flood polders. They argue that the prediction of a possible future Rhine river discharge of 18,000 m3/s is unrealistic, because in that case immense river floods would occur in Germany, and, as a consequence, the Rhine water levels in the Netherlands would decrease considerably. In spite of lengthy joint international research projects on the possible future Rhine river discharge, the key-parties involved do not yet have a shared perception of the problem. At the beginning of 2005, the State Secretary of Transport, Public Works and Water Management therefore decided to postpone the creation of emergency flood polders.

To conclude, as new parties entered the Space for the River policy arena, new patterns of interaction developed. In 2003 and 2004, regional and local parties actively searched for possibilities to combine river-widening measures with other policy objectives, such as the enlargement of nature areas or the creation of possibilities for water recreation. Within the Steering Groups for the Upper and the Lower Rivers, and several related platforms, two distinct but interrelated processes took place. First, during the interactions, parties learned about the impact which various combinations of policy measures would have on the water levels in the main rivers. This substantive learning was supported by a Decision Support System, the 'Blokkendoos'. Secondly, the interactions entailed implicit and explicit negotiations. Parties tried to combine different and often conflicting perspectives, that is, they tried to develop multi-purpose plans acceptable to most of them. However, in spite of the rather innovative process design aimed at joint learning, and at creating administrative and societal support for an ambitious river policy programme, the real power of the regional parties should not be overemphasised. The Ministry of Transport, Public Works and Water Management still possesses at least three important sources of power: the ultimate decision making power, expert knowledge about river safety issues, and Euro 1.9 billion.

Interpretation 2: New and competing discourses in the river policy domain

In the previous section we have seen that (resource) dependencies in the river policy domain have changed, and that new parties have entered the river policy arenas. What also changed is that the traditional water management discourse is no longer dominating the discursive field around Space for the River. Discourse Analysis (DA) helps us see that, with the entrance of new parties, a new discursive structure also entered the policy arena, namely the spatial planning discourse. In other words, the policy innovation in Dutch river management, the 'space for the river' concept, entails a struggle for discursive hegemony. The water management discourse is competing now with the spatial planning discourse, as both want to dominate the way in which policy problems are named and framed, and hence are solved, i.e. which measures are chosen to create space for the river. In what follows, we will first describe shortly the central concepts and notions of both the water management discourse and the spatial planning discourse, after which we will illustrate, by means of three key dilemmas in the Space for the River implementation process, the confrontation between the two discursive structures.[4]

The core of the water management discourse is summarised in the statement: 'water as *the* ordering principle (of spatial planning)' (Commissie WB21 2000). Because without flood protection the Netherlands would only partly exist and certain land use functions would not be possible at all, according to most Dutch water managers (i.e. representatives of the Ministry of Transport, Public Works and Water Management, water boards and water departments of provinces), water should be the core element of spatial planning.[5] Water safety should always come first. It is only the way in which this safety is realised (i.e. the water safety strategy) that has recently undergone a radical change. Whereas for centuries dikes, dunes and other special flood defences have protected the Netherlands against flood disasters, in order to guarantee safety in the future it is necessary to create space for water, i.e. that people instead of 'fighting water' learn to 'live with water'. Because water safety should always come first, water managers feel that the Ministry of Transport, Public Works and Water Management (which possesses all the required expert knowledge on river safety issues) should be the only one responsible for realising

[4] The authors are of the opinion that the confrontation between the water management and spatial planning discourses is more relevant to understanding the implementation process than the often described transition from 'fighting the water' to 'living with the water'.

[5] A corollary of this view is the opinion that there is a need for separate elected governments for water management at the regional level, the so-called Water Boards. The crucial role of water management in the Netherlands would legitimise the existence of these organisations.

this safety. In line with this, for Dutch water managers Space for the River is a crucial project, as the only way of guaranteeing safety for the about 4 million inhabitants of the riverine areas is by increasing the discharge capacity of the main rivers.

Within the field of spatial planning, there is an increasing awareness of water management issues. In both the Fifth National Policy Document on Spatial Planning (Min. VROM 2001) and the National Spatial Strategy (Min. VROM 2004) is the importance of water safety acknowledged. The National Spatial Strategy even reserves space along the main rivers for river-widening measures to be taken in the future. However, as spatial planners are used to balance interests, for them water is *just one of the* ordering principles. It is one of the many claims on the scarce space. Other land use functions such as housing, agriculture, nature development and recreation are equally important. Hence, for spatial planners Space for the River is just one of the relevant developments, and, by developing multi-purpose plans, the main objective of this project has become the improvement of the spatial quality of the river landscape. Representatives of this spatial planning discourse generally are employees of the Ministry of Housing, Spatial Planning and the Environment, employees of the Ministry of Agriculture, Nature and Food and employees of spatial planning departments of provinces and municipalities.

The actual clash between the water management discourse and the spatial planning discourse is implicit in the space for the river concept. Whereas *space* refers to the entrance of the spatial planning discourse (spatial planners are responsible for land use management), *river* refers to the water management discourse (water managers are responsible for river management). Three key dilemmas in the Space for the River implementation process illustrate the clash between these two discursive structures. First, there is a permanent tension, partly caused by financial scarcity, between the objectives of safety and of spatial quality. For the Ministry responsible for Water Management, the most important objective of the Space for the River project is realising water safety for the about 4 million inhabitants of the areas along the main rivers. Consequently, the secondary objective is improving the spatial quality of the river landscape. The two other ministries involved, as well as the regional planning agencies, want to cooperate on the Space for the River project, but foremost to improve the spatial quality of the river landscape. They oppose the traditional technical measures, and generally are enthusiastic about the creation of bypasses and the replacement of dikes. Hence, the parties involved put a different emphasis on the main objectives of Space for the River. Whereas for water managers

improving the spatial quality clearly is a secondary objective, spatial planners emphasise more often the unique opportunity offered by the Space for the River project to improve the spatial quality of the river landscape, and consider both objectives as being equally important. As a result, developing and implementing a coherent and agreed upon plan for the Rhine river branches is rather difficult. Although the provinces and other regional and local parties are actively searching for possibilities to combine spatial river-widening measures with other policy objectives, strict safety standards along with limited financial resources make water managers sometimes choose for technical measures instead.

Governmental hierarchy versus interactive modes of governance is the second tension that hinders the Space for the River policy and implementation process. Whereas in the past the dominant management style in the Dutch water sector was expert-based hierarchical decision making, water managers nowadays try to democratise their policy processes. For this reason, the Ministry of Transport, Public Works and Water Management deliberately decided to ask the provinces to issue a 'weighty' regional advice. However, in spite of the interactive policy design chosen, existing regulations, such as the legal planning procedure for large scale infrastructure projects (the 'PKB-procedure'), seem to support a technocratic way of policy making more than interactive modes of governance (Deelstra *et al*. 2003; Nooteboom and Teisman 2003). One may question for example the value added of a legally required Cost-Benefit Analysis, which is part of the PKB-procedure. For the Ministry it has turned out to be difficult to hand over the responsibility for water safety to regional and local parties, even when they, after numerous discussion meetings and lengthy deliberations are able to present a policy programme that has considerable administrative, societal and public support, and that largely meets the objectives set by the national government.

Finally, in the Space for the River policy and implementation process, also the tension between long term and short term policy objectives illustrates the clash between the two discourses. Water managers, and the Ministry of Transport, Public Works and Water Management in particular, stick to the strict safety norms they formulated beforehand: in 2015, the Dutch main rivers should be able to accommodate a Rhine river discharge of 16,000 m3/s, while in the long run (2050) these rivers should be able to accommodate 18,000 m3/s. Regional and local planning agencies, on the other hand, propose a more flexible approach to these safety norms. First of all, with regard to the short term safety objective, the strict time schedule is

debated. Regional and local planning agencies argue that for some river sections it is acceptable if safety norms are reached not in 2015, but a few years later. They plead for a differentiation of the safety norms, also because in that case the parties involved would have more time to search for supplementary resources to finance spatial measures. With Euro 1.9 billion, the short term safety standards can only be met if 'cheap' policy measures are selected and implemented now. As raising and strengthening dikes is a relatively cheap policy measure in comparison with the more spatial river-widening measures, a strict maintenance of the safety objective for the short term inevitably implies a choice for traditional technical measures.

At the same time, the long term safety norm is being debated, as the parties involved do not agree what the future Rhine river discharge will be (see also the previous sub-section). At stake are the long term reservations of areas for river-widening measures to be taken in the future, that is, after 2015. As spatial planners want to be able to react on new circumstances, they do not like provisional (long term) reservations, for example for the creation of bypasses. In that case economic development in large areas would be blocked for a long period, while at the same time the national government is unable to guarantee that the planned bypass will ever be realised. The slogan of the regional and local planning agencies therefore is to 'do it good at once'. According to them, since we know the Rhine river discharge will be more than 16,000 m3/s in the future, we should better start with replacing dikes and creating bypasses right now. But again, this is not possible with the available financial resources. Moreover, according to the Ministry of Transport, Public Works and Water Management, these reservations are necessary only to prevent potential flood disasters in the future.

To conclude, the clash between the water management discourse and the spatial planning discourse hinders the Space for the River policy and implementation process. Both discursive structures want to dominate the discursive field around Space for the River. During this struggle for discursive hegemony, a discourse-coalition is formed. With the introduction of the Space for the River concept and project, Dutch water managers and spatial planners have come closer to each other, as they are attracted to the same story-line: 'space for the river'. However, the three key dilemmas between safety and spatial quality, governmental hierarchy and interactive modes of governance, and between short term and long term policy objectives, show that the attempt to relate previously independent practices to one another has not succeeded yet.

Interpretation 3: Deeply rooted river management institutions

The dilemmas described in the previous section show that the clash between the water management and spatial planning discourses is far from over. To understand better this struggle for discursive hegemony, and to understand why it turns out to be difficult to 'bury the hatchet', it is important to address the inertia and robustness of the existing institutions in the Dutch river policy domain. Historical Institutionalism (HI) makes us aware of the fact that these institutions are shaped by history. In what follows, it will be argued that cultural, structural and physical path dependencies hinder the implementation of the Space for the River policy innovation.

An important cultural path dependency is the Dutch water management culture. For centuries, in order to fight the water, water managers have designed high-tech solutions in an 'ivory tower' without consulting other public and private parties. They are used to tackle problems by means of technical engineering, based on a rational scientific methodology. Until recently, the national governmental agency *Rijkswaterstaat*, also called 'a state within the state', was a very hierarchical organisation, which can be explained partly by the water sector being dominated by an epistemic community of Delft civil engineers (Disco 2002; Koot and Dobbinga 2004; Meijerink 2005). Even today, despite several organisational transitions, the Dutch water sector is known for its strong 'esprit de corps' (Dicke 2001). It follows that the existing river management institutions are deeply rooted; they are shaped by the political modernisation project and influence the way in which water managers perceive water issues, and how they act accordingly. The water management culture and 'esprit de corps' have proven to be very successful in protecting the Dutch against sea and river floods in the past centuries. These cultural characteristics of the Dutch water sector, however, are not very suited for implementing policy innovations (Koot and Dobbinga 2004).

What makes it even more difficult to take a different institutional path is that the existing formal institutional arrangements reflect the Dutch water management culture. Illustrative for these more structural path dependencies in the Dutch river policy domain is first of all the existence of a distinct, relatively autonomous layer of public administration (Wiering and Immink forthcoming; Kuks 2004). The 200-years-old Directorate-General for Public Works and Water Management (*Rijkswaterstaat*) at the national level, together with the regionally operating water boards, is responsible for flood protection. Unlike in other European countries, the water policy field is not part of e.g. the Ministry of Housing, Spatial Planning and the Environment or

of the Ministry of Agriculture, Nature and Food. Instead, governing flood protection is the task of a distinct national governmental agency. Because of these separate water management organisations, and the numerous Acts and regulations which they have produced, the Dutch water management culture is very well institutionalised. A second example of structural path dependencies concerns the legally required procedure for large scale infrastructure projects, the 'PKB-procedure'. As mentioned before, this procedure supports classical hierarchical decision making aimed at a rational optimisation of policies more than new interactive modes of governance, such as the regional process leading to a weighty regional advice. Hence, the case study is an illustration of how existing institutions hinder more than support newly developing practices of interactive governance.

Besides cultural and structural path dependencies, there is a third relevant path dependency. Clearly, the implementation of the Space for the River policies is hindered by 'sunk capital', that is the investments which have been made in dikes, dams, dunes and other special flood defences, as well as the investments made on the newly or better protected lands. The argument here is twofold. First, as the physical infrastructure is already there ('sunk capital'), strengthening and raising dikes in most cases is relatively cheap as compared with the creation of space for the river. Moreover, these dikes have become a 'natural' part of the Dutch polder landscape. Secondly, because of the flood protection infrastructure, investments on the new or better protected grounds have increased. This makes it very difficult to give back land to the river system, which has been taken from it in the past centuries.

Despite these institutional path-dependencies, recent shock events, i.e. the near Rhine and Meuse river floods in 1993 and 1995, have paved the way for institutional changes and learning processes. The way in which the national governmental agency for water management, *Rijkswaterstaat*, organised the Space for the River project, illustrates the transition of the Dutch water management culture from a rather technocratic way of policy making to a more open and deliberative policy process. Some formal institutions are changing as well. For example, water managers are developing new methods for determining safety standards now (see e.g. the project 'Veiligheid Nederland in Kaart'). Whereas in the current approach, safety standards are based on flood frequency, which for the riverine areas should not be more than once every 1,250 years, the 'flood risk approach' also takes into account the potential damage (deaths and damages to real estate) which river floods may cause. It is generally expected that this new approach will replace

the ‘old’ safety standards in the Embankment Act in the near future. Finally, the draft governmental decision on the Space for the River policy programme, which was taken in April 2005, contains various proposals for creating more space for the river even though in the short run the measures proposed are more costly than strengthening the existing dikes. In sum, various developments seem to indicate a change in the institutional path which has been followed within the river policy domain in the past centuries.

Assessing the merits of each interpretation

The three theoretical frameworks central to this paper each produce a different account of the Dutch Space for the River implementation process. Whereas Policy Network Analysis (PNA) sheds light on the changing resource dependencies and the resulting attempts of the Ministry of Transport, Public Works and Water Management to manage the increasingly complex networks in the river policy domain, Discourse Analysis (DA) points to the struggle for discursive hegemony between the water management discourse and the spatial planning discourse. The last framework, Historical Institutionalism (HI), focuses on the path dependent development of river management institutions, and the limited array of alternative courses of action which the parties involved may choose from.

Now we have interpreted the Space for the River implementation process with the help of these three different theoretical frameworks, it is time to assess the relative strengths and limitations of each interpretation. To begin with, what makes the PNA interpretation powerful is its attention for the changing resource dependencies in the river policy domain. These new dependencies explain why there is an urgent need for cooperation between water management agencies, spatial planners, NGOs and the inhabitants of the riverine areas, if they all want to realise water safety for these inhabitants. With its focus on resource dependence, however, PNA underexposes the ideational dimension of the policy process. It fails to specify why it is so difficult to realise a consensus between the interdependent actors. Here, both DA and HI offer useful complementary insights.

Unlike PNA, DA pays attention to the naming and framing of the new river policies (i.e. to policy language), and to the formation of discourse-coalitions based on open concepts, metaphors or story-lines. The analysis of the Space for the River implementation process as a struggle for discursive hegemony between a water management and a spatial planning discourse

produces a useful account of the difficulties involved in developing shared perceptions of the problems and shared perspectives on the Dutch river landscape. With a focus on resource dependencies and processes of naming and framing respectively, PNA and DA are largely complementary, and together they offer a rather comprehensive account of policy implementation and implementation failure. Still, it has proven to be useful to include in our analysis an interpretation based on HI.

HI draws our attention to the historically shaped and deeply rooted institutions regulating the interactions between the parties involved in policy implementation. Cultural, structural and physical path dependencies explain the various institutional barriers to the implementation of innovations in the river policy domain. The technocratic Dutch water management culture, the way in which this culture is institutionalised, as well as the existing infrastructure for flood protection help to understand better why for water managers it is difficult to take a different institutional path, that is, to form a Space for the River discourse-coalition together with spatial planners. Our case study, however, also shows that parties have been able to change the institutional path which has been followed by water managers in the past centuries, at least incrementally.

4. Conclusion

The central aim of this paper was to compare three different accounts of policy implementation, and to explore their relative strengths and limitations. Policy Network Analysis (PNA), Discourse Analysis (DA) and Historical Institutionalism (HI) have all contributed to our understanding of the Space for the River implementation process. These frameworks shed light on the importance of resource dependencies, processes of naming and framing, and historically shaped institutions for understanding policy implementation. Foremost, these frameworks produce complementary insights into the implementation of policy innovations, which underlines the usefulness of multi-model analyses in policy studies. In spite of their largely complementary character, parts of these frameworks produce rival hypotheses about implementation. Although the analysis of the historically shaped institutions in the river policy domain enhances our understanding of the difficulties involved in policy implementation, our observations of new governance practices in

the river policy domain seem to corroborate the PNA and DA-assumption that actors do have possibilities to purposefully create and manipulate institutions, and by that to bring about institutional changes needed for implementing policy innovations. It is an interesting question for further research whether the observed change of institutional path should be attributed to the 'external shocks' of the near river floods in 1993 and 1995 solely, or whether HI underestimates the opportunities which parties have to purposefully and strategically create and change institutions. To answer this question, the inter-organisational analyses presented in this paper should be supplemented with a more detailed analysis of the dynamics of the frames and strategies employed by individuals participating in the implementation process.

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