CHAPTER 5: POLICY AND IMPLEMENTATION NETWORKS: MANAGING COMPLEX INTERACTIONS

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1. INTRODUCTION

The world of policy making and implementation seems to be full of networks. Indeed, empirical evidence indicates that governments across the world are looking for new forms of governance to cope with the network character of policy formation and implementation (Marin/Mayentz, 1991; Marsh/Rhodes, 1992; Kickert/Klijn/Koppenjan, 1997; Osborne, 2000; Marcussen/Torfing, 2006)

The growing trend toward partnerships and networks as vehicles to achieve policy outcomes and organise service delivery has been connected by many authors to the development of a ‘network society’. Interdependence and horizontal relations have grown in importance, partly as a consequence of information technologies. They are also the consequence of increased specialization (Castells, 2000). Indeed, it seems likely the policies of new public management, in which specific policy implementation tasks are outsourced or autonomized, have exacerbated this trend (Rhodes, 1997). Castells (2000) argues that our societies are increasingly formed in the bi-polar tension between the net and the self. If we look at his analysis, the development towards a network society has been a gradual progression which started somewhere in the 1970s, but which accelerated during the final decade of the twentieth century. The implicit assumption, if we accept this analysis, is that there is a growing need for inter-organizational structures between organizations to deal with the growing complexity of interactions in the public and private sphere (and at the interfaces between those spheres).

Other societal trends have been linked to these developments. Individualization, considered as one of the major societal developments in western society (eg Bauman, 2000; Beck and Beck-Gernsheim, 2001; Sociaal Cultureel Planbureau 2000) brings about a greater variety of values. It goes hand in hand with a diminishing of the importance of traditional societal relations (see also Putnam’s conclusions on the disappearance of social capital (Putnam 1995; 2000). The move towards a network society makes our society less governable, not only because resources are divided, but also because there is no undisputed set of values against which to judge policy proposals and outcomes.

Neither Castells, nor other commentators systematically explore what these changes in society mean for the role of government or, more particularly, processes of governance. There are however a few obvious effects which have been suggested by several authors. First, extended (international) networks will create conditions and pressures that are often beyond the reach of national governments. The tension between the ‘net and the self’ would lead both to a diminishing importance of classical binding mechanisms and groups (political parties, all kinds of intermediate, traditional organisation), and to the emergence of new more ad hoc (social) movements of citizens. We would also witness a more critical attitude towards public authorities and their policy proposals. Such scenarios have led policy practitioners and scholars to seek new forms of governance which connect citizens’ groups and societal actors to public policy, and thus create the necessary support that is failing as a consequence of the diminishing connections between citizens and traditional organisations (parties, societal organisations). Such strategies would also provide governmental actors with a means to acquire more information and knowledge from societal actors (for this complementary assumption against other assumptions: Klijn/Skelcher, 2007)

While these predictions remain very hard to prove, the growing number of (international) strategic alliances between firms (Faulkner 1995), the attention to chain management and networks of firms (Graeber 1993), the growing attention (at least rhetorical) to forms of co-
governance and Public Private Partnerships (Osborne 2000; Pollitt 2003) indicate that they should be taken seriously. This is evident from the struggles of both governments and firms to find new ways to cope with changing features of their environments.

**Networks as governance mechanism: the need for network management!**

In order to solve the complex policy problems governments face, it is necessary to involve various actors in policy-making and implementation processes. Private actors, social alignments, and citizens, have either important resources or the power to obstruct policy interventions. Therefore it is only through joint efforts and collaborative action that policy problems in a modern society can be solved.

The idea that the formation and implementation of policy or service delivery to citizens takes place in a network of organisations is certainly not novel. Early inter-organisational theorists like Levine and White (1961), Emerson (1962) and Litwak and Hylton (1962) stressed the interdependencies of organisations in realizing interesting outcomes. Mapping the interactions of organisations very soon became an accepted way to analyse policy processes and service delivery (Aldrich, 1979; Aldrich/Whetten, 1981). In political science authors like Dahl and others focused attention on the networks of elite actors that were involved in policy making (Dahl, 1961). This resulted in the famous debate between pluralists and elitists about how power was divided in policy making and society more generally. In Public Administration however these early theories had almost no impact at all.

The recognition of the fragmentation of power – authority, resource and control - was reflected in the late 70s, in one of the seminal contributions on network decision-making (Hanf and Scharpf, 1978). It has the telling title: ‘Inter-organisational policy making: Limits to coordination and central control’. Scharpf remarks at the end: “It is unlikely, if not impossible, that public policy of any significance could result from the choice process of any single unified actor. Policy formation and policy implementation are inevitably the result of interactions among a plurality of separate actors with separate interests, goals, and strategies” (Scharpf 1978: 346). According to Scharpf, research should not only be directed towards specific interactions between organizations and the strategic interactions that form policy and implementation, but also to the set of stable relations between organizations. Scharpf finds his theoretical inspiration not only in theories of dependency relations but also in public choice theory and theories of complex decision-making.

Two important observations can be made about the development of this line of thinking. First, although the concept network was known and used in organisational and political theories, it was not a very prominent concept in the 60s and 70s in general, and certainly not in Public Administration. One would not find any attention to it in the standard handbooks on public policy, or public administration at this time. It was not until the 80s that the concept grew in popularity when it was used to analyse policy-making processes and implementation processes. The second observation is that the recent literature on networks as a governance mechanism has paid explicit attention to the managerial question: how can we guide and steer these complex interaction processes. This question went largely unasked in the earlier political science literature. The recent attention to management or governance of complex networks has both empirical relevance (research is being done what management strategies do occur and what their effect is), as well as prescriptive relevance (what strategies should we use to be effective in governance networks).
Structure of this chapter

In this chapter an overview of the research using the network concept to analyse policy making and implementation is presented. In section 2 the three main research traditions that have used the network concept as a tool for analysing policy making and implementation are briefly discussed. The traditions are compared and it is shown that they have recently tended to converge. In section 3 the focus shifts to what the literature has to tell us about managing networks and the complex decision-making processes that take place within them. In section 5 the question of how to research networks of policy making and implementation is considered. Finally, the chapter is concluded with some observations about the future of this research tradition.

2. POLICY AND IMPLEMENTATION NETWORKS: AN OVERVIEW

The range of network types that have been studied from a network perspective is enormous and recently there seems to be a global explosion of research on policy and implementation networks. We can only present a brief overview of some main findings and trends using a classification of the research from a network perspective on policy formation and implementation.

Three types of networks compared

Although it may be the case that every classification is arbitrary, given the various research traditions and the history of the field, it is nevertheless possible to distinguish between three different types of research focusing on different types of networks. Each is rooted in a different theoretical tradition. The three research traditions concerning policy and implementation networks (Table 5.1) are:

- Research on policy networks; this is strongly based on a political science tradition which focuses on which actors participate in decisions in policy networks and which actors have power and access for decision-making. This research can be traced back to the famous discussions on power in the 60s and continued to be adopted in British research on policy communities and networks in the 80s and 90s.

- Research on inter-organisational service delivery and implementation of policy; this research starts more from an inter-organisational perspective and strongly focuses on networks as vehicles for service delivery and implementation. It is the coordination and creation of concrete products and outcomes which is central. It is not surprising that this research tradition also focuses more upon the construction of networks that can and do organise joint service delivery or policy implementation.

- Research on governance networks; this research corresponds more to the public administration tradition and strongly stresses the complexity of decision-making to achieve policy outcomes. It focuses more upon existing networks around policy initiatives and implementation. It is also concerned with the deliberation process between actors, such as the possible outcomes and value conflicts that are at stake when actors try to achieve workable solutions for policy problems. More than in the other two research traditions, the authors assume that governance processes in networks are a consequence of, and tied to, modern network society.
This chapter emphasises governance networks both because this literature is more recent and because other traditions are addressed in other chapters (see the chapter of Brint Milward on service partnerships (chapter 6), the chapter of David Knoke on political science perspective (chapter 19) and the chapter of Mike Geddes on local and regional partnerships (chapter 8).

5.1. Types of networks in empirical research and their characteristics

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<th>Policy networks</th>
<th>Service delivery and implementation</th>
<th>Governance networks</th>
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<tr>
<td>Main origin</td>
<td>Political science</td>
<td>Organisational science/interorganisation theory</td>
<td>Public administration</td>
</tr>
<tr>
<td>Focus</td>
<td>decision making and effects closure and power relations on issue and agenda setting</td>
<td>Inter-organisational coordination Effective policy/service delivery Integrated policy/services</td>
<td>solving societal problems managing horizontal governance relations connecting governance networks to traditional institutions deliberation processes</td>
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<tr>
<td>Main fields and research questions</td>
<td>Which actors are involved in decision-making How are the power relations and what are the effects on decision-making</td>
<td>How can complex integrated services be coordinated What mechanisms are effective and efficient (contracting, partnerships etc)</td>
<td>how to manage governance networks how to organise them and connect them to traditional institutions how to improve variety of content and combine various value judgements</td>
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<tr>
<td>History</td>
<td>Starts with the pluralist political science research of the 60s and continues through to research on subsystems, policy communities and policy networks</td>
<td>Starts with the first inter-organisational theorists that focus on inter-organisational coordination and continues through to research on service delivery (also through contracting) and implementation</td>
<td>Starts in the mid 70s with work on inter-governmental relations (Hanf/Scharpf, 1978) and continues with analyses of new governance forms and their effects and management requirements</td>
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The three traditions have been combined more and more over the course of time. While they originate from different sources and different research traditions, they seemed to have converged as researchers have freely adopted different elements from the different traditions.

Policy networks: policy making in tight coupled networks
Research on policy networks has a substantial history. It was built on a rich tradition of political science research which has focused upon the influence of interest groups on decision-making, the process of agenda building, the entrance of actors in that process (Cobb/Elder, 1983) and the opportunities (policy windows, see Kingdon, 1984) that occur in these processes.

Studies reported in this network literature over the last twenty years, reveal strong interactions between actors in specific policy domains. This generalization holds for studies which use quantitative techniques for mapping interactions (see Laumann and Knoke 1987 for one of the best examples) and for studies which use case studies to compare and analyse different networks (see Milward and Wamsley 1985; Rhodes 1988; Hufen and Ringeling 1990; Marin and Mayentz 1991; Marsh and Rhodes 1992; Marsh 1998).

For instance, after an intensive quantitative study of interactions between actors in national policy domains in the US, Laumann and Knoke (1987) concluded that these domains consist of a group of core participants made up of public as well as private actors. “Despite their lack of formal decision-making authority, many private participants possess sufficient political clout to secure that their interests will be taken into account. This mutual recognition creates and sustains the legitimacy of core actors and their involvement in domain issues and events.
Within the group of core participants, however, there exists a relatively dense system of knowledge on inter-organizational interaction”. (Laumann and Knoke 1987: 375).

Similar conclusions were reached by others including Rhodes in his analysis of British Government (1988), by various researchers in case studies compiled by Marsh and Rhodes (1992), in an analysis of decision making in the Netherlands (Koppenjan et al. 1987; Hufen and Ringeling 1990), and by several comparative analyses in other countries (Heisler, 1974; Richardson/Jordan, 1979). In their studies, the UK researchers focused attention on the characteristics of the networks (tight or not, etc) and the influence of this network on decision-making. Marsh and Rhodes found that the existence of policy networks have influenced policy outcomes (Marsh/Rhodes, 1992). Rhodes work suggested that various forms of network can be found (differing in cohesion, interaction density and shared views for instance). In several cases, close relations between actors led Rhodes and colleagues to speak of ‘policy communities’, that is “networks characterized by stability of relationships, continuity of a highly restrictive membership, vertical interdependence based on shared service delivery, responsibility and insulation from other networks and invariability from the general public (including parliament). They have a high degree of vertical interdependence and limited horizontal articulation. “They are highly integrated” (Rhodes 1988: 78). This research on policy networks and policy communities has also drawn criticism, the most important suggesting a) that this research still focuses on individual characteristics of the actors and not on characteristics of the network, and, so, b) it uses the idea of ‘network’ as a metaphor, and thus contributes little to earlier theories on decision-making (Dowding, 1995).

Intensive interactions in sector networks can be found not only at a national level, where actors are strongly focused on policy making processes, but also at a local level where implementation of sector policy is also at stake (see Lowndes and Skelcher 1998; Klijn 2001). Research on policy networks pays attention to a number of related topics:

- **The importance of sector culture** or shared frames of meaning: generally, actors within policy sectors share perceptions of the importance of the sector or professional norms and beliefs. Sabatier/Jenkins-Smith (1993) refer to these as ‘policy beliefs’ and Benson (1982) as a policy paradigm. This is evident in the health sector (e.g. Blom-Hansen, 1998) housing (Sabatier/Jenkins, 1987; Klijn, 2001); and law (Cope/Starie, 2002). These more or less shared perceptions of the field and their sedimentation as professional standards keep the network together and stable.

- **The closed character** of these sector oriented policy networks. Research shows rather stable interaction patterns between actors involved in sector politics. Although interactions can include a variety of actors, the durable character makes it difficult for new actors to enter the network. They have to become familiar with the rules in the network and invest in relationships, so incurring high transaction costs.

- **The interdependency between actors** in policy networks; although actors may have different opinions about policy aims and the division of resources, they nevertheless share a common interest in sector politics and the resources that result from that. Since they need each others’ resources, they are interdependent.

Recently, there has been greater attention to policy problems that cut across sectors and this brings the research closer to that of the governance network tradition.
Service delivery and implementation networks: getting the job done

The network literature and research on service delivery and implementation can be traced back directly to the early literature on inter-organisational relations of the 60s and 70s. In the research on inter-organisational relations there is much attention to the resource dependencies and the types of dependency relations which these cause (Negandhi, 1974; Rogers/Whetten, 1982). There is also much attention for the exchange process in which actors exchange resources and coordinate their activities.

Mapping the actors of the network through which service delivery and policy implementation was realised was an important activity in this research (Aldrich, 1979). The reconstruction of that network enabled the researcher to analyse precisely which actors were involved in implementation and service delivery and how these services and policies were ‘processed’ through the network. Research on inter-organisational coordination for the program ‘war on poverty’, for instance, showed that coordination was not easily achieved and competition between organisations frequently occurred. The researchers pictured the inter-organisational field as a self sustaining system in which only little cooperation exists and which was dominated by an ‘institutionalised thought structure’ (Warren et all, 1975). They also found, like much other research on inter-organisational coordination, that clear domains of organisations existed which resulted in frequent domain conflicts between organisations when they had to cooperate with each other (Warren et all, 1975; Aldrich, 1979; Pfeffer, 1981).

The early implementation studies using a network perspective tried to identify the network of actors who were involved in implementation, they used so-called ‘backward mapping’ (Elmore, 1979). This “bottom–up” approach, as it was labelled, focused upon the views and strategies of local implementing actors about the effects of policy outcomes instead of about the goals and strategies of central actors (Hjern and Porter 1981; Hanf/Toonen, 1985). The bottom–up approach showed that central programs offer more opportunities to local implementing actors, but that central policy is only one of many considerations in implementation processes. They have been successful in highlighting the importance of other actors (and their perceptions and strategic choices!) in implementation processes, as well as in highlighting unanticipated effects of implementation. (Hjern and Porter 1981; Barrett and Fudge, 1981).

Later research retained the interests in coordination efforts to achieve integrated services delivery. Most research on service delivery and service contracting shows a group of actors who interact intensively as a result of their dependency on delivering public integrated services (Milward and Provan 2000; Mandell 2001; Agranoff and McGuire 2003). In the case of contracting, some authors have found a tension between the need to tender the service delivery to acquire and maintain incentives for cost efficiency, and the need to promote interaction and learning processes between organizations to improve better service delivery. Contracting tends to disrupt the network, after which new learning and interaction processes are needed (Milward and Provan 2000). The expanding research into networks of actors, which take care of service delivery or policy implementation affirm the image of the “Hollow State.” The Hollow State (see Rhodes 1997; Milward and Provan 2000) refers to the image of a state which does not itself perform the policy making and service delivery tied to the modern functions of government. Instead it is charged with ensuring, by a variety of means, that services and policy outputs are delivered by other organizations. This feature has been strengthened by the recent trends towards outsourcing, privatization, and agentification that have been taking place over the last two decades (Pollitt and Bouckaert 2000). Others have
suggested that this hollowing out of function actually leads to a ‘congested’ State (Sullivan and Skelcher, 2002). Whether ‘hollow’ or ‘congested’ there has been a weakening of the position of public actors who now need many ties and connections with all kind of actors to realise their policy objectives. In a recent study on how city officials work with other layers of government and organizations to develop their city economics, Agranoff and McGuire conclude that: “From the perspective of the city Government, there is not one cluster of linkages to manage but several clusters- some horizontal, some vertical, and some that include both within the context of a single project or program” (Agranoff and McGuire 2003: 123). Thus research on networks of service delivery and implementation highlight the growing complexity of these tasks and the need for more horizontal forms of network management.

**Governance networks: connecting values for societal problems**
The literature and research in the tradition of the governance network focus primarily upon the complexity of decision-making and the problems of reaching acceptable outcomes for societal problems because of the involvement of many actors.

One of the first studies to use the idea of ‘network’ to analyse policy problems was the ‘Politikverflechtung’ study of Scharpf and colleagues (Scharpf et al, 1978) into intergovernmental relations. For example, Scharpf researched how environmental problems which can not be solved by one actor alone were addressed. He use the word ‘Politikverflechtung’ (political entanglement) for a situation which is characterized by dependency relations between different layers of government but which also characterized by a lack of central control. Pollution problems along a river, for instance, are caused at one point but have effects for other municipalities and regions, which lack the means to influence the pollution. Especially in the federative political structure of Germany, there is no coordination level which can solve this problem. They also show how the structure of the networks, being a dependency structure, the rules of the game and the normative expectations, facilitate or obstruct the solution of the problem. Often Scharpf is called a structuralist (see Rhodes, 1981) because he assumes in the study that the objective structure of the problem situation (like the dependency relations) require specific forms of coordination in which we can find a clear contingency way of thinking.

Gradually more researchers have adopted the network concept to examine how complex decisions are being made. Especially the last 15 years the number of studies has grown strongly. Although research addresses many questions there is an emphasis on decisions which require joint actions of various actors to achieve policy measures like urban regeneration, community governance (Gage/Mandell, 1990; McLaverty. 2002; Sorenson/Torzing, 2003; Mandell (2001)), infrastructure decisions (Friend at all, 1974; Klijn, 2001, labour market policies (Considine, 2002). Recently, studies have examined attempts by public actors to increase the involvement of citizens and societal groups (Papadopoulos, 2000, Klijn/Koppenjan, 2000; Lowndes/Prachtet/Stoker, 2001; McLaverty, 2002; Edelenbos, 2004). The growth of partnerships as a vehicle to organise policy making and delivery has led to much interest in governance network research (Osborne, 2000; Sullivan/Skelcher, 2002; Klijn/Teisman, 2003; Hodge/Greve, 2005). The following topics have been widely researched in the last 10 years:

- how to combine different perceptions of actors and handle the problem that actors act and interpret them differently because of these different perceptions
- how to organise necessary deliberation processes between actors (Forrester, 1989; Hayer/Wagernaar, 2003)
- how to achieve solutions that are intellectually sound, meet actor’s interests and solve the different value judgements which are at stake
- how do these deliberative processes correspond to institutions of representational democracy (McLaverty, 2002; Sorenson, 2002; Sorenson/Torfing 2006)
- what is the position of public actors in these new governance networks (Gage/Mandell, 1990; Agranoff/McGuire, 2003);

It is difficult to summarize the volume of findings, but it is possible to draw some careful conclusions about the findings. Again, the research tends to emphasize the need for governance networks to solve complex societal problems. This however can only work if much effort is directed at the management of these networks (Kickert/Klijn/Koppenjan, Sorenson/Torfing, 2003). This finding is not surprising because there has been consistent evidence of the importance of a network manager reticulist, mediator or facilitator (Friend et all, 1974; Gage/Mandell, 1990; Agranov, 1986). With this strong managerial focus there is more in common with service delivery and implementation networks than with policy network research.

Recent research is also concerned with how to combine governance networks processes with the existing institutions of representative democracy, which have a strong hierarchical way of steering (Sorenson/Torfing, 2003; Papadopoulos, 2000; Sullivan/Skelcher, 2002). Research reveals tensions between horizontal policy negotiations and the authorisation of the outcomes to those interactions. In particular, representative institutions are reluctant to accept the outcomes of the interactive process because of the threat to their authority. It also is difficult to involve representational institutions in the deliberation process (Edelenbos/Klijn, 2006). At the same time research also criticises the managerial flavour of many of the new governance forms which lacks attention for the democratic character (Sullivan/Skelcher 2002; SkelcherMathur/Smith, 2005).

**Conclusion: a perspective on policy and implementation**

Despite differences in research tradition, focus and research question, there are many similarities between the traditions discussed above. One can also see that the focus and questions that are raised are converging. In particular, the service delivery/implementation perspective and the governance network perspective share attention for the complexity of interactions between actors and the managerial efforts to organise networks. They are distinguished because governance networks explicitly focus on the question of legitimacy, while the service delivery/implementation perspective seems often to take this for granted.

Even without the observation of convergence one can see common characteristics in the literature on networks originating from the different research traditions and see something like a common perspective. One of the key concepts in this perspective is ‘mutual dependency’. As Rhodes (1988) and others, following Pfeffer (1981) have found, mutual dependencies emerge because actors do not themselves posses enough resources for survival or for the achievement of interesting goals. Thus they must interact with other organizations in order to exchange resources. Resources include financial resources, authority legitimacy or knowledge. Networks develop because these resource exchanges continue over time.

Although the framework of the network perspective is strongly influenced by resource dependency theory it is also influenced by the literature on complex decision-making in Public Administration and the literature on frames and learning from organisation theory.
Most theoretical network perspectives on policy formation and implementation agree on at least the following characteristics of networks:

- **Actors and frames**: policy is formed and implemented in a network of actors. Often a lot of different actors are present in these networks. Although these actors are interdependent, it is crucial to the network perspective that they are also conceived of as autonomous actors making their own strategic decisions. Most network researchers also stress that actors choose these strategies on the basis of their own perceptions of the world and thus have different views (frames) on problems and solutions (Schon/Rein, 1994). Actors can be individuals groups or organisations although the emphasis is on the last category. If analysis shows that an organisation is not the originator of the action (for instance because a ministry is divided in separate sections with their own interests, perceptions and strategies) than it should then focus upon the separate sections of an organisation.

- **Interactions and complexity**: as a consequence of the interdependencies and the variety of perceptions of the actors, network theory recognizes that complex interaction and negotiating patterns surround policy problems and policy implementation. These decision-making processes could be labelled as *games* since this conceptualizes nicely the complexity which arises out of different players using strategies that interact with each other to achieve outcomes. It also captures the notion that outcomes can be unpredictable due to the interaction of strategies (and changes in strategies) of separate actors. Since outcomes can only be achieved through cooperation (due to interdependency of resources) actors have to reach a minimum agreement on where to go and how to coordinate their efforts. Such coordination does not arrive by itself (?)..

- **Institutional features**: the lasting interaction between actors ensures that patterns of interactions and institutional features develop. The political science and organisation theory tradition of networks have been particularly concerned with adopting quantitative methods to map interactions and identify the structural features that arise (Aldrich/Whetten, 19981; Lauman/Knoke, 1987; Scott, 1991). In addition rules are constructed through the enduring interactions of the actors involved, which then also guide and aid further interaction in networks (Klijn, 2001).

- **Network management**: The complexity of interactions and the different perceptions of actors collaboration requires guidance and managing actions, this is often referred to as network management (Friend, Power and Yewlett, 1974; Gage/Mandell, 1990; Kickert/Klijn/Koppenjan, 1997; Trevillian, 1999; Meir and O Toole, 2001). These activities differ significantly from the usual activities mentioned in the organisational textbooks on intra-organisational management.

The emerging network perspective on public policy making and implementation (and service delivery) has become popular both in the academic literature and in administrative practice. It is also has important consequences for our ideas about the management of policy processes. These are elaborated in the next section.

**3. MANAGING AND STEERING NETWORKS**

From a network or inter-organizational perspective, policy-making and implementation is a complex process. Interesting outcomes for the actors involved do not occur automatically but have to be managed and coordinated carefully. This is in contrast to ‘conventional public
administration’, which strongly emphasizes political decision making and goal setting as important factors. Such an approach focuses primarily upon the relationship between political decision makers andobject implementing bodies are organized (clear goal setting, strong monitoring and steering opportunities, etc.). Such an observation holds not only for traditional public administration studies but also a lot of implementation studies which implicitly take central goals of central (departmental) actors as a starting point for analysis (see for instance the classical work of Pressman and Wildavsky (1983). It is also central to more recent theories such as the ideas expressed in New Public Management and many contracting theories (see Osborne and Gaebler for the most clear example).

**The Public Manager as Network Manager**

Almost all the literature on networks and inter-organizational management agree that the role of the public manager differs significantly from portrayals in standard textbooks. These present the image of an identifiable organisation, with clear hierarchy and goals and well defined management positions (Robbins, 1980). The literature that followed the influential publication of Hanf and Scharpf (1978) ascribe more or less the same characteristics to the position and role of the so called network manager (Agranoff 1986, 2003; Agranoff and McGuire 2003; Friend, Power and Yewlett, 1974; Mandell 1990; Kickert, Klijn, and Koppenjan 1997). These include:

- **Power and authority.** Since the network manager is dependent on the resources of other actors and most of the time has at best limited authority over other organizations, she operates in a divided power structure (Bryson and Crosby 1992). Unlike standard accounts of managerial authority, the network manager simply does not have the position and authority to make unilateral decisions. This does not mean that there are no power differences or that power does not matter (or give reference). From a network or inter-organizational perspective, the power of an actor depends on the range of resources available to her and the ways in which she is dependent on the resources of other actors (see Emerson 1962; Scharpf 1978). The more the various actors are mutually dependent on each other’s resources the more equal the power division in the network. But even powerful actors have limited authority since they have no direct authority regarding the way other actors use their resources.

- **Goal Structure.** Activities are not guided by uniform, clear goals such as those ascribed to internal organisational settings, where they are often also scarce!- because the various actors involved have different goals. Goals also emerge during the co-operation process (Agranoff 1986; Mandell 1990). Much of the literature on governance networks suggests that goal seeking constitutes a large part of decision and co-operation processes in networks (Forrester 1989, Mandell, 1990). It also often makes the goal structure of inter-organizational co-operations and decision making more like a ‘menu’, where different actors find interesting elements that suit their interests and capacities, rather than a unified common goal (Koppenjan and Klijn, 2004; Huxham and Vangen, 2005;).

- **Management Activities.** In the traditional literature on management, the activities of the manager are described as comprising three major tasks: setting the goals (planning); structuring and designing the organization (organizing); and ‘getting the job done’ (leading) (see Robbins 1980). Network management activities are more focused on bringing different actors together, adjusting and accommodating goals and perceptions, and building organizational arrangements to sustain and strengthen interactions. If we were to name three network management equivalents of planning,
organizing, and leading, these would probably be goal finding and perception, accommodation, making organizational arrangements, and coordinating.

In sum, the role of the manager from an inter-organizational network perspective is equivalent to that of a mediator, a process manager or a facilitator. This is because network management is in essence an inter-organizational activity (see Friend et al. 1974; Hanf and Scharpf 1978; Lynn 1981; Gage and Mandell 1990; Kickert, Klijn, and Koppenjan 1997).

**Strategies of Network Management**

The number of network management strategies identified in the literature is impressive and this is not the place to describe them (see Gage and Mandell 1990; O’Toole 1988, Agranoff and McGuire 2001). It is clear, however, that if the network manager is to achieve important outcomes a range of different strategies is required (see Kickert, Klijn, and Koppenjan 1997; Agranoff and McGuire 2001). These include activating actors and resources, coordinating goal-achieving mechanisms (including influencing the perceptions and goals of other actors), fostering organizational arrangements to facilitate and enable interactions between actors, and coordinating the stream of actions and interactions between different actors.

On the other hand, we have seen that networks consist of concrete interactions between actors within a network structure that is created by the actors (partly willingly and consciously, but partly as result of prior interactions and established ways of behaving). This means that network management strategies may be aimed at bringing about changes in the interactions of actors effecting changes at the network level or both (Kickert, Klijn, and Koppenjan 1997). Although making no claims to be exhaustive, Table 5.2 summarizes the main strategies of network management (for an overview of the many different strategies of network management: Hanf and Scharpf 1978; O’Toole 1988; Gage and Mandell 1990; Kickert, Klijn, and Koppenjan 1997; Agranoff and McGuire 2001; Koppenjan and Klijn 2004). Not all the strategies mentioned in any one cell are mutually exclusive. One can, for instance, influence the perceptions of actors by initiating a search process for variety in solutions.

Strategies for the activation of actors or resources are necessary to start the game. The network manager has to identify the actors necessary for an initiative and actually create a situation in which they become interested in investing their resources (see also Lynn 1981). Scharpf (1978) calls this ‘selective activation’. Inter-organizational policy making requires correct identification of necessary participants and a lack of opposition from other actors with the ability to block the initiative. Conversely, the manager may wish to deactivate actors because their involvement is not productive. This of course also evokes normative questions, which are beyond the scope this chapter. Once the game has started it is necessary to clarify the goals and perceptions of actors and to try to invest time and money in developing solutions that create opportunities for actors’ participation (Koppenjan and Klijn 2004). Creating temporary organizational arrangements to facilitate interactions is also important (Mulford/Rogers, 1982; Gage/Mandell, 1990). The transaction costs of these arrangements have to be kept as low as possible. Most of the time actors themselves understand this very well. Empirical research shows that despite all the talk about coordinating partnerships empirical research shows that organisational arrangements are often lacking or relatively light (Osborne, 2000; Hodge/Greve, 2005). Last but not least, the interactions in the game itself have to be managed. This can be done by appointing a process manager who invests time and energy in connecting the actions and strategies of actors throughout their interactions.
At the network level, the manager also has opportunities for intervening. Contrary to strategies aimed at managing the interactions, which assume a given network (and its rules and beliefs), interventions are aimed at changing the network, mostly by changing rules in the network. These could be rules of entry and exit (allowing new actors to enter), rules on evaluation (for instance in a very classical way by changing the reward structure by means of subsidizing) or changing conflict rules (see for an extensive elaboration of various strategies Koppenjan/Klijn, 2004).

These strategies are highly time-consuming and often more open to conflict and criticism because they are dangerous to established positions. They involve all kinds of normative questions (Koppenjan and Klijn 2004). Nevertheless, one can see many of these strategies in practice where (mostly) central public actors (like central politicians) try to achieve different outcomes by changing the rules for interactions, changing the positions of actors or using one of the other strategies that are shown in Table 5.2

**The effects of network management**

O’Toole and Meier did research on the effects of network management activities using data collected from a large number of Texas school superintendents in different educational districts. Superintendents were asked how frequently they interacted with key environmental actors (school boards, local business leaders, other superintendents, and the state education agency). These frequency rankings were used to produce a measurement of network management and were connected to indicators of success and failure in the different educational networks in the districts (Meier and O’Toole 2001). They found that managerial networking was positively correlated with primary goals (they used standardised test scores to measure effectiveness), and also with other indicators of organizational performance. They also looked at the role of personnel stability and found that these were positively correlated to outcome indicators (O’Toole/Meier, 2003). They conclude: “The results of our analysis reconfirm the importance of management while it offers substantial support for the notion that personnel stability at both the managerial and the front-line level contributes positively to performance” (O’Toole/Meier, 2003: 61). Although Meier and O’Toole did not look at specific managerial strategies (such as those mentioned in Table 5.2) and thus were not able to assess the effect of certain types of strategies, their findings indicate that managing network interactions does has a positive effect on outcomes.

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**Table 5.2 Overview of network management strategies**

<table>
<thead>
<tr>
<th>Management of interactions</th>
<th>Activation of actors and resources</th>
<th>Goal achieving strategies</th>
<th>Organizational arrangements</th>
<th>Interaction guiding strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selective activation, resource mobilizing, stabilisation, deactivation of actors and resources, initiating new series of interaction, coalition building</td>
<td>Selective activation, resource mobilizing, stabilisation, deactivation of actors and resources, initiating new series of interaction, coalition building</td>
<td>Searching for goal congruency, creating variation in solutions, influencing (and explicating) perceptions, managing and collecting information and research</td>
<td>Creating new ad hoc organizational arrangements (boards, project organizations, etc.)</td>
<td>Mediation, brokerage, appointing of process manager, removing obstacles to co-operation, creating incentives for co-operation</td>
</tr>
<tr>
<td>Network activation, changing composition of networks, changing position of actors, - changing</td>
<td>Network activation, changing composition of networks, changing position of actors, - changing</td>
<td>Reframing of perceptions, changing decision rules in networks, changing information flow permanently</td>
<td>Creating permanent organizational constructions</td>
<td>Changing or setting rules for conflict regulation, for information flow, changing pay-off rules or professional codes</td>
</tr>
</tbody>
</table>

Adapted from Klijn, 2005
The role of public actors
When public actors take adopt a network manager role it requires that they play a less dominant role than if they use top down steering. For that reason network steering has raised criticism that it hollows out the representational democracy and that it makes the ‘general interest’ ‘negotiable’. It is not possible here to deal fully with this discussion but two observations can be made, one normative and one empirical:

- The general interest is not without problems in modern pluriform network society. Complex value conflicts in most public and societal decisions mean that even public actors reveal different interests and opinions about what that general interest is. Are the positions of elected central office holders more legitimate than those of local elected office holders? The argument, emphasised in the network governance literature, is that something like a common interest is constructed during complex interaction processes. It is precisely this construction process which is the political part of the process and thereby also raises difficulties (Forrester, 1989; Klijn/Koppenjan, 2000a; Hayer/Wagenaar, 2003);

- Scholars and practitioners recognise that it is very difficult to form and implement public policy in ‘splendid isolation’ and the empirical research of the last 20 years clearly supports this. Whatever is though of the first argument above, the pragmatic argument is that networks are simply an empirical reality and that public actors have to deal with them anyway.

Public actors can always choose not to join networks or, if they are party to it, simply use central top down steering mechanisms. Empirical research shows however that these strategies are not often (which does not mean always!) very effective. Public actors can also choose to represent their own interests and leave the role of network manager to someone else. If a public actor wants to perform the role of network manager it requires a facilitative role where some distance is maintained from the representation of the goals and interests of that actor. Such a role may also focus strongly upon securing access to the decision-making process of other actors (especially actors which normally do not have easy access). In that case the general interest is interpreted in procedural terms e.g. as securing an appropriate decision-making process (Klijn/Koppenjan, 2000).

Managing stakeholder involvement in complex decision-making
A substantial part of the literature on governance networks is concerned with increasing citizens’ involvement in policy making and decision-making (see Sorenson/Torfing, 2006). The supposed advantages (more citizens’ support, better outcomes and more democratic legitimacy) are however not always easy to achieve. Edelenbos and Klijn (2006) looked at six cases of so called interactive decision-making in the Netherlands. Interactive decision-making is a new form of governance in which public actors, in this case local municipalities, involve stakeholders in the formation (and implementation) of public policy. Inspired by ideas of network theory on process management they compared the results of these processes and showed that in only two of the cases unambiguously positive outcomes have been achieved in terms of actor contentment and enrichment. They relate the outcomes to three organisational variables: stakeholder participation, the relation between the interactive process and the position of the municipal council and last but not least network management efforts (being the presence of a process design and the activity and flexibility of a network manager). The results show that positive outcomes in the cases are most clearly related to active and flexible network management while it is, surprisingly, difficult to see a link between outcomes and the degree to which municipal councils are involved since the involvement of municipal councils in general was low. The authors conclude: “. the outcomes
seem to stress that participation is strongly appreciated by stakeholders if they see any real outcomes from this participation…our findings provide a good impression of the importance of good process management for the success of interactive processes” (Edelenbos/Klijn, 2006 forthcoming)

5. RESEARCHING NETWORKS: ACTOR, GAME AND NETWORK ANALYSIS

If policy is made and implemented in networks, the practitioner or policy analyst needs to know what the characteristics of the actors are, what the network they are in looks like, and, last but not least, how the interaction process should or can be conducted. The assumption is that the institutional characteristics of the network (rules, interactions patterns) matter and form the conditions in which specific actors and their characteristics (their resources, their perceptions of the world) achieve concrete outputs (policy outcomes, services etc.) in interaction processes.

Three types of analysis

For a full understanding of the policy processes and their outcomes we need to combine three types of analysis (Koppenjan/Klijn, 2004):

- **Actor analysis**: Actors are the basic units of analysis because they are the source from which actions originate. Important analytical steps are the identification of the important actors and the reconstruction of their perceptions on important topics such as the nature of the problem, the desired solutions or their views on other actors. After all the assumption in most network theories on policy making and implementation is that these perceptions or frames inform and inspire the choice of strategies of actors (see also Schon/Rein, 1994; Huxham/Vangen, 2005). It is also important to get a picture of the resources of each actor and the dependency relations (see also chapter 14) which result from the resource distribution between the actors.

- **Game analysis**: Policy outcomes and policy implementation in the network perspective are a result of the complex interaction of various actors’ strategies. In more complex policy problems these interactions often take place in different arenas, thereby enhancing the complexity of the decision-making process. These decision-making processes, which are called games, have to be analysed to know what is happening and why. Although many steps in this analysis can be isolated (like identifying actors’ strategies, crucial decisions and external events), highlighting two important steps illustrates the complexity of the process and its character. These steps are determining relevant arenas, and identifying and analysing stagnations. Determining the arenas requires identifying the groups of actors and interaction situations that are relevant for the policy decision or implementation process under study. For the practitioner this gives him/her a flavour of the complexity of the game and a hint about where he/she should be present to influence or even manage the game. For the analyst is makes clear how the outcomes are influenced by various decisions taken at various places. Identifying stagnations in the process (and assessing the influence of actors strategies on that) assists in knowing where to start if you want to improve the decision-making process (the practitioner). When decision-making accelerates or dies off it also aids in knowing the consequences of this for achieving outcomes (analyst)
Network analysis; Getting a picture of the network and its characteristics is central to the assessment of the influence of institutional characteristics upon the decision-making process. There are several analytical steps, which can be important in this respect. Mapping the interaction patterns through social network analysis techniques is a very classical way to get an image of the central and peripheral actors in the networks and, which actors are connected to each other. Of course the demarcation problem (what are the borders of the network) is always difficult. One can look at the frequency of interactions to decide where to cut of the network, or ask the respondents directly for their opinion about who is in the network or not. This is a decision for the researcher who should keep the analytical value of different techniques and their relevance in mind. Looking at ties that seem to exist between actors in different networks is useful when analysing links between networks. There are several established statistical packages to analyse networks and their interactions (Scott, 1991) with even the regular SPPS packages offering possibilities to analyse interaction patterns nowadays (see for more information chapter12). One can also use Multi Dimensional Scaling. This frequently used technique for network analysis calculates distances between actors in a network on the basis of interactions matrices that contain information about the interactions of each actor with the other actors. A complex diagram is presented in two dimensions and identifies which actors with the same pattern of interaction find themselves close to each other (see Scott, 1991. The same procedure can be used in analyzing perceptions (mapping them or making a MDS analysis). These are measured by asking the actors involved to respond to explicit statements. Mapping interaction however does not give the analyst more (which is still very valuable!) information than the interaction pattern at a certain moment in time. It does not tell much about the structure of the network or rather the rules that guide actors’ behaviour and construct their meaning (Giddens, 1984). The reconstruction of formal rules is not very difficult and only requires close reading of the official texts (laws, regulations etc). The reconstruction of informal rules however is far more laborious. It requires the in-depth interviewing of actors involved, as well as confronting the findings with one another other (Klijn, 2001). It can however be a very satisfactory since it is capable of revealing the kinds of rules that actors establish within processes such as rules about profession, about the entry of actors in the network and about the exchange of information, to name a few examples (See Ostrom, 1986; Burns/Flam, 1987; Klijn, 2001).

Table 5.3 provides an overview of a various analytical steps in the actor, the game and the network analysis.

<table>
<thead>
<tr>
<th>Step</th>
<th>Intention</th>
<th>Important Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Actor Analysis</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.3 Steps in Actors, Game and Network Analysis
| **Take a provisional formulation of a problem or initiative as starting point** | **Mapping a problem situation or initiative as starting point for further analysis** | - What does the current or expected situation look like?  
- What are the (undesirable) consequences that flow from that?  
- What are regarded as the causes for this situation?  
- What is the desired situation?  
- What goals and criteria underlie this?  
- Which solutions / policy alternatives are pursued? |
|---|---|---|
| **Identify actors involved** | **Which actors need to be taken into account** | - Who can be distinguished as the acting units?  
- Which actors in the network are important to realizing one’s own objectives or policy goals?  
- Which actors have an interest in finding a solution to the problem situation? |
| **Reconstruct perceptions of actors** | **Mapping images of actors with regard to the problem, the solution, and other actors** | - what images do actors hold about aspects such as problem, causes, solutions and (competency) of each other?  
- to what degree do these perceptions differ, are there clear groups?  
- What obstacles could be caused by differences in perception? |
| **Analyze actor positions and dependencies** | **What positions do actors take with regard to the problem situation and how much do actors depend upon each other** | - what means do different actors have at their disposal?  
- how important are these means and can they be acquired elsewhere?  
- is there unilateral or mutual dependency?  
- are actors critical, dedicated and/or comparable? |
| **Game Analysis** | **Acknowledging coherent groups of actors and interaction situations around demarcated policy issues and/or initiatives that are meaningful to the initial initiative or policy game** | - where are the decisions made that are important to the initiative/policy game that is analyzed?  
- which actors interact in which context (sector, policy content, ad hoc etc.)?  
- how coherent are these groups of actors?  
- do these groups of actors have relations with each other (linkages)? |
| **Identify and analyze stagnation** | **Inventory stagnation in the game and determine the nature and structure of stagnation as a starting point for managing interventions** | - is there stagnation in the game?  
- what is the nature and structure of stagnation?  
- which players are involved in the stagnation?  
- are these blockades or stagnation?  
- to what extent is the stagnation cognitive by nature?  
- to what extent is the stagnation social by nature? |
### Network Analysis

| Inventory of interaction patterns of actors | Through mapping the frequency and diversity of interactions of actors, networks and the actors who belong to them can be determined | - which actors interact frequently and which infrequently?  
- which actors have a varying contact pattern and which do not?  
- which actors are central and peripheral in the network given their contact pattern? |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Inventory of patterns in actors’ perception | By determining the relation in perceptions among actors, one can discover which networks actor belong to | - what perceptions do actors hold with regard to problems, solutions, and their environment?  
- to what degree do these perceptions correspond to those of other actors? |
| Inventory of institutional provisions that connect actors in networks | Make an inventory of and analyze the formal and informal rules of the game and other organizational arrangements in the network relevant to the policy game | - what formal rules and juridical procedures apply?  
- what informal rules can be distinguished (for instance, with regard to information provision, access opportunities, professional codes etc.)?  
- what meeting and consultation procedures or other organizational constructions exist in the network that structure the policy game? |

Adapted from: Koppenjan/Klijn, 2004

### Handling the analytical steps

It is of course not always necessary to perform all the analytical steps described in table 5.3. In many cases the analyst can restrict himself/herself to some of the steps or even pick out several elements of the steps. This could be connected to the type of problems one is facing or the needs of the actors in the network. Each of the steps can also be performed extensively in a scientific manner or very loosely.

Another problem is that the dynamics in most networks are intense and situations change. This probably means that (parts of) the analysis has to be repeated over time. This is also a strategic decision, in which the costs of analysis have to be weighed against the gains.

### 6. CONCLUSION: FUTURE FOR A NETWORK PERSPECTIVE ON POLICY

It can be concluded that the network perspective offers an interesting and promising theoretical perspective. It has generated a lot of empirical material on the complexity of policy making and implementation processes, on the need for extensive ‘horizontal’ and unorthodox forms of management. Recent research also indicates that in order to achieve important policy outcomes and (integrated) service delivery, public actors often need more than one network (Agranoff/McGuire, 2003), which make their managerial tasks even more complicated. Further development is certainly needed. Several authors have criticized network theory because most of the variables seemed to be on the actor level rather than on the network level (Dowding, 1995; Pollitt, 2003ba). This is not entirely correct since there is research which
considers network characteristics (either the pattern of relations or the constructed rules). Nevertheless there is no doubt that the influence of network characteristics and how to analyse them requires more sustained theoretical and methodological attention.

In addition, more research is needed to investigate the way that the institutional features of different networks clash since the many policy initiatives nowadays require the involvement of different networks. Last, but certainly not least, more attention needs to be devoted to the relationship between horizontal forms of managing and the problem of accountability in networks. The key question – both theoretical and practical - to be answered by network researchers is: how can accountability be arranged or, more likely, rearranged so that it ties in with and addresses the problem of the empirically complex world of networks? This is a world in which resources are dispersed, actors have opportunities to block decisions and societal problems can only be solved by the involvement of a large group of actors. A final related question concerns the democratic basis of policy network management: how may citizens be involved in such complex decision-making processes and how may they be tied to the “traditional” institutions of parliamentary democracy?

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