

Chapter 1

Introduction: Studying Policy Networks

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Social scientists who, in a curiously self-referential process, attentively observe the changing conceptual "fashions" in their own discipline have lately pointed to the ascendance of a new key term: policy networks. By definition of what makes a theoretical "fashion", this term is attributed great analytical promise by its proponents, whereas critical commentators argue that its meaning is still vague and that the perspective it implies has not yet matured into anything like a coherent (middle range) theory. What they agree on is their subject of concern, discourse and dispute, and that is sufficient to establish "policy networks" on the theoretical agenda of contemporary social science, without necessarily guaranteeing the declared value. On the contrary, a speculative oversupply of networking terminology may inflate its explanatory power so that some form of intellectual control over the conceptual currency in circulation, both its precise designations and its amount of diffusion, become inevitably a clearance process within the profession.

This situation obviously entails a welcome challenge which we have taken up in organizing, with the help of Patrick Kenis and Volker Schneider, in December 1989 a conference under the heading "Policy Networks: Structural Analysis of Public Policy Making". The present volume grew out of this conference, though it is not simply a collection of conference papers. For one thing we have included only such conference contributions as would fit together in terms of topic and approach. Even so, several of the original papers had to be substantially revised to meet this goal. On the other hand we decided to include two papers not presented at the conference, but which appeared to fit well with the selection of conference contributions as chapters of the book.

In spite of the editorial efforts to put together a coherent volume rather than simply publishing yet another set of conference proceedings,

we have not achieved, nor tried to achieve, anything like homogeneity - and even less so anything like an authoritative conceptual clarification. On the contrary, the book reflects the rather imperfect state of the art as to its colorful taxonomic and methodological pluralism, and at the same time provides the opportunity to learn from a great diversity of empirical studies.

As can be seen from the overview table, the chapters in this book cover a broad range of policy networks and governance foci, a wide variety of sectors analyzed, and many different, occasionally even multiple types of comparisons.

The table also indicates an axis for structuring the volume, by combining a substantial (policy sector and governance focus) and a methodological (type of comparison) dimension. What it does not indicate is the terminological as well as the methodological variety which may be found. What Laumann et al., for instance, call a policy domain is a policy sector in the parlance of most of the other authors. Again, what Coleman designates as a policy community is quite distinct from the meaning this term is given e.g. by Campbell et al. (1989). But there is no confusion resulting from such terminological diversity since in most cases the key terms are either explicitly or implicitly defined, so that the reader knows what the authors are talking about; this, of course, holds especially for empirical case studies such as we have assembled in this volume.

The chapters in the book also differ in their methodological approach. Some are qualitative analyses in the political science tradition (e.g. the chapters by Coleman and by Döhler), some use sophisticated quantitative methods of sociological network analysis (e.g. the chapters by Laumann et al. and by Pappi & Knoke); finally there is a third group of contributions which draw on both of these traditions - most clearly the chapter by Schneider & Werle. This diversity of approaches reflects the current "state of the art" in policy network research. In itself, "policy network" is a concept that appears to signal the confluence of two research traditions, (sociological) network analysis, and studies of policy making. In fact, however, as Kenis and Schneider note in chapter 2, most policy network studies to date have remained qualitative and "soft". As it is hoped that this volume will contribute to an intensified intellectual exchange between those working in a more qualitative approach and those working with quantitative data, we have quite intentionally selected examples from both research traditions for this book. This should also afford the opportunity to evaluate their respective potentials as well as

Table 1: Policy Network Studies

GOVERNANCE FOCUS	POLICY FIELD DOMAIN SECTOR	COMPARISONS		
		Between Countries Cross-National	Between Policy Fields Cross-Sectoral	Over Time Diachronic
ECONOMY SCIENCE & TECHNOLOGY HEALTH	Agricultural Policy	—	<i>Laumann</i>	—
	Industrial Restructuring Policy	<i>Kenis</i>	—	<i>Kenis</i>
	Monetary Policy	<i>Coleman</i>	—	—
	Labor Policy	<i>Pappi</i>	<i>Laumann</i>	—
	Energy Policy	—	<i>Laumann</i>	—
	Telecommuni- cations Policy	—	—	<i>Schneider/Werle</i>
	Superconduc- tivity Policy	—	—	<i>Jansen</i>
	Health Policy	<i>Döhler</i>	<i>Laumann</i>	<i>Döhler</i>

the chances of actually achieving that integration which the key term "policy network" only hints at now.

In spite of these differences between them, the chapters of this book also have a number of things in common. First, with the exception of the overview chapter by Kenis & Schneider, all contributions report on results from *primary research* and *empirical studies*. Whereas methodologies, techniques used and empirical evidence vary widely, all studies interpret findings based on genuine and primary research work and data generation.

Secondly, all of these studies are *comparative cross-sectoral*, or *cross-national*, or *diachronic* in design, comparing policy networks in different policy sectors, in different countries, or at different points in time; Döhler and Kenis even combine two comparative dimensions by studying a given policy field (health and industrial restructuring) cross-nationally and also diachronically, over different periods of time. Coleman and Pappi compare countries (Canada/US and Germany/US) in monetary and labor policy, Jansen and Schneider & Werle compare network developments within one high-tech sector such as superconductivity and telecommunications in one country (Germany) over time. And Laumann et al. compare networking in one country across a broad range of sectors - agriculture, energy, labor, and health in the United States.

Thirdly, with the exception of Laumann et al. who study networking processes without structured and organized policy networks, all other empirical studies focus on structured sets of corporate or collective actors (and on individuals only as representatives of formal organizations or agencies). This is a distinguishing characteristic of most recent policy network research: Policy networks do not refer any longer to "networking" of individual personalities, to group collusions, to the interlocking of cliques, elites, party or class factions, as in older traditions, but to the *collective action of organized, corporate actors*, and consequently to *interorganizational relations in public policy making*.

Fourthly, all studies analyze policy networks in their proper domain frame and that is on the *meso (sectoral) level* of specific policy fields. While the eight policy sectors analyzed in detail refer to three main contemporary macropolitical challenges one could call governance foci - governing the economy, promoting science and technology, and reforming health - the comparisons between policy fields, countries and over time always take place at the level where policy networks actually operate - in more or less well-defined sectors.

Finally, all chapters address questions about the nature, determinants, and consequences of policy networks as the social infrastructure of policy formulation and implementation. Taken together, they highlight the most salient theoretical issues in this new field of research.

In this introduction, we shall briefly indicate some of the more general conclusions that can be drawn from the various contributions to this volume. But before turning to substantive issues we must come back for a moment to the problems, briefly indicated, of terminology.

This book is *not* about conceptual issues. They are specifically addressed only in the overview chapter by Kenis & Schneider, and tangentially in some others (e.g. Jansen), but by and large the authors simply choose and use a specific terminology. In principle, conceptual issues can be easily resolved if one adopts a nominalist position. The properties of phenomena named "policy networks" cannot be derived from the concept (except in a tautological manner); we must choose what we want them to designate. This is good nominalist practice. That it seems so difficult to establish an accepted terminological convention in this case reflects the inevitable ambiguity which surrounds all concepts referring to phenomena of a highly abstracted, intangible character. In such cases there are normally many related and yet distinct ways of circumscribing the object of cognition, depending on the particular aspect of a complex reality singled out for closer inspection. Such differences in conceptual practice are even useful because they call attention to the various dimensions needed to describe empirical phenomena of the class one is interested in, to help in the construction of a multi-dimensional property space in which different policy making structures can be located.

Kenis's and Schneider's initial definition of policy networks as policy making arrangements characterized by the predominance of informal, decentralized and horizontal relations reflects what might be called *one* emerging mainstream view. Defined in this way, the concept emphasizes that the policy process is not completely and exclusively structured by formal institutional arrangements. It also emphasizes that the relationship among those who *de facto* participate in the process is not hierarchical. The actors making up a policy network are interdependent, but - by and large - formally autonomous. This is not to say that policy is never developed within hierarchical structures; the policy network concept simply calls attention to the fact that the participants in a collective decision process are often linked laterally (or horizontally) rather than vertically. This particular definitional characteristic of *policy* networks differs from

the tradition of network analysis, as Kenis and Schneider point out; there, the relational structures investigated include hierarchies as one possible configuration. In this tradition of policy analysis, networks are *contrasted* to hierarchies. Yet power can be more or less concentrated: policy networks are characterized by a patterned distribution of decision making powers.

A somewhat contrasting view with regard to both traditional network analysis and the Kenis & Schneider counterposition is held by one of the editors (Marin 1990a: 19-20, 56-58). While policy networks *are* predominantly informal, decentralized and horizontal, they never operate completely outside power-dependence relations, i.e. outside asymmetric interdependencies and unequal mutual adjustments between autonomous actors, imbalanced transactions-chains, and vertically directed flows of influence. Hierarchies neither are one possible structural configuration among others nor the ideal typical counterpart to horizontal structures such as policy networks, but in the sense of Nobel Laureate H. A. Simon (1962) almost omnipresent asymmetric interdependencies between system elements and, therefore, continua or matters of degree: formal organizations are more or less hierarchically structured, and so are policy networks. What distinguishes bureaucracies and complex organizations in general from policy networks are not so much hierarchical vs. horizontal relations, but single organizational vs. interorganizational relations and the nature of power relations permeating *both*, but in *different* ways: the control over strategic rigidities in tight or loosely coupled systems, the conditions of entry/exit, inclusion/exclusion/expulsion, membership or other adherences, etc.

Policy networks are explicitly defined not only by their structure as *interorganizational* arrangements, but also by their function - the *formulation and implementation of policy*. This provides a useful criterion for boundary specification, the inclusion or exclusion of players of a specific game: actors who do not in one way or another participate in the collective decision process generating a policy are not included in the network. If policy is simply taken to mean a consistent strategy, policy networks need not refer to *public* policy (but may, for instance, refer to a collective market strategy of business firms, as in the study by Kenis), but this is how the term is understood by all other contributions to the volume.

If "policy" usually means public policy in policy network studies, this does not imply that state agents must be the focal or dominant par-

ticipants. There are studies of networks composed mainly or even exclusively of public actors, as in the analysis of intergovernmental relations. In this book, Coleman presents a case where public actors and their interrelations predominate. In largely self-regulated sectors, on the other hand, *public* policy may well be formulated by private actors (to be initiated or subsequently endorsed by the proper political authorities). Most policy networks studied, however, are characterized by a mixture of public and private actors; in fact, the joint participation of public *and* private (corporative) actors is for many as much the hallmark of policy networks as is the decentering of the central state, the emergence of what is sometimes called a "*centerless society*". As the relative weight - numerical and in terms of power - of each category becomes a descriptive dimension of focal importance, and that is a purely empirical question, there is and can no longer be any a priori assumption of a crucial, central, hegemonic actor, which is ultimately determinant or only significant or even simply present in all kinds of policy networks.

If the actors in a policy network are interdependent and interact in a collective decision process, this does not necessarily spell harmonious collaboration - or even only what game-theoretical language describes as coordination games. Instead, the extent - and exact structure - of consensus and opposition, symbiotic collusion or competition, cooperation or antagonism or antagonistic cooperation constitute another important dimension in the description of a given policy network. Marin (1990a) argues that the divergent, competitive or even antagonistic interests structurally prevailing in most policy networks make *antagonistic cooperation* the prevalent, if not defining, feature of such interorganizational arrangements.

There are other descriptive dimensions which could be used in a minimal definition of policy networks, and also to distinguish different types of policy networks. The *number of actors*, for instance, can vary greatly - but not indefinitely. While the classical "iron triangle" is composed of only three major actors, Laumann et al. identified around 80 participants each in the four policy networks they analyze. But could we reasonably think of policy networks with several hundreds of participants, with a sheer co-presence of many actors within the same political arena? Even the Laumann et al. case may be a kind of outlier due to their focus on networking rather than on policy networks proper: only a *few* or *not too many* actors can actually *inter-act* with each other - instead of either simply re-acting more or less uniformly to the same

(political or price) market signals or of being organized into more or less uniform action within the same bureaucratic hierarchy. Policy networks are composed of autonomous, but interdependent actors, with divergent and mutually contingent interests - and the corresponding complexities put an obvious, even if not precisely and once and for all quantifiable limit to the number of collective actors able to operate a policy network and to interact strategically within it.

So far, we have a number both of defining components as well as of dimensions along which policy networks may vary, but within a certain range only in order not to lose their character as policy networks: being anchored in policy sectors; requiring collective action; composed of corporate actors; structured as interorganizational relations; predominantly informal and horizontal, but not without asymmetric interdependencies which means power relations; functionally defined by the formulation and implementation of policy; without stable central or hegemonic actors; involving not too many participants; and characterized by strategic interaction and a predominance of antagonistic cooperation or mixed-motive games.

There are other aspects with respect to which policy networks can vary. Policy networks, for instance, can exist on *different territorial levels*: there are international (e.g. European), nationwide, regional and even local networks; empirical research has so far concentrated on national policy networks, a fact that is fully reflected in this book. The *stability* of policy networks over time and across decision events, or issues, is another variable of great interest, to which several of the chapters devote attention. Finally, what one might call the *action focus* of policy networks can vary: some are of macro-political importance, as in corporatist networks dealing with a stream of different economic policy issues, some have a narrower focus (sectoral or subsectoral networks), and some are formed around a single issue.

In listing these dimensions along which policy networks may vary, it is important to keep apart matters of conceptual clarification which must be settled by definition (i.e. the choice of properties included in a minimal definition of policy networks) from empirical issues, i.e. the question what structures meeting the criteria which define policy networks actually look like. Major questions of this kind refer to variations across nations, sectors, and time - and to their causes and consequences. It is to such substantive issues that we now turn.

Empirical research on policy networks serves generally to test assumptions about policy making, particularly the structures which underlie - and shape - the process and its outcome. Behind this kind of cognitive interest stands the general premise that structured social relationships have more explanatory power than personal attributes of actors (Wellman 1988: 31). The specific question raised by the notion of policy networks - do those who are formally responsible for it actually monopolize policy making - is not new; it stands in a long tradition of comparing political reality with normative expectations. Thus the discovery of the "subgovernments" active in US policy making, an early version of policy networks (Jordan 1990), meant the destruction of an illusion, rather than indicating a change in reality. In contrast it is a major tenet of the policy networks approach, forcefully argued by Kenis & Schneider in chapter 2, that policy networks are indeed (relatively) new phenomena that have emerged in response to a growing dispersion of the resources and the capacities for action among public and private actors. In this perspective, structural changes in society and in the polity are ultimately responsible for the emergence of policy networks - as a new structure in, and mode of, policy making. This does not exclude that state agents have at times actively assisted in the process of network construction ("networking" as a political strategy).

If policy networks emerge in response to the exigencies of policy making under changing conditions, it should be possible to observe that policy networks change structurally over time. One such change, the expansion of small and stable "iron triangles" into large and fluidly bounded issue networks has been suggested, though not empirically proven, by Heclo (1978). In this volume, Schneider and Werle demonstrate a significant expansion of the German telecommunications policy network in the course of roughly 100 years. Jansen, looking at a subsectoral network in German R&D policy, shows how a breakthrough in superconductivity research in the 80s altered the opportunity structure for research laboratories and federal policy makers alike and resulted in significant changes in the superconductivity policy network.

Where policy networks are empirically identified by observing which actors participate *de facto* in the controversy, consultation, and bargaining which precede a given policy decision, the focus is normally on sectoral or even issue-specific networks rather than on macro-political constellations such as the literature on neo-corporatism has focused on (Lehmbruch 1984). It is an interesting question, not addressed in this volume,

whether aside from the *analytical* distinction between comprehensive and sectoral policy networks there might be a *real* tendency toward sectoral disaggregation. Irrespective of such a trend we should, however, expect that network types differ between policy sectors - if indeed the structure of the target population (or regulatory field) affects the structure of sectoral policy networks. In this volume, it is especially the chapter by Laumann et al. which provides empirical evidence for such an expectation, as the authors compare size, composition, and cleavage structure of four policy sectors in the US.

Policy processes which crystallize about a single issue, or decision event, tend not to mobilize the full set of actors composing a sectoral policy network. It is again the research of Laumann et al. which provides convincing evidence for this. While roughly 80 different corporate actors make up each of the four sectoral policy networks studied, individual decision events activate only between 25 and 53 of them. Active participation is thus discontinuous rather than continuous. Moreover, the composition of the pro- and contra-coalitions is not stable over time, i.e. individual actors do not find themselves in one camp together with the same coalition partners each time they do participate. In spite of the existence of a more enduring *sectoral* pattern of relationships, issue-specific networks thus differ significantly from each other; the authors conclude that "... casual observers greatly exaggerate the degree of stability of participation, consensus and cleavage in policy making" (cf. Laumann et al. in this volume). The conclusion that issue networks in the same policy sector can differ substantially is confirmed by the contribution of Werle & Schneider. Looking more in detail at two policy networks within the German telecommunications domain which crystallized about two different issues, i.e. the introduction of a new service, and postal reform, they show how it is the (more technical and economic, or more political) nature of the issue which shapes the emerging networks.

Policy networks also differ between nations, if the sector is held constant. This is one of the results in the contribution by Pappi & Knoke, who compare labor policy networks in the US and Germany. While in this case, the reasons for the observed structural differences are not discussed at length, the causal question is at the core of Coleman's chapter. He shows how macropolitical institutions of the Westminster parliamentary vs. the US congressional type shape both the formal relationships and informal networks in the field of monetary policy.

The contributions in this volume do not only serve to show how policy networks differ in important respects. They also have accumulated evidence about the factors shaping the structure of policy networks, from the macropolitical institutional framework to the substantive content of issues. Evidence of the difference such structural differences make for policy is less rich and direct. Pappi & Knoke in their chapter do aim to explain labor policy decisions taken on specific issues, expecting them to be determined by the distribution of power and preferences, *mediated* by an exchange of control over policy sub-domains among the actors involved in the sectoral policy network; their research, however, is not yet sufficiently advanced to test this expectation. The chapter by Döhler, on the other hand, does offer a tentative empirical generalization. Comparing health policy networks in the US, Britain and Germany over time and looking at the extent to which neo-conservative reform policies have been successful in these countries he suggests that highly fragmented as well as highly centralized network structures have facilitated the formulation and implementation of neo-conservative programs. If, on the other hand, a sector is characterized by pronounced and legitimate self-government, it tends to resist a policy that would change its basic *modus operandi*. Important as these results are, and even considering the less explicit suggestions which several of the chapters contain by describing both specific substantive policies and the networks which generate them, it seems clear that there is much need here for future empirical testing.

This leads up to the final question to be raised by way of introduction, i.e. whether the contributions in this volume lend support to the expectation that a deliberate combination of (quantitative) network analysis and (qualitative) policy analysis offers the chance of cognitive advances in a difficult field. The reader will undoubtedly form his or her own judgment about this on the basis of the text, asking for instance such questions as: Could the structural differences between two issue networks which Schneider and Werle analyze quantitatively have been presented as convincingly and with as much detail if they had been content with a discursive description? Or: What would a quantitative analysis along the lines of Laumann et al. have added to Döhler's comparative study? The general answer we would give is that a *combined* qualitative and quantitative approach is obviously much more demanding in terms of research time and resources, but that it offers the chance of

greater precision, and of discovering both details and comprehensive patterns that would otherwise have remained invisible.

Quantification always promises formal accuracy. The transformation of qualitative structural notions to operational constructs forces us to spell out clearly the relevant variables, so clearly that measurement becomes possible. In the course of doing so, and through the application of the formal procedures developed to establish the values of the variables in a given empirical case, we come to recognize facets of reality which otherwise might have gone unnoticed, or at least would have remained implicit. Examples of this are the surprisingly *large size* of policy networks and the *fluidity of their boundary*; both became visible when formal procedures were employed to identify the actors belonging to, or making up a given policy network. Another insight favored by formal measurement concerns the *variability of issue networks* emerging within a given policy sector. True, this could have been, and in fact has been recognized in purely qualitative studies (e.g. Mayntz 1990: 298-301); but compared to a narrative account there is simply more proof in empirical evidence expressed in figures, i.e. the results acquire a higher reliability and are more convincing than other forms of reasoning.

On the other hand there is always the danger that the price of higher reliability has to be paid in terms of a lower validity when only quantitative methods are used. The very procedure of operationalizing concepts to make them amenable to measurement usually requires simplification by reduction. An example is the reduction of substantive policy preferences to a simple pro/contra dichotomy as Laumann et al. are using. Formal network analysis in general reduces the properties of actors to a few categories (in the extreme case: public/private) and their relations to a few types, such as information and resource exchange, or power differentials (normally: reputational power as aggregate measure). But these measurable structural properties may not be the most salient ones; the fine-grained details of the distribution of jurisdictions and of the procedural rules defining the nature of the interdependencies between given actors easily escape quantification. To what extent, for instance, would it have been possible to include in a formal, quantitative analysis the fine distinctions between the American and the Canadian monetary authorities and the pattern of relations between central bank, top executive, and competent ministries which Coleman describes?

If such are the advantages and the drawbacks of the utilization of formal network analysis in the study of policy networks, much seems

indeed to speak for the maxim already formulated, i.e. for the explicit attempt to *combine* both approaches.

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