

Chapter 11

Lateral Network Governance



Johannes Glückler

The Puzzle of Governing Networks

When firms organize themselves into interorganizational networks, they need to agree on common goals and a viable way of working with each other. How should networks be designed and governed to help partners achieve their common goals efficiently? This question is particularly salient for organizations that make an effort to surmount collective action dilemmas at the local level as well as across geographical scales to establish legitimate practices of cooperation and compliance in diverse contexts, such as in environmental (Bulkeley, 2005; Liverman, 2004; Scott, 2015) and regional governance (Feiock, 2007; MacLeod & Goodwin, 1999; Montero & Chapple, 2019), the governance of local commons (Hardin, 1968; Ostrom, 1999), and in new—often local—organizational arrangements of so-called diverse economies (Gibson-Graham, 2008) and alternative economic practices (Sánchez-Hernández & Glückler, 2019; Seyfang, 2006). Here, research on human geography, organization studies, the political, social, and environmental sciences, as well as network analysis intersects, with researchers working to conceive solutions for successful governance among diverse sets of actors. Although scholars have established an understanding of networks as an alternative mode of governance vis-à-vis markets and hierarchies (Powell, 1991; Williamson, 1985), little is known about how network organizations should actually be governed. More accurately, what is needed is an understanding of which forms of network governance are suitable in which contexts of interorganizational cooperation: “We are thus left with an understanding of why networks may be a superior mode of governance but not of how they are themselves governed” (Provan, Fish, & Sydow, 2007, p. 504).

J. Glückler (✉)

Department of Geography, Heidelberg University, Heidelberg, Germany
e-mail: glueckler@uni-heidelberg.de

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It is premature to call the field of inquiry into network governance¹ a coherent research framework (Ansell & Torfing, 2016; Glückler, Dehning, Janneck, & Armbrüster, 2012; Jung, Krebs, & Teubner, 2015; Keast, 2016; Maggetti & Gilardi, 2014; Prota, 2016), even more so because the term governance has been used rather broadly across the social sciences, such as in political science (Ansell & Gash, 2008; Crouch, 2005; Rhodes, 2007), institutional economics (Williamson, 2005), sociology (Podolny & Page, 1998; Powell, 1991; Rowley, Behrens, & Krackhardt, 2000), and human geography (Allen & Cochrane, 2007; Charron, Dijkstra, & Lapuente, 2014; Macleod & Goodwin, 1999). The dearth of concepts of and empirical insights into network governance stems primarily from the egalitarian aspirations of partners cooperating in lateral networks. For unlike so-called *strategic networks* (Sydow, Schübler, & Müller-Seitz, 2016) or vertically structured networks such as global value chains (Crang, Hughes, Gregson, Norris, & Ahamed, 2013; Gereffi, Humphrey, & Sturgeon, 2005; Glückler & Panitz, 2016; Grabs & Ponte, 2019) or global production networks (Coe, Dicken, & Hess, 2008; Levy, 2008; Yeung & Coe, 2015), in which governance functions are often assumed by a focal lead firm, lateral networks consist of members who see themselves as autonomous and equal to everyone else. Therefore, members of lateral networks are often wary of outside control: “[T]here is little empirically grounded work researching how organizations without permanent bosses and followers, in which all members ultimately have formally equal say in running operations or exercising control, are able to operate” (Lazega, 2001, p. 1).

In this article, I would like to advance the concept of lateral network governance in a specific empirical context of interorganizational networks that has received only limited attention in governance research: the organized network. An organized network is a voluntary and deliberate association of members that directs multilateral cooperation between a limited number of legally and economically independent organizations towards a shared economic goal (Glückler & Hammer, 2015). Expectations of autonomously exercising control in partnership with each other are either inconsistent with rigid decision-making hierarchies or impossible to meet, for weak governance cannot ensure compliance. This article centers on the paradox of having equals commit themselves to coordinating their actions. To solve this fundamental problem, I propose analyzing network governance as a structure for the legitimate delegation of decision-making. The lateral governance that arises through such transfer takes account of both the contextuality and the malleability of networks and allows one to give formal and informal governance mechanisms equal and simultaneous consideration. The structure for legitimate transfer of decision-making, as the empirical analysis will illustrate, builds the foundation for efficient and legitimate governance of organized networks.

In the first section, I propose a framework of four elements—context, object, mechanism, and agency of governance—that together account for the empirical variation in governance forms. In the second section, I build on the notion of relational distributions of legitimacy to develop the concept of lateral network

¹In this article, I use the term *network governance* as a superordinate term to include both *network control* and *network regulation*.

governance. It helps to identify legitimate agents of governance by capturing the delegation of discretionary authority among equals. In the third section, I develop a method for empirically assessing the legitimate transfer of decision-making authority by drawing on concepts from social network analysis. In the fourth section, I explore two organized networks of small and medium-sized enterprises (*SMEs*)—one in the area of management consulting, the other in dental technology—to empirically show how sharply the actually observed relational distribution of legitimacy can diverge from the formal governance structure. A concept of lateral network governance and the analysis of relational structures of legitimacy suggest a more holistic understanding of network governance that integrates formal positions, offices, and contracts with informal social relations of authority and legitimacy.

The Governance Challenge

One reason for the diversity of research on network governance is the large variation in empirical contexts and phenomena researchers usually study. A more general theory of network governance, therefore, requires consistent terminology and needs to capture the particular empirical context that distinguishes networks from hierarchical organizations such as corporations or bureaucracies. Forms of network governance vary according to at least four key elements that together constitute the complex of network governance: These are (i) the context of governance, that is, the conditions framing collaboration among actors; (ii) the object of governance, in other words, the common interest and goals of collaboration; (iii) the mechanisms of governance, such as contracts, power, trust, and so on; and (iv) the agency of governance, in other words, actors and bodies granted the authorization or legitimacy to exercise governance.

The Context of Governance: Network Cooperation

Generally, the process of governance is intended to reduce variance in an existing system and to exert more than just piecemeal influence on autonomous dynamics, events, and interactions (Sydow, 2000). When it comes to organized networks as defined above, some of the most important contextual factors are the expectations of legally independent and equal partners in a voluntary group (Staber, 2000). This is all the more germane in the context of horizontal networks, in which business firms operate at equal or similar stages of the value chain. Horizontal networks represent arenas for potential or actual competition between the members on their respective factor and commodity markets. Legal autonomy, potential competition, and mutual independence regarding each other's resources constitute a highly distinct context. This constellation of factors poses a great challenge to network governance as it precludes hierarchical

principles as control mechanisms (Lazega, 2000; Lazega & Krackhardt, 2000). The voluntary and autonomous basis of action makes it difficult to issue hierarchical directives, which the members *can* accept but by no means must. The same goes for sanctions. Even if it is contractually agreed that undesirable behavior in the network may be sanctioned, applying these formal sanctions may jeopardize the network insofar as members could leave it, an exit that could eventually destabilize it (Glückler & Hammer, 2017; Lazega, 2000). Voluntary membership is based on the benefit a person expects from it (Windeler, 2001). Network members tie the extension of their membership to their assessment of whether the benefits it bestows can outweigh its costs. The will to have a say is thus relatively high, and the network's objective must undergo constant discussion in which members build consensus. Ring and van de Ven (1994) argue that network members must develop a common, not an individual, concept of their motivation, their feasible investments, and the likely uncertainties—a process typical of the negotiations stage in maturity models of network evolution. Although empirical studies do not necessarily substantiate the validity of such a maturity model (Melot de Beauregard, Németh, & Glückler, 2012), negotiation of consensus on objectives and governance have an important bearing on the understanding of the network.

The Object of Governance

The second element of network governance is the object to be collectively governed. In their review of the literature, Park and Ungson (2001) conclude that cooperation is more likely to fail than to succeed in the long run. Accordingly, they are interested in the factors leading to a network's breakdown and failure, not in those facilitating successful group cooperation. By calling attention to the "don'ts" more than the "musts", the reasoning that these two scholars pursue in their conceptual model considerably enriches the literature. They confine their discussion to bilateral alliances, but it is both eminently possible and helpful to apply their arguments to multilateral networks. Park and Ungson (2001) see the main challenge of cooperation as lying in the rivalry between the participating partners and in the complexity of what is to be governed amid the uncertainties and vagueness of the management strategies involved. For them, the most important objects of network governance are the controlling (the monitoring of costs and benefits accruing from interfirm cooperation), the balancing of interests, and the coping with dissimilar management styles of the member firms. Governance is hampered by the necessity of minimizing its costs so as to avoid eating into either the savings or the gains of cooperation (Park & Ungson, 2001). Sydow (2000) and Windeler (2001) discriminate more precisely between the objects of governance in the context of what they call network regulation. Focusing on the modalities of the governance framework for conducting business within networks, they delineate six objects: selection, allocation, evaluation, systems integration, position configuration, and boundary-setting. This

framework represents a detailed typology of the range of governance objects in network governance. Its authors focus particularly on the selection of members and the delimitation of the network vis-à-vis its environment; the allocation of resources and the distribution of benefits; the definition of common goals, process control, and the evaluation of their achievement. Network regulation is thus geared to various strategic and operational matters, and its total cost must never exceed the savings or benefit that the network partners reap from their cooperation. So-called network coordinators are in charge of network regulation, and their legitimacy entitles them to act on behalf of the network.

The Mechanisms of Governance

The third element of a network governance framework is the mechanisms through which the objects of governance are actually achieved in a context of collective action. Conventionally, scholars distinguish two types of mechanisms: Whereas formal regulations stipulate nominal bodies and offices for the persons enforcing them, informal control mechanisms are rooted in social institutions such as trust, reciprocity, or reputation (Glückler, Suddaby, & Lenz, 2018). Informal governance is conceived of as socially practiced governance, in which social mechanisms such as power, trust, sympathy, and the exercise of influence are regarded as primary instruments of control. This perspective rests on voluntary integration, which predicates at least some degree of familiarity among the partners in the network. In this case, control of the network is assumed by actors whose legitimacy for this function originates not in formal, legal offices but rather in social practice. Social mechanisms such as trust, reputation, conventions, and the formation of a macro or network culture, predominate as forms of coordination in networks and guide the economic behavior of the actors (Glückler & Armbrüster, 2003; Jones, Hesterly, & Borgatti, 1997; Keast, 2016). In addition, Bachmann (2001) notes the relevance of power and trust as controlling mechanisms capable of affecting each other and of coordinating the actions at various levels of a network.

Researchers studying formal governance usually focus on justiciable rules and contracts on which network members agree in writing. Cooperation agreements and association statutes are examples. Formal rules lay down what rights, obligations, and sanctions are applicable in the network. They vary depending on the objectives and context of the network in question and range from rather loose articles of association—for instance, among medical practices to improve local health service delivery—to binding legal contracts in a joint-venture network. Drawing on the concept of state, Schäfer (2009) refers to a formal regulatory system within networks as a *network constitution*. Organizations, too, have their own regulations that describe the basic legal structure of their corporate governance. Although these instances of corporate governance can help regulate bilateral collaboration between an organization and its partner, they are not efficacious to rule an organized network as a whole and beyond the focal interest of one corporation. This is where network

governance is necessary to close the gap between individual (corporate) and collective levels of collaboration. Schäfer intends to mitigate the problem of collective action by creating a legitimate entity capable of enforcing the rules agreed upon. The formal governance design of a network thus enhances its problem-solving capacity.

This conclusion underscores the need for research on the question of how organized networks can acquire legitimacy and clout. Unfortunately, researchers have so far studied formal and informal control mechanisms separately or have even distinguished between them as mechanisms typical of different maturity levels. According to maturity models of network governance, young and relatively small networks are characterized by informal governance mechanisms, whereas mature and larger networks draw on formal mechanisms such as contracts, organs, and nominal management authorities (Provan & Kenis, 2008; Ring & van de Ven, 1994). As Provan et al. (2007) observe, “relationships between organizations in a network are either informally maintained, through the structure of the network and norms of reciprocity and trust, or formally maintained, through the existence of contracts, rules and regulations” (p. 503). Rather than juxtaposing formal and informal mechanisms as a dualism, I conceive relational structures of legitimacy to include the simultaneity and duality of formal and informal sources of lateral governance.

The Agency of Governance

The fourth and final element of network governance refers to the locus of control and the organizational entities imbued with legitimate authority to rule. Provan and his colleagues propose a typology of governance forms based on where the formal agency of governance is located (Provan et al., 2007; Provan & Kenis, 2008; Provan & Milward, 1995). They distinguish self-governance by the members from external governance by a network administration organization (NAO). Self-governance can also be exercised centrally by a mandated representative of the network (an arrangement called *lead-organization governance*) or decentrally through mutual coordination by many or all of the members (*shared governance*). This decentralized form of self-governance (also called a *lateral control regime*) is encountered in law offices, consulting firms, and other partnerships (Lazega, 2000, 2001; Lazega & Krackhardt, 2000). The combination of these two dichotomies—self-governance versus external governance and lead-organization versus shared governance—is the basis for three, albeit not pure and exclusive, forms of governance. Provan and Kenis (2008) point out that an NAO can exist in both shared governance and in lead-organization governance. Moreover, they suggest that network performance depends on the suitable choice of each form of governance in particular conditions, such as network size, the existence of trust and skills, and the degree of goal consensus among the members. While self-governance is suitable for small networks with bedrock trust among its members, expanding membership and growing network competence may require a transition to the other two forms of governance. Other authors, including Ring and

van de Ven (1994), likewise attribute to networks a dynamic trajectory along which interactions per se and their quality change. Apart from the useful distinction of these governance forms, the model's authors are rather vague about the sources of authority to exert control. Although Provan and Kenis (2008) focus on the networks' formal design, any governance authority must be acknowledged as legitimate and representative by the other members to have the sway to coordinate a network effectively (Windeler, 2001). Such legitimacy is pivotal to the development of the theory of lateral governance in the next section. Few studies' authors have delved into the special significance that the inception of legitimacy has for the success of a network.

Lateral Network Governance

The Logic of Negotiation and the Regime of Lateral Control

So far, the literature's authors have set out from an isolated consideration of formal and informal governance mechanisms, without looking much at their empirical interdependence. Such dualism obscures the fact that organizations actually exploit both dimensions of network governance (Lazega, 2000). Forms of governance such as centralized network control (lead-organization governance) can operate formally and informally alike. Conversely, forms of contractually shared and informal governance are conceivable. In practice, there are forms of governance that cannot be called either purely informal or formal. For instance, an honor code, which in many corporate networks is agreed upon in writing, is not informal but is not readily actionable in legal terms. The empirical parallelism and interdependence of formal and informal forms of coordination therefore call for an alternative conception of network governance—one in which the two dimensions are not isolated but integrated by an encompassing principle based on the legitimacy of influence and control. This is the objective guiding the concept of lateral governance.

Lazega (2001) has focused on the parallel existence of formal and informal control mechanisms in law firms of equal partners. This organizational context is similar to the governance context of organized networks, which is of key interest in this article. Equity partners of a law firm as well as business firms associated as partners in an organized network all have equal legal standing and responsibility for the common outcome. In his empirical study, Lazega (2001) found that in cases of conflict the partners of a law firm tended to avoid formal intervention in order to limit the risk of open confrontation or escalation. At the same time, however, they tried to minimize the costs of informal governance. A lateral control regime thereby emerges at the collective level (Lazega & Krackhardt, 2000), so formal mechanisms such as official meetings are definitely used as arenas of informal micropolitics. Although the strategic orientation in this context is shaped by the consensus of all the participants, micropolitical and, hence, informal strategies figure strongly in forging that consensus. Based on their status, prestige and trust, a particular type of actors, the

so-called oligarchs, figure prominently in facilitating the emergence of the consensus. As a consequence, the network's strategic questions are discussed by everyone involved but informally shaped by a few (Lazega, 2001). This insight appreciably advances our understanding of the interdependence of formal and informal processes of network governance. They are "scarcely possible to determine or plan from the outset, not least because of the loose coupling of the system's elements, and are instead always outcomes of (partly) autonomous processes that the initiator intentionally triggers but cannot totally control" (Sydow, 2002, p. 248).

An alternative access to conceiving an inclusive mechanism of network governance is found in the dominant logic of action. Equality before the law and the principle of voluntariness ordain that all members be regarded as equally warranted decision-makers (Lazega, 2000; Mayntz, 1993). Moreover, all decisions are to be made to the satisfaction of the network actors so as to preclude the departure of any member who feels disadvantaged against his or her will and to preserve goal consensus. Writing from the perspective of actor-centered institutionalism in political science, Mayntz and Scharpf (1995) posit that negotiation is the logic of action in these situations. They see the superiority of negotiation in the fact that pure exchange leads to unintentional negative aggregate effects and that hierarchical control breaks down anyway because the members expect to have a voice in decisions. The logic of negotiation predicates the interest in a joint result and facilitates agreement that accommodates the wishes of all network members. Whereas the principle is definitely practicable and has proven in game theory to be effective in small networks, goal consensus and decision-making become ever more difficult as group size increases (Scharpf, 2006). The effectiveness and efficiency of decision-making are not all that suffers in large groups. There is also the growing danger that minorities will be outvoted and that the cohesion will diminish. In line with Provan and Kenis (2008), hence, shared governance becomes problematic beyond a certain network size (Mayntz, 1993).

The Concept of Lateral Network Governance

How, then, can legitimate governance of relatively large networks be achieved? To answer the question, it is useful to look at other realms of society that face similar problems. Perhaps the most instructive case is the discussion of democratic systems in political theory. In democracies, which by definition comprise no hierarchical directives, decisions must be taken among independent peers, just as in networks. To make collective decisions feasible, the solutions vary on a continuum between symmetric and asymmetric ways to forge agreement. In symmetrical approaches, each individual's vote has equal weight in the group decision, whereas in asymmetrical approaches, discretionary authority is transferred to one or a few representatives to make binding decisions for everyone. Between these two extremes can lie schemes that define specific majorities, each arrangement having its merits and drawbacks. Whereas asymmetrical procedures offer the advantage of quick

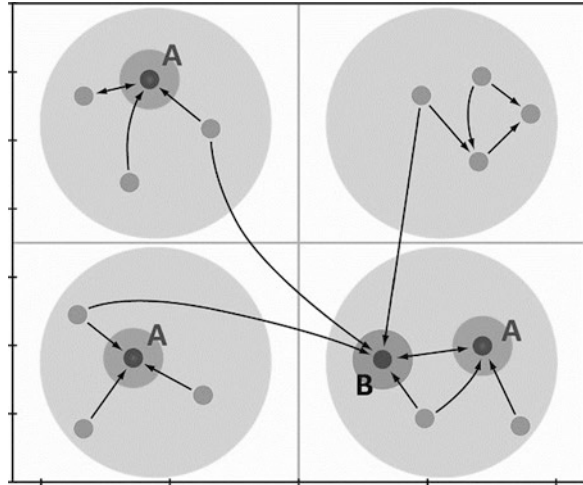
decision-making, they suffer from the danger of minority boycott. Conversely, symmetrical procedures hold the promise of consensus-based decisions, but the necessary negotiations referred to by Mayntz (1993) can drag on and on. To solve this dilemma, democratic systems delegate decision-making power, concentrating it in a small group of individuals who represent the interests of their electorate and enjoy authorization to negotiate decisions applying to everyone. Decisions can thereby be taken legitimately and efficiently by a small number of people. For all the dissimilarities between a public bureaucratic system and privately organized networks, the principle of delegating power offers a promising point of departure for responding to the question of dealing with governance issues in networks.

I assume that successful coordination in organized networks is based on the principle of delegating decision-making power. Such delegation is a prerequisite and principal origin of the concept of lateral network governance, in which all members legitimately share. The perspective of lateral network governance can be situated within the four elements of the governance framework explained above. First, it does justice to a context of governance in which the members have an equal right to participate. Second, it can be applied to any object of governance within a network that pursues common goals or collective goods. Third, lateral governance is based on a form of legitimation that can be both formally and informally rooted, and these two mechanisms can be integrated and simultaneously observed. Concentrating on the intensity and sharing of legitimacy in a network overcomes the dualism of formal and informal network governance both theoretically and empirically. Such a perspective is supported by Human and Provan (2000), who also stress the importance of the legitimacy of actors, actions, and structures, without separating their causes into informal and formal aspects. In addition, Weber (1978) also points out that legitimacy can come from informal practice such as tradition, feelings, or values as well as from formally accepted systems of legality. Therefore, I here adopt an approach with which I refrain from discriminating between formal and informal sources of legitimacy and aim to assess the relational distribution of legitimacy across the agents of governance within an organized network. Fourth, and consequently, the agent of governance is explicable not in terms of formal or informal facets but rather in the degree of its legitimacy. Delegating legitimate decision-making power therefore theoretically satisfies both demands of network governance elaborated above: coordination based on a partnership of equals and the minimization of transaction costs.

Locally and Globally Legitimate Agents of Governance

Legitimate delegation of decision-making can be distributed across the network's various interest groups. Depending on the relational structure of clusters of interests, subgroups might emerge that jointly grant themselves legitimate representation of their interests and might, in their mutuality, clearly set themselves apart from other subgroups. These subgroups structure the network into what I call legitimate

Fig. 11.1 Hypothetical network of the legitimate transfer of decision-making authority. Source: Design by author



factions. Figure 11.1 depicts a hypothetical distribution describing the transfer of legitimate decision-making authority between the members of a network. In this model, four members each have at least three votes from the network and possess the greatest legitimacy as measured by the number of times he or she has been named. However, member types A and B differ in the structure of those votes. The votes for type A all come from one local faction; those for type B, from all factions of the network. Whereas type A members are locally legitimate, type B members are globally legitimate. With this example, I illustrate the import that the specific structure of legitimacy has when comparable degrees of legitimacy are conferred on individual members of a network by their colleagues. If a member receives many votes yet exclusively from one faction (type A), then that person has local legitimacy. By contrast, global legitimacy enables a member to contribute much more to decisions acceptable throughout the network. As far as a network logic of action is concerned, the actors enjoying that kind of legitimacy (type B) can enter into negotiations and thereby make collective decisions more readily than the entire network can. Of course, whether type B actors succeed in achieving consent ultimately depends on the severity of conflict between the factions (as maintained by their type A representatives) and type B's legitimacy and ability to mediate their interests and eventually reconcile their conflict.²

Efficient network governance depends on a particular distribution of legitimacy in the network. Relational distributions of legitimate decision-making power vary with the strength and fragmentation of delegated decision-making power. An

²Type A actors exclusively represent the interests of their own factions and will thus enter into negotiation with a clear stake. In contrast, as actors of type B draw legitimacy from several factions, they may run the risk of losing part or all of that legitimacy in cases of conflict if the individual factions feel that their interests are not sufficiently supported. Therefore, a type B position per se is not a sufficient condition to solve conflicts within a network.

empirical analysis of governance structures thus centers on the following research questions: First, and methodologically, how can relational structures of legitimacy be assessed? Second, and empirically, how do observed patterns of legitimate governance relations (the empirical distribution of legitimacy) overlap with or diverge from the formal governance structures in an organized network? Third, and effectively, how does an empirical distribution of legitimate delegation of authority affect the network outcome? I will address these questions in a comparative case study of two organized networks of small and medium-sized business firms in Germany.

Research Design

Two Organized Networks: Management Consulting and Dental Technology

My first case study was on ConsultingNet,³ a regional network of 23 management consultants that operated primarily to promote the professional exchange between its members by means of regular events and get-togethers. ConsultingNet was a registered association whose governance structure was written into its statutes (Table 11.1). The management board consisted of two members and was responsible for the management of the network activities. The association's limit on the term of office and the election of the two members during the annual general meeting arguably render the board a rather weak formal agent of governance. Despite the rules laid down in such documents, there was, legally speaking, relatively little provision made for clout and division of labor in an association, especially if, as in this instance, no recourse to sanctions had been worked out. A member who would break the code of conduct could be expelled from the association, but other, less drastic ways and means to sanction behavior had not been formalized. The governance model within ConsultingNet therefore corresponded closest to the model of shared governance (Provan & Kenis, 2008).

My second case study was on Dentis,⁴ a network of 27 small and medium-sized dental laboratories located across Germany. Dentis was a limited liability company

Table 11.1 Formal governance of two corporate networks

Elements	ConsultingNet	Dentis
Legal form	Registered association	Limited liability
Control mechanism	Management board	NAO,* supervisory board
Electorate	General assembly of members	Shareholders' meeting
Form of governance	Shared governance	Shared governance, NAO

Note. *Network administration organization. Source: Design by author

³ ConsultingNet is a pseudonym.

⁴ Dentis is a pseudonym.

whose charter stipulates the election of five company representatives to the supervisory board at the shareholders' meeting (Table 11.1). Responsibility for the network's operations falls to a management office, which functions as an NAO (Human & Provan, 2000). Because of the member firms' geographic separation and the different, in some cases intense, multilateral cooperation between them, the network held quarterly shareholder meetings, at which the managing director, the members of the supervisory board, and the shareholders negotiate, decide on, and evaluate joint activities. High membership dues for individuals and the remarkable amount of work and time invested characterize Dentis as a very active and long-term network. The objectives of Dentis were to achieve networked production and joint development of new concepts and solutions in marketing, distribution, IT, quality standards, training, and other areas. Its governance structure typifies shared governance with a jointly operated NAO (Provan & Kenis, 2008).

I researched both organized networks according to the research procedure SONA—situational organizational network analysis (Glückler & Hammer, 2015; Glückler, Panitz, & Hammer, 2020)—and evaluated them for an extended period. SONA includes qualitative observation during personal and group interviews as well as quantitative data gathered with a standardized network survey and evaluated with methods of social network analysis. I have based the following analysis of governance structure on numerous interviews and, for each network, a survey covering more than 70% of the members (see Table 11.2).

The two networks fit into the foregoing classification of network governance. The context was the same for both. Of course, the market situation varies from one member firm to the next because each firm is affiliated with a different economic sector, but in both networks firms that were at least potential rivals had banded together to improve their competitiveness. The member firms in the two networks were legally autonomous and economically independent from each other. Regarding the object of governance, the divergence between the networks was greater because of what they did. Whereas ConsultingNet engaged in rather soft activities that were not capital intensive for its members (e.g., events), Dentis pursued more ambitious goals of collectively developing and investing in networked production and joint marketing and sales strategies. The ensuing complexity of governance in that network was evident from its use of an NAO. The networks also had similar governance mechanisms and agents of governance. Their regulations were formal, as were the concomitant formal authorities of governance. In both networks, however,

Table 11.2 SONA: mixed method research design and database

Instrument	ConsultingNet	Dentis
Preliminary discussion	1	1
Number of personal interviews	4	5
Network Survey response (rate)	19 (82.6%)	20 (74%)
Group discussion (validation)	1	1
Number of network members	23	27

Note. Source: Design by author

the personal interviews indicated awareness of a parallel dimension of control that was not formally regulated, one without which neither network would have been feasible.

Methodology: Measuring the Legitimate Delegation of Decision-Making Authority

Through preliminary discussions as well as the personal interviews with members of the two networks, I learned that the networks' governance was repeatedly linked with critical decision-making situations at the network level. For purposes of empirical observation, the delegation of decision-making power between the members of an organized network was operationalized with the following question item:

Imagine that an important decision has to be taken in the network and that you cannot take part in it. What other network members would have to be present when the decision is made so that you could accept the outcome?

This question item facilitates an independent measurement of each actor's legitimacy as an agent of governance, for the multilateral assessment of a member by others cannot be affected by that member at the time of the survey. Although hypothetical questions are more disputable than questions intended to reconstruct actual events, the instructive studies by Lazega (2000, 2001), for example, prove that hypothetical questions can indeed capture valid subjective representations of social structures of influence. With a network survey, I could thus collect the complete structure of all votes on the delegation of authority to make decisions. To characterize the resulting distribution of legitimacy, two parameters are important: the strength and the structure of legitimacy within the network.

Strength. The strength of legitimacy is measured by the indegree. The indegree d_i of a member n is the number of the votes (mentions), v that a member receives from the other members j so that he or her can participate in decisions as the legitimate representative in their absence: $d_i(n_i) = \sum_j v_{ij}$. The maximal indegree for each network of size N is $n - 1$.

Structure. The structural dimension refers to the specific distribution of the delegation of decision-making authority. Strong legitimacy can rest on votes from a unitary faction or in votes from members from various factions. To discover the specific distribution of decision-making delegations, I use the external-internal (*E-I*) index (Krackhardt & Stern, 1988). It measures the ratio of legitimacy relations across factions (external legitimacy, or EL) to legitimacy relations within factions (internal legitimacy, or IL). The *E-I* index is calculated as follows: $E-I = (EL - IL) \div (EL + IL)$. However, because the *E-I* can be calculated only in symmetrical networks, the direction of the vote between the members cannot be dispensed with. The *E-I* thus does not reveal whether a transfer of decision-making authority goes from A to B or rather from B to A. It calculates only the extent to which each member is involved in internal or external factional relations of legitimacy. Theoretically, the

$E-I$ varies between -1 (solely internal factional relations) and $+1$ (solely external factional relations).⁵

I then use the strength and structure of the legitimacy distribution as dimensions of a model of lateral network governance. Together, they yield a matrix with four quadrants subdivided by the median value of the indegree and the null value of the $E-I$ index. The model permits the formal definition of three types of an actor's legitimacy (see Fig. 11.2):

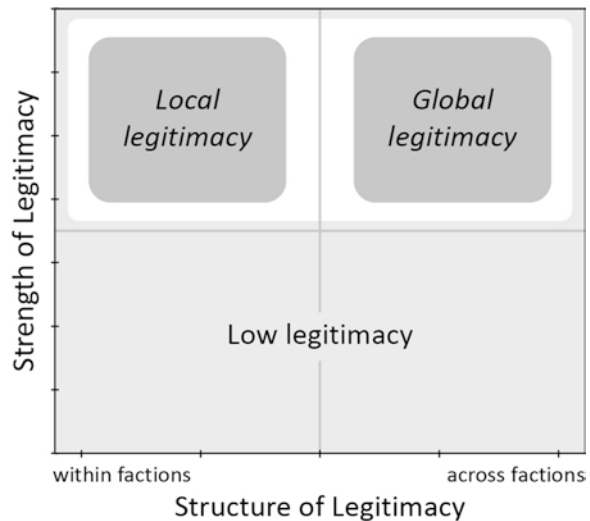
Low legitimacy. Members with below-average indegree are less likely than members with above-average indegree to gain sufficient acceptance of their decisions in the network.

Local legitimacy. Members in the upper-left quadrant have above-average legitimacy, but it comes mostly from their own faction. Like the head of a faction, they can gain acceptance for decisions within their factions.

Global legitimacy. Members in the upper-right quadrant have above-average legitimacy stemming from various factions. Speaking on behalf of several factions, these members have the greatest opportunity to win the acceptance of decisions in the entire network.

Consequently, the point of empirically analyzing the structure of legitimacy distribution in the ConsultingNet and Dentis networks is to ascertain how much that structure corresponds to the formal model of governance and how much it creates overall legitimacy.

Fig. 11.2 Model of lateral governance: legitimate delegation of decision-making authority. Source: Design by author



⁵ $E-I$ values approaching $+1$ are unrealistic because the prior factional analysis of the legitimacy network classifies members into coherent network-based factions. Factional affiliation therefore makes the tendency toward factional internal relations likely.

Empirical Structures of Lateral Network Governance

Planned Versus Practiced Governance

Because of the democratic principle of delegating decision-making authority, the formally planned governance structure need not match the actual distribution of legitimacy in the network. Formal positions such as those of managing director or management board member, and formal bodies such as the advisory or supervisory board, set forth responsibilities and decision-making authority, but they do not preclude the legitimacy of other network members. Some members can be seen as important (legitimate) for certain decisions in the network even though they do not hold an office legally granting decision-making authority. Instead, other members' initiative and influence on the decision-making process can even be expected or required.

To test this conjecture, I compared the formally planned and the actually practiced forms of network governance. Figure 11.3 juxtaposes the ideal-type diagram of formal governance with the empirically documented distributions of legitimacy. The structure of legitimacy distribution in the two networks is depicted by nodes representing the members of the respective networks and by edges representing the individual relations between the surveyed members involved in the delegation of legitimate decision-making authority.

In both case studies, there is only moderate statistical relation between planned and practiced governance (with coefficients of 0.18 in the case of ConsultingNet and 0.23 in the case of Dentis). I could thus confirm the expectation and, from the

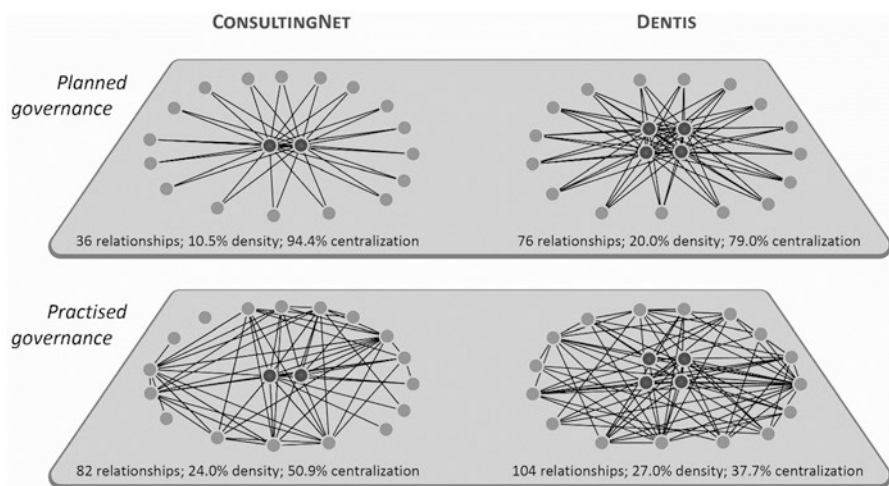


Fig. 11.3 A comparison between planned and practiced governance in two networks. Grey nodes = network members; black nodes = network members on the board of directors. Source: Design by author

networks' perspective, the hope that the planned structure of governance is contained within the actual distribution of legitimacy: Formal offices are held by legitimate actors. However, the actual distribution of legitimacy strays from the planned structure in notable ways, as revealed by the two parameters with which I measure this facet of the networks—density and centralization. With the network's density, I learn the percentage of theoretically possible votes that were received. With centralization, I gauge the network's tendency to concentrate all delegation relations on only one actor. Unanimity—100% centralization—would register as a perfect star. If delegation relations were completely distributed between the members, centralization would be 0. With my analysis, I learned that practiced governance in both networks is distributed across many more members than was formally planned. The structures that were actually used had greater density than foreseen, and the degree to which power was delegated was less centralized.

Thus, the actual number of actors legitimately positioned to affect the process of making acceptable decisions substantially exceeds the stipulated number. The low degree of centralization with governance as actually practiced reflects the tendency of lateral governance not to reduce to the formal agents of governance. By virtue of social legitimacy, informal members also figure in governance as practiced in the networks, becoming part of the de facto agent of network governance. The modeling of a formal governance structure does not capture the reality of network governance. Focusing on formal membership in executive boards alone can thus quickly prove inadequate. Legitimate members could feel disregarded or could later contest decisions that have been taken.

Local Versus Global Legitimacy: Structures for the Delegation of Decision-Making Authority

In the first part of my analysis, I revealed the divergence between the practiced and planned governance in lateral networks. However, the concept of lateral network governance makes for an even more discerning evaluation of the express structures of the distribution of legitimacy. In this section, I use the model of lateral network governance developed above, which makes it possible to set up a matrix in which the legitimacy is plotted for every network member according to strength (indegree) and structure (*E-I* index). With this matrix, I can single out three roles of legitimacy: low, local, and global. The role of low legitimacy is characterized by the marginal degree of legitimacy conferred by the network partners (see Fig. 11.4, bottom left and right quadrants). Low legitimacy is registered as a below-average indegree ($d_i(n_i) < d_i$), which reflects the number of times an actor in the network is named by other members.

All members with above-average legitimacy are represented in the upper quadrants of the matrix and are the analytical agent of governance. They are highly relevant to governance but differ—some of them considerably—in their position

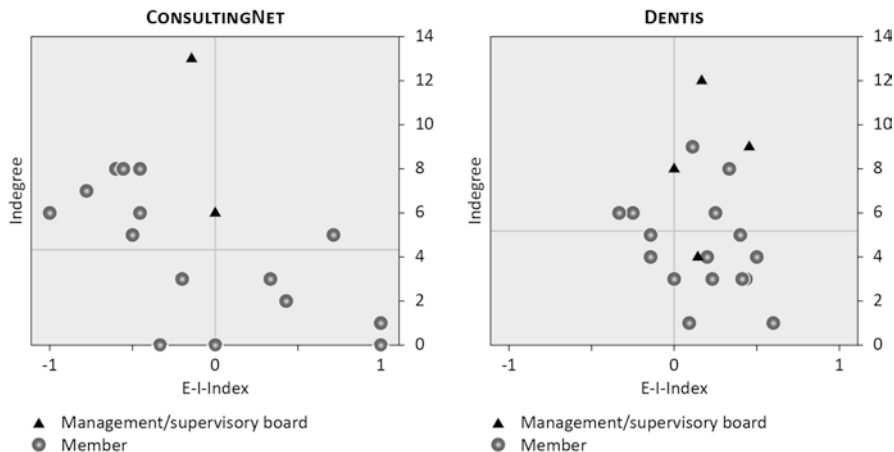


Fig. 11.4 Empirical distribution of legitimacy in the matrix of lateral network governance. Source: Design by author

within the distributive structure through which legitimate decision-making authority is bestowed. The second role of legitimacy—the local—appears in the upper left quadrants (Fig. 11.4). Its above-average legitimacy is granted by a more or less unitary subgroup describable as a faction because it has an E-I smaller than zero in each instance. By contrast, the third role of legitimacy, the global, appears in the upper right quadrant (Fig. 11.4). It is characterized by an E-I greater than zero, has its legitimacy from the network as a whole, that is, primarily from outside a unitary faction. Members with local legitimacy, such as in ConsultingNet, advocate decisions for a homogenous part of the network, with those decisions not necessarily enjoying support throughout the network. Members with global legitimacy, however, unite above-average and network-wide acceptance by the other members and have a greater likelihood of being able to work toward decisions that are more capable of building consensus and winning acceptance than would otherwise be the case. Such members serve as representatives of the network as a whole, such as in the Dentis network.

With Fig. 11.4, I illustrate the distribution of members in the matrix for both networks. The empirical models suggest three important insights. First, both networks have an agent of governance not adequately represented by their formal offices. In both networks, above-average decision-making authority is delegated to a handful of members whose legitimacy is considerably more than purely formal. In ConsultingNet, in addition to the two board members formally elected, seven more members were named as legitimate representatives. In Dentis, another four were found as equally legitimate as the four formal board members. Second, the place that the formal offices occupy in both networks is evident. Although there are significant similarities between the planned and the actually practiced structures of legitimation, both networks had numerous other members with above-average legitimacy. The identified agent of lateral network governance therefore delineates the

actual governance structure and complements the work of the supervisory board. Third, ConsultingNet and Dentis differed considerably in the composition of the two governance roles. ConsultingNet members with above-average legitimacy derived their acceptance almost exclusively from a local faction, not from the overall network. In contrast, the distribution of legitimacy in Dentis comprised many members with above-average, network-wide legitimacy and who could therefore gain acceptance in the network much more easily than the prominent members of ConsultingNet with only local legitimacy. Notably, ConsultingNet nosedived at the time the survey data was analyzed, whereas Dentis continued investing in professionalization. Giving reasons for the problems cited in the case study on ConsultingNet, its members described matters affecting the entire network that had brought on a torrent of objections. Apparently, the legitimacy of the responsible decision-makers had thus only been partial or insufficient. A large share of network members had meanwhile left it. Dentis, by contrast, had no serious trouble with its governability and ability to take action and has continued to successfully pursue its common goals.

Conclusion

In this article I have elaborated on a theory of lateral network governance, with which I conceptually surmount the divide between formal and informal governance by focusing on the relational distribution of the legitimacy to rule and control in a governance agreement among equals. With this concept of *lateral network governance* I seek to reconcile the voluntary nature of network membership and the expectation of nonhierarchical cooperation on the one hand with an interest in effective agents of governance and compliance with its normative and procedural standards on the other. For this vision of lateral network governance I am drawing on the culture of democratic decision-making, in which the smallest possible, sufficiently representative group of delegates negotiates consensus-based decisions that meet with network-wide acceptance and promote long-term consensus on objectives and identification. Although I have focused predominantly on legitimacy in this article, future research should further explore the role of power in such governance arrangements. The nexus to concepts of power constitutes a promising link between economic geography and political geography (Allen, 2011; Allen & Cochrane, 2007; Grabs & Ponte, 2019; Griffin, 2012).

Methodologically, I have drawn on methods of social network analysis to turn this concept into empirical practice. While network methods have become increasingly recognized and used in human geography (Giuliani, 2007; Glückler, 2007; ter Wal & Boschma, 2009), network researchers have simultaneously acknowledged the role of space and place in real social networks (Doreian & Conti, 2012). Future research on local and network governance will benefit from further cross-fertilization between network studies and geography, for instance, by adopting positional,

dynamic, and multi-level approaches (Glückler & Doreian, 2016; Glückler, Lazega, & Hammer, 2017; Lazega & Snijders, 2016).

Empirically, my analysis of two case studies reveals that concentrating solely on the formal structure of governance while neglecting the invisible spheres of actually practiced governance can lead to conflicts and mounting resistance in network collaboration. Instead, the analysis of the relational distribution of legitimacy helps actors examine and, if necessary, adapt network governance by identifying the most legitimate actors and discriminating the locus—local or global—of their legitimacy for governance.

A theory of lateral network governance does not imply static architectures of organization but serves as a compass guiding daily network governance. The actual design of a governance structure depends not only on the four building blocks—context, object, mechanism, and agency of governance—but also on its geographical and institutional context in order to convey appropriate, legitimate, and effective practice of network governance.

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