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The nature of orchestrational work

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ABSTRACT

This study presents results of a systematic participatory observation of daily activities of managers in inter-collaborative settings in the tradition of the *Work Activity School*. It is based on data collection among nine public managers who are active in networks/chains in the fields of public safety and health care in the Netherlands. The results demonstrate that a large part of the activities of managers still fall in the traditional managerial roles as identified by Mintzberg in his seminal study "*The Nature of Managerial Work*". Yet, findings also show that there is a substantial part which can be subsumed under a new role, which we call *orchestrational work*.

KEYWORDS Network management; orchestration; collaborative governance; managerial roles

Introduction

In practice and the academic literature, Collaborative Public Management (Agranoff and McGuire 2003; McGuire 2006; Mandell 2001) has received considerable attention be it in network governance (Provan and Kenis 2008), collaborative governance (Huxham and Vangen 2005) or network management (Agranoff 2003; Milward and Provan 2006; McGuire 2002). This increased attention is a reaction to the fact that public tasks increasingly have to be tackled and public services jointly be delivered by a multitude of public actors, possibly even in collaboration or cooperation with private or non-profit actors. In the literature, it is also widely argued that the tasks of public managers have evolved from the 'old POSDCORB' to a 'new' paradigm of collaborative management (Agranoff 2003, 2006). Numerous studies have been done to identify these new tasks and reveal which competences and skills public managers should ideally have nowadays. Consequently, scholars have developed different typologies of collaborative managerial tasks and activities (Agranoff 2003; Milward and Provan 2006; McGuire and Agranoff 2001; O'Leary, Choi, and Gerard 2012; Paquin and Howard-Grenville 2013). However, studies that systematically collect data concerning the daily collaborative tasks of public managers are relatively scarce and the existing ones mostly rely on interviews or self-reports by public managers. This study attempts to fill this gap and presents results of a systematic participatory observation of nine public managers who were active in networks/chains in the fields of public safety and health care in the Netherlands. Such

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observations can then contribute to our understanding how the ‘new’ collaborative management tasks relate to the more traditional POSDCORB tasks and activities.

In this study, we apply Mintzberg’s (1973) original framework on the nature of managerial work to identify and code the different managerial roles that were observed. Mintzberg led the way in discovering the nature of managerial work and set the standard of what was to be *the new all-embracing definition of the work of a manager*. When he wrote his book, mainstream organizations were dominantly organized in a vertical way with relatively few outside contacts. This gives rise to the question to what extent new managerial roles can be identified given the shift towards more collaborative (public) management. This study therefore enriches and compliments the current discussion on network management with the general perspective on management as initiated by Mintzberg.

The findings of this study demonstrate that a large part of the activities, even of managers that actively engage in network management, still fall in the traditional 10 managerial roles that Mintzberg originally identified. On the other hand, there is also a substantial part that can be subsumed under a new 11th role. We call this role *orchestration* (Busquets 2010; Hinterhuber 2002) and present the different tasks that are part of this role. This study emphasizes the inter-organizational aspect of management. The focus of this study lies therefore on the orchestrators which perform their work from an *inter-organizational* and not from an intra-organizational starting point.

Theory: managerial and orchestrational work

What is a manager?

Throughout the years, various studies were published on the nature of managerial work (Tenglad 2006; Mintzberg 1973, 1994, 1997; Kurke and Aldrich 1983) in which the manager is appointed as a person who is always very busy, physically and mentally, frequently interrupted, and has little control over his actions (Kurke and Aldrich 1983). The great complexity of managerial work requires the occupation of several different roles, other than just ‘leading’ (Mintzberg 1973; Tenglad 2006, 1441). Mintzberg (1973) describes that a manager should be able to work with peers, resolve conflicts, process information, make decisions under pressure of ambiguity and allocate resources properly. A manager also should possess entrepreneurship, leadership and the ability of introspection. According to Mintzberg, a manager can have 10 roles, divided among the three overarching categories – *interpersonal*, *informational* and *decisional*. These roles can be performed with differing emphasis, depending much on the functional area of the manager (Resteigne and Soeters 2009).

The managerial activities by which the development of interpersonal relationships is of unmistakable importance are described in the *interpersonal roles* of a manager (Mintzberg 1973). Some of these activities include ceremonial work, requests to subordinate employees for following up work or replies to inconsistent requests received because of the status of the manager. Roles as *figurehead* (ceremonial tasks), *leader* (most significant managerial role) and *liaison* (trader and negotiator with others outside the organization in the interest of the own organization) are in the nature of a person (interpersonal). Although Mintzberg describes the liaison role

from an intra-organizational perspective, this role is of key significance for this study since this role elaborates on the horizontal nature of the work of a manager.

The *informational roles* are related to receiving and transmitting information. This is all about processing, e.g. mail, data, reports, news, events and ideas. By these roles, the manager is labelled as the *nerve centre* of the organization in the movement of various information streams which flow through the organization. When combining the liaison role with an external perspective, such a manager will be next to being the nerve centre of the own organization and also have access to the information centres of other organizations through which new information will flow into the organization. Roles like *monitor* (deals with incoming information), *disseminator* (leads incoming information to the right actor within the organization) and *spokesperson* (deals with outgoing information) are of an informational nature.

Decisional roles concern the decision-making which aims at keeping the organization going. In such roles, the manager, e.g., is involved in authorization requests, time scheduling, holding and attending strategy meetings or negotiation with other parties. Mintzberg (1973, 77) shows that the manager gives full energy in his organization's strategy-making system and is involved in every significant part of the decision-making process. The following roles are of a decisional nature; *entrepreneur* (initiator and designer of organizational change), *disturbance handler* (deals with involuntary internal or external crisis situations and changes that are partially beyond the manager's control; Bennebroek Gravenhorst, Werkman, and Boonstra 2003), *resource allocator* (makes decisions that involve significant organizational resources and builds its strategy around this) and *negotiator* (deals with (major) negotiation activities with other organizations or individuals).

Besides these roles, Mintzberg constructed – being unsatisfied for a number of reasons with this settled list of roles – an interactive model of management. In his paper 'Rounding out the manager's job' (1994, 1997; Resteigne and Soeters 2009), he reviewed and integrated the 10 managerial roles. The following managerial activities are the result from this review: *communicating* (seeking, receiving and sharing information), *controlling* (controlling work of others by the use of information), *leading* (enabling and encouraging workers – individually and collectively – to take effective action), *linking* (using the network of contacts outside the organization to represent needs and to transmit influence externally), *doing* (supervising the taking of internal action more or less directly, including directing projects for change and handling crises) and *dealing* (engaging in negotiations and executing agreements with people outside the organization) (Mintzberg 1997; Resteigne and Soeters 2009). Mintzberg (1973) further states that a manager should take care of the efficient production of specific services and goods, design and maintain organizational stability, take charge of the strategy-making system and serve as the key informational link between the focal organization and the environment (including other organizations). Currently, the majority of Mintzberg's propositions are still valid (Tenglad 2006).

However, there is an increasing amount of studies which complement Mintzberg's work (1973, 1994, 1997) and hint at the existence of new tasks with regard to increased interaction of managers with external parties. In his 1997 article 'Managing on the edges', Mintzberg points somewhat at the existence of managing in connection with external actors. *Managing on the edges* is the management between administration and politics, between operations and administration and also between internal processes and external pressures (Mintzberg 1997). Following

these observations, Keuning and Eppink (2000) distinguish three core issues for the manager: external alignment problems, internal alignment problems and structuring problems. We propose that enhanced coordination through orchestration offers a solution to all three issues. Kumar (2004) states that a value network or value chain comprises the orchestration of all necessary activities to create value for the final consumer. Based on prior literature (Agranoff and McGuire 2001; Milward and Provan 2006; Mandell 2001; O'Leary, Choi, and Gerard 2012), it is therefore assumed that we can most clearly identify 'new' tasks and activities that are different from the traditional managerial roles identified by Mintzberg in such horizontal collaboration contexts that might form a new managerial role, i.e. the orchestrational role. This is most likely for managers that function as network managers or orchestrators but might also appear for people that are either involved in jointly managing a network, i.e. in a shared governance mode (Provan and Kenis 2008) or are involved as managers in a network (Milward and Provan 2006). We do not want to exclude the possibility that there are still managers that are more occupied with classical line management but also here activities and tasks that hint at an orchestrational role might appear with regard to intra-orchestration. This study, however, concentrates on identifying the tasks and activities of an orchestrator in an inter-organizational setting as a first step. From this perspective, it is assumed that a manager needs to have a complete understanding of the entire value chain. Only then s(he) can be sure that all involved parties work together both within and across the networks. According to Kumar, an organization can create value by thinking and acting according to the 'valued customer, valued network and valued proposition principle'. This raises the question what an orchestrator actually is and does.

What is an orchestrator?

The role of orchestrator is a fairly recent and emerging phenomenon in the management literature (Busquets 2010; Hinterhuber 2002). Still there are several authors who have in some ways written about orchestrational work or at least hinted at its existence (Busquets 2010; Mintzberg 1990; Hurmellina-Laukkanen and Nätti 2008; Dhanaraj and Parkhe 2006; Hinterhuber 2002; Paquin and Howard-Grenville 2013). Based on previous literature, the role of an orchestrator can be broadly set out in 'orchestrating value chain networks' and 'orchestrating innovation networks'. This orchestrator firstly aims at increasing collective innovation and cooperation, and second at meeting the individual interests of every actor in the chain collaboration (Hardy, Lawrence, and Grant 2005).

The increasing prevalence and importance of orchestrators can be attributed to the fact that 'organizations in all sectors of society are increasingly becoming involved in a variety of collaborative arrangements in order to promote innovation, enter new markets and deal with intractable social problems' (Hardy, Lawrence, and Grant 2005, 58; Raab and Kenis 2009). Organizations act like this to leverage on the differences in skills, knowledge and resources existing amongst them. Actors in a network can collectively develop innovative solutions for problems which cannot be solved on their own by joining their forces (Provan and Kenis 2008). The inequality of relations within organizations is mostly pointed out when we look at management or leadership of regular organizations. The way (network) management is performed by an orchestrator aims at equality and connective capacity and not primarily at

hierarchical relations (Busquets 2010; Goedee and Entken 2013; Hardy, Lawrence, and Grant 2005).

The work of an orchestrator is performed inter-organizationally and the plans for completing goals are continuously adapted based on new opportunities and information that arise from the network. Securing (or binding) the commitment of people is therefore one of the major tasks of the orchestrator. In this way, these people are supported to focus on enabling interactions and building relationships to enrich the network actors with new joint content and resources. Orchestrators of large networks 'have to make constant choices about which actors, aspects and domains to assess and to take along in the process' (Edelenbos, Van Buuren, and Klijn 2013, 134). Orchestration has a key role and can be performed in the following main fields: *knowledge mobility*, *innovation appropriability* and *network stability* (Hurmellina-Laukkanen and Nätti 2008; Dhanaraj and Parkhe 2006). Orchestrators are successful in maintaining and creating these fields because of their advantage of the lacking influence of any status or hierarchy. Orchestrators focus on mutual goals that exceed their own organization. On the contrary in hierarchical organizations, a manager has the task to achieve the short- and long-term goals of their own organization.

Busquets (2010, 481) and Hurmellina-Laukkanen and Nätti (2008), who consider orchestration as a managerial function in managing the innovation network, describe orchestrating as 'the network capacity to dynamically organize innovation to ensure future value creation [and] to set a purposive set of actions to build a path that ensures value for all the actors in the network'.

From orchestrators, it is considered to create good outcomes and practice power by taking control of resources or exerting a specific connective role (Busquets 2010; Hurmellina-Laukkanen and Nätti 2008; Edelenbos, Van Buuren, and Klijn 2013). Since the orchestrator applies centralized decision-making, (s)he is the strategic, connective, value-creating peak in the network (Goedee and Entken 2013). S(he) is assumed to allocate resources which could lead to competitive advantage and to trust building (Granovetter 1985; Child and Faulkner 1998), as well as bridging structural holes (Burt 1992). It is also assumed that (s)he sanctions network actors when needed, is able to cope with political behaviour (Goedee and Entken 2013), manages network processes and is able to lead without using power (Plas 1999; Goedee and Entken 2013).

From the orchestrator, it is expected to manage knowledge mobility, trust, socialization and communication (Hardy, Lawrence, and Grant 2005) and to create a shared identity to ensure a certain standard of network stability (Busquets 2010). 'Orchestrating the network can strengthen the common identity among actors, which is needed in motivating the participants to share knowledge more freely, it can facilitate formal and informal linkages and forums for knowledge exchange so that innovative ad hoc combinations can be created' (Hurmellina-Laukkanen and Nätti 2008, 6). For the success of the chain cooperation, effective conversations also are of unmistakable importance (Hardy, Lawrence, and Grant 2005). Firstly, communication by face-to-face conversations obviously is of great importance. However, also emails, memos, notes, phone calls and minutes of meetings may not be forgotten. Because of the fact that inter-organizational collaborations involve individual participants working together as part of a group, while still remaining connected to their 'own' organizations, the creation of a shared identity is not easy (63). However, a shared identity is very important for cooperation to be effective. Effective

conversations and the creation of a shared identity are related because the latter is produced by conversations which create shared realities concerning membership in different groups (Hardy, Lawrence, and Grant 2005). Variations in conversational styles can lead to different kinds of shared identity formation, which affects the chain cooperation's level of success. Conversations that establish generalized membership result in the production of a shared identity and therefore have beneficial outcomes for the effectiveness of the chain cooperation. When conversations sustain ongoing tensions between private and common constructions of key issues throughout the life of the collaboration and cooperative and assertive styles of talk, the effect on the cooperation is even stronger (Hardy, Lawrence, and Grant 2005, 72).

From another viewpoint, Hinterhuber (2002) states that orchestrational work is aimed at orchestrating value chain cooperation. Orchestrational work is defined by Hinterhuber (2002, 615) 'as a way of creating and capturing value by structuring, coordinating, and integrating the activities of previously separate markets, and by relating these activities effectively to in-house operations with the aim of developing a network of activities that create fundamentally new markets.' He found that the orchestrator can provide superior financial results when the work of the orchestrator ensures a rich and large network of diverse partners. Cooperation is a prerequisite for coordination activities which are in turn indispensable for innovative success of an organization (Smit, Caroll, and Ashford 1995).

Hinterhuber (2002) describes the role of an orchestrator by six steps: (1) analysis of internal value chain, (2) analysis of flow of goods and total value created by the extended value chain, (3) identification of ways to increase the amount of value created by the extended value chain, (4) configuration of network around identified opportunities of value creation, (5) identification of ways to capture value created and (6) management of cross-industry value chains. According to Hinterhuber (2002), the orchestrator is fully accountable for the network's output and orchestrators have the responsibility for creating capabilities of partner organizations. In this way, even in rapidly changing environments (Bennebroek Gravenhorst, Werkman, and Boonstra 2003), the general and main goals of the network can still be achieved.

By these two definitions, the set of activities of the person which manages and enforces the motives of organizations to participate in a network are laid out. Goedee and Entken (2013) and Child and Faulkner (1998) describe such motives for value-increasing cooperation. These include reducing uncertainty, increasing flexibility for faster and better resource allocation, obtaining capacity and knowledge, and ensuring access to complementing capacities, information and skills of other network players. The orchestrator could be considered as the personification of the management of motives for cooperation in a network of equal network partners (Goedee and Entken 2013), which is part of the network management tasks of management of conflict, commitment and internal legitimacy (Milward and Provan 2006) or of activating, framing, mobilizing and synthesizing in Agranoff and McGuire's (2001) typology.

Methods

As in Mintzberg's study of the work of five chief executives in 1967–1968, structured participatory observation to investigate and assess the work of network managers/orchestrators is applied in this study. Structured observation (Mintzberg 1970; Ritche and Lewis 2010) in this study refers to the method to combine the flexibility of

open-ended observation with the discipline to collect structured data. The purpose of this approach is to be as similar as possible to Mintzberg's study of 1967–1968 (Mintzberg 1968, 1970, 1973) in order to be capable to produce comparable results and complement the findings in Mintzberg's study.

For the purpose of this study, a combination of inductive research and explorative research is chosen through which it resembles the *Work Activity School* as described by Mintzberg (1973). This study has a qualitative nature and has collected empirical data through participatory observations of orchestrators (Clark et al. 2009). Since only participative observations are not sufficient (Gladwin, Peterson, and Mwale 2002), interviews with orchestrators to support our findings and a discussion of the findings with an orchestrator were conducted that helped us to further interpret and validate the findings. *The orchestrator* who is being observed is the unit of observation. The unit of analysis is therefore on the individual level.

Complementing Mintzberg 1967–1968

In comparison to Mintzberg, this study has a higher number of observers and a larger sample size. The number of observers increased from 1 to 36 and the sample from 5 to 9 managers. The observers were divided in nine sub-teams of four. Also, the number of observation days were increased from 25 to 52, interviews were conducted next to the observations and there was an increased level of heterogeneity of the sample.

In order to qualify for the sample, a manager had to be in charge of supra-organizational work activities. For the purpose of this study, we looked for evidence of orchestrators managing a network which are generally considered to be successful (e.g. in the areas of *connective capacity- or value-creating capacity for actors within the network*). From the group of potential orchestrators, every group of observers selected one potential orchestrator to observe and perform the research as instructed by the researchers.

Training observers

To increase the reliability and validity of this study, the teams were specially trained to take the role of the *observer-as-participant* (Gelissen 2010). These observers were students in a Bachelor's programme in the area of Management and Organization at a university in the Netherlands. With the goal to increase the reliability of this study, the students received notable training ensuring the reliability of the data.

The instructions were designed to explain the material that was created to guide the students in performing the observations. The material was composed by an a priori developed *open observation instrument* to guide the students in systematically and chronologically noting the type, time, duration, description and reason of each performed activity (a comprehensive version of the Chronology Record of the Mintzberg study 1967–1968), *an operationalization table* which was used to note to what extent the activities of the orchestrator resembled the activities of a manager as described by Mintzberg (1973), *a remarkability form* to set out which activities of the orchestrator did *not* resemble the activities of a manager as described by Mintzberg (1973), *a form to collect general information* about the orchestrator and *an instruction manual*. With regard to procedure and operationalization, this study therefore tried to replicate the original Mintzberg study as closely as possible. Furthermore, the

students received instructions for looking and asking for *new* activities which could be significant contributions to the work of Mintzberg.

Establishing the sampling frame

The sample of network managers/orchestrators was generated in two stages. In the *first stage*, targeted sampling was performed by which the observers approached potential orchestrators by telephone or email based on several selection criteria. Preliminary data concerning the orchestrator was collected by the specific observers. This data consisted of information about the orchestrator, information about the organization and an overview of possible working days for observations.

The criteria that were used in selecting the orchestrators were ‘the presence of’ (1) *supra-organizationally work activities*, (2) *connective capacity*, (3) *value-creating capacity for actors within the network*, (4) *the ability to transfer knowledge throughout the network*, (5) *the ability to keep the network stable*, (6) *the ability to lead without using power*, (7) *the ability to create a shared identity among network actors* and (8) *the capacity to dynamically organize innovation*.

In the *second stage*, the usability of the data and the choice of orchestrator was evaluated by looking at the accurateness of data presentation and to which extent the respondent resembled orchestrational characteristics. The researchers aimed at a sample that would provide the best data possible. In the end, 9 out of the 27 orchestrators observed were included in the analysis. These 9 data sets best satisfied the criteria listed earlier. The other 18 data sets did not satisfy the selection criteria to a sufficient degree. Within the sample, the orchestrators varied on (1) gender (m/f), (2) age (young/old), (3) employment duration, (4) level of work (executive/policy/strategy), (5) level of education (MBO, HBO, WO) and (6) content, process or context orientation. The observed nine persons represent network managers/orchestrators of networks/chains in the fields of public safety and health care in the Netherlands.

Collecting the data

Data collection was performed at least at four measurement moments during one or two weeks per orchestrator in each organization, in the period between *February and April 2013*. The group of four instructors distributed the observational tasks by a 2 × 2 design, set out as follows.

Every moment of measurement ‘X’ took one full working day from 8:30 AM to 6:00 PM. During a period of at least four working days within one or two weeks, the orchestrators were observed by the teams of observers. The interviews and observations took 83 working days in total. After each observation of 2 days, the team of researchers conducted an interview with the respective orchestrator. This was meant to try to complement the observations and ambiguities which were noticed during the day. These were open interviews performed in a narrative way. The interviews lasted approximately 30 minutes and were recorded. Subsequently, the interviews were verbatim transcribed and coded. By this approach, the observation team was able to cross-check the findings of every individual observer and each sub-team (two within the team of four) to reveal whether they were corresponding or not.

The observations were focused on the micro-level. The main focus of the observers was the general activities which were performed during the day by the orchestrator.

The time spent on each task was recorded and noted to define the importance or priority. The orchestrators were observed in the context of their workplaces. Everything which seemed important to the researchers was noted within the given frameworks of the observation instrument. Notes were made in narrative style in order to contribute to the level of transferability. Any activities which were not directly seen by the observation team were not included in the findings.

Analyzing the data

A report of their observations together with the recording and transcript of the interview were delivered as a package by the observers to the researchers. For this study, the researchers searched for patterns of similarities in the interviews and observation data. These findings were grouped and labelled with the goal to create clusters of activities which describe the tasks and roles of an orchestrator and manager. The categories of new activities, tasks and roles that complemented Mintzberg's theory were set-up after the observations. In the final stage of the analysis, students did not actively participate.

Results

Looking at Tables 1 and 2, we can see the following results. From the data and the observations, it was stated that the tasks orchestrators performed were counted 902 (846 + 56) times in total within the time frame of 24,897 (22,800 + 2,097) minutes, which approximately is equal to 415 hours or 52 days. For each task performed, the orchestrator spends 27.6 minutes, and roughly 17 tasks a day were performed on average by one orchestrator. As mentioned earlier, this study attempts to investigate possible additional managerial roles because of the shift towards collaborative management based on Mintzberg's theory. The finding that the job of an orchestrator is only a modest part of the work of a manager emerged relatively quickly. The results of this study reveal that orchestrational work is not a job on its own but that it is rather a part of managerial work that is mostly practised besides the traditional managerial tasks. Looking at the findings of this study, it is suggested to combine managerial and orchestrational work functions instead of defining orchestrational work as an entirely new job.

The new orchestrational role and tasks

Table 1 provides an overview of the managerial roles, type of tasks, the number of times these tasks are found and the number of minutes spent per task and per managerial role. Considering the total count of minutes per role, from the overview, it can be stated that the three most prominent managerial roles were the Spokesperson, the Liason and the Monitor. As set out by Mintzberg (1973), these are part of the traditional managerial roles. Yet, the observations have shown that a whole range of activities could not be linked to the traditional managerial tasks/roles. By grouping the observed activities that could not be subsumed under the existing managerial tasks/roles, we could identify seven new, externally focused managerial tasks which together form the new managerial role of *the orchestrator*. These tasks were grouped by patterns found in the observations and these findings were supported by claims in the interviews. From the interviews, the same findings as with the observations could be distilled. The tasks mentioned in the

Table 1. Results of the observation. Overview of the data about managerial roles.

Role	Task	# tasks	# minutes	Total # tasks per role	Total # minutes per role
Figurehead	1. Ceremonial /executive representative actions	26	1,324	27	1,344
	2. Job interviews	0	0		
	3. Status requests	1	20		
Leader	1. Leading and motivating subordinates	31	1,078	49	1,632
	2. Recruiting, training, promoting, dismissing, rating staff	18	554		
Liaison	1. Maintaining network of external contacts to gain favours and information	66	1,929	120	3,779
	2. External board work	4	227		
	3. Negotiation with external contacts	50	1,623		
Monitor	1. Handling incoming (e)mail	99	1,833	166	3,013
	2. Handling incoming phone calls	44	428		
	3. Maintaining contacts which can contribute valuable information	20	725		
	4. Observational/inspectional tours in the company	3	27		
Disseminator	1. Sending mail containing important information for the organization	46	1,089	118	2,625
	2. Verbal contact with subordinates to send information through the organization	72	1,536		
Spokesperson	1. Attending (board) meetings	39	2,006	203	5,406
	2. Handling outgoing (e)mail	82	1,621		
	3. Handling outgoing phone calls	39	528		
	4. Maintaining valuable external contacts	43	1,251		
Entrepreneur	1. Strategy/review discussion on creation-design of improvements/innovations	32	1,209	55	2,371
	2. Initiating organizational change	8	387		
	3. Searching opportunities for organizational change/improvement	15	775		
Disturbance handler	1. Strategy and review meetings dealing with disturbances and crises	8	262	20	499
	2. Conducting/commissioning corrections to prevent commotion	12	237		
Resource allocator	1. Organizing/planning time	33	655	68	1,658
	2. Delegating and scheduling work of subordinates	17	565		
	3. Spreading and distribution of organizational resources	6	136		
	4. Authorizing the use of resources by subordinates	4	99		
	5. Activities concerned with budgeting and work of subordinates	8	203		
Negotiator	1. Negotiations of any kind	20	473	20	473
Total		846	22,800		

following were prominently mentioned in the interviews as being part of orchestrating an inter-organizational network. The remarks of the respondents fit more general insights from social psychology, namely that moving from roles and activities that are connected to more vertical hierarchical communication and decision-making to the orchestrational role that is connected to more horizontal communication and decision-making requires special efforts and attention

Table 2. Results of the observation. Overview of the data for an orchestrator.

Role	Task	# tasks	# minutes
Orchestrator	Operational work	4	76
	Travelling	10	328
	Bridging	8	718
	Networking	12	474
	Preparing documents	13	322
	Stabilizing network	5	89
	Transferring knowledge	4	90
Total		56	2,097

(Kahneman 2011). This is, because managers have to step out of their routine behaviour and socialization. This is especially true, when things have to happen under time pressure. For example, transferring knowledge in a managerial sense is part of the role of the disseminator. But communicating in an inter-organizational network requires special effort and attention, because the orchestrator must be aware of his role in the network, hence transferring knowledge in this context becomes part of the role of an orchestrator. But these tasks include *operational work* (helping subordinates in performing their operational activities needed in the network), *travelling* (maintaining contact with network actors; by travelling to them for checking up on their progress and activities), *bridging* (during external meetings in which multiple network actors participate, the orchestrator always is the independent intermediary that puts efforts in forming bridges between network actors which facilitate cooperation based on equality), *networking* (to increase value the orchestrator continuously looks for new partners to enrich the network he orchestrates), *preparing documents* (the orchestrator works alone, often without secretary or assistants, which forces her to manage her own agenda and make up many documents such as minutes or presentations individually), *stabilizing the network* (to keep the network stable, the orchestrator tries to run network activities as effective and efficient as possible) and *transferring knowledge* (to initiate and facilitate innovation, the orchestrator is responsible for the diffusion and transmission of knowledge throughout the network).

In total, the managers spent 2097 minutes of their time on orchestrating (Table 2), and thus orchestration ranks on the sixth position out of the 11 roles in terms of times spent on the various tasks (Table 1 and 2). The task *bridging* seems important (718 minutes), which is an indication for the capacity of bringing separate network actors together to form a successful cooperation. The fact that network managers spent more time on activities subsumed under the role of liaison (3779 minutes) than on activities attributed to orchestration indicates that the inter-orchestrator is the nerve centre of the network which negotiates and connects with various network actors.

Interviews and transcripts: going beyond the observable

In order to validate and interpret the findings from the observations, we analysed the qualitative data from the interviews (Bartelings 2013). These findings give an insightful impression of the role of an orchestrator according to the orchestrators

themselves. Findings from the interviews show that the orchestrator conducts a series of diverse tasks that can indeed be subsumed under the role of orchestrator.

Inter-organizational orchestration

Considering the general description of the work of an inter-orchestrator, a manager orchestrating an inter-organizational network, one of the observers provided us with an illuminating insight by stating the following:

The function of the respondent primarily includes bringing together organizations within the region. This means that the respondent must maintain a large network and must continue to broaden it. The respondent eventually brings organizations/businesses/regions together, by participating in different configurations involving strategy and review discussions in order to realize innovation projects.

One inter-orchestrator provided us with the following description of his job:

I want to transmit the information as smoothly as possible, I check, try to develop and maintain the organization network and look for innovations and other risks and opportunities in the area.

Respondent 4, inter-orchestrator network providing combined care and housing

Remarkably, the orchestrator (and this probably also applies to managers in general these days) hardly receives 'regular' mail. In one way or the other, all the work is performed through email. This is an indication that the work environment of the orchestrator compared to a manager in the past shifted from the desk to the virtual desktop. That the major part of the work of an orchestrator consists of liaising with network partners is surprising to notice. The largest part of this contact is performed by email or phone:

Yes, I hardly receive regular mail nowadays. Instead I receive 100 emails a day I think. Well, sometimes that's the disadvantage of this work. One tries to keep the inbox tidy, but every week it is full again. We do have a kind of clean desk policy, but that's difficult to maintain sometimes.

Respondent 5, inter-orchestrator regional development

Bridging and facilitating

To the question: 'What does your job exactly include according to you?' one of the orchestrators had the humorous response: *Chatting and mailing*. Still, this quote entails a certain truth. The orchestrator continued:

I am responsible for the cooperation, the processes and the facilities. I have to get organizations willing to cooperate. You have seen a meeting this morning in which the participants were all leaders of partner organizations connected to one target group, namely that of domestic violence. These were executives and I had to tell them, 'well these are our goals, these are the facilities we offer, what do you think of it?' And actually it was the purpose of that meeting to ensure that middle managers, like that, get a feeling about the development of the safety house. The only goal of the afternoon was to get on the same page. A little commitment, no firm commitments, but just think about it, feel involved, that story

Respondent 6, inter-orchestrator Safety House

This citation indicates that the inter-orchestrator is a non-hierarchical person which has to connect and create trust between different parties which are equally important to him. The orchestrator continues:

I have to match the goals of all network actors. I need to create a win-win situation, because otherwise I just cannot realize my job. And that is, it's funny, the difference with a traditional manager; I should keep continuous tension within the work otherwise I lose the network, while an ordinary traditional manager, which can twice a year smash his fist on the table and say 'I'm the boss and those who do not do what I say, are fired!' [...] So I give a lot of freedom. I give room for creativity and I educated them. And I take care of the best facilities. Furthermore, I stand beside and behind the people. 'Well, if you need anything, I'm here' I coach, I support them, I'm with the new approach, the new family approach that we are inventing.

Respondent 6, inter-orchestrator Safety House

Inter-orchestrators bridge different parties and facilitate cooperation. This facilitating and bridging nature of orchestrational work is exactly elaborated on by the next statement.

The unique feature is the fact that you make something new from different goals of the network partners. So if our main goal is that it should be safe in society, it means that you have to visualize early concerns about certain people that threaten safety. In this, the joint partners each use their own expertise. That's pretty unique, because you bring together independent organizations within one cooperation. My role is to ensure that the network actors are facilitated enough to do their job properly. [...] One creates the conditions, and the other does the implementation.

Respondent 7, inter-orchestrator Care and Safety House

Maintaining network stability

For value creation and innovation to be of high standards, the stability in a network is essential. The job of the inter-orchestrator is ensuring and maintaining the network stability and related quality of processes. The following quote is an interesting finding considering this job. The inter-orchestrator can remove individuals from the network by bringing this request to the attention of the respective superior in the organization. In this way, the concerned person can be removed (or replaced) from the horizontal collaboration via the hierarchical path of his/her respective organization. It does not mean that the organization itself can be removed by the orchestrator.

If a network actor cannot show the behavior that the network expects, I will remove him or her from the network. It just requires a certain behavior if you want to work within the dynamics of the network [cooperation]. It is about being absolutely willing to cooperate and to share knowledge and skills. In a vertical organization, it is all very tightly regulated and framed but in a horizontal structure this is much less sharply defined. In a horizontal network it is much more about trust and the behavior you want from each other. If anyone fails or someone else is doing it differently than expected, the risk of conflict emerges.

Respondent 4, inter-orchestrator network providing combined care and housing

Networking

For possible improvements of the value creation of the network, the inter-orchestrator looks for potential partners through networking. One orchestrator argues:

I look for new network partners actually through networking, so [...] yes I get invited to the meetings, receptions and then I very selectively go to only the meetings where I expect to meet the best partners. I make very deliberate choices in that.

Respondent 2, inter-orchestrator Chamber of Commerce/Regional Development Agency

Besides the previous findings on the tasks of an orchestrator, hierarchy and daily planning are also notable findings which can be connected to the orchestrational role. We will briefly elaborate on these in the following.

Absence of hierarchy

It seems that the inter-orchestrator has no subordinates and only manages his connections and colleagues by horizontal relationships based on equality. The inter-orchestrator supports the numerous network actors in cooperation by functioning as the intermediary amongst them:

Uh, no there are no subordinates because I am a coordinator. So, I coordinate the content of the work especially concerning the partners that are included or excluded from cooperation, that kind of decisions

Respondent 2, inter-orchestrator Chamber of commerce/regional development agency

An inter-orchestrator is often more busy as a spectator of the cooperation to consider follow-up actions instead as a manager controlling and directing the subordinates. The next confirming observation for this issue was done by one of the research teams:

What struck me was the role the inter-orchestrator played in many of these consultations. He played a more contemplative rather than leading role. This indicates the horizontal way of managing.

Daily planning

In the weekly programme of an orchestrator, two different days can be identified, namely internal and external days. On external days, the orchestrator often is present at other locations for meetings and liaising with partners. When the orchestrator has an internal day, (s)he works from her/his own office. The daily tasks mainly entail the participation in consultations both internally and externally.

Discussion and conclusion

‘What is the nature of orchestrational work?’ In order to answer this question, we investigated to what extent and how the nature of orchestrational work differs from more traditional managerial work. While we saw that the work of a network manager contains the 10 roles originally described by Mintzberg (1973) albeit in different proportions, it is the new role of orchestrator consisting of seven tasks that makes the defining difference. We therefore define orchestrational work as the role in which the orchestrator consciously integrates and therefore fine-tunes activities which have to be executed by network partners from various organizations to deliver concrete jointly arranged results.

Orchestrational work is further regarded as a means to fine-tune formal activities which have to be executed by professionals from various organizations (Goedee and Entken 2013). So not only value creation is important but also the regular work which has to be done. However, orchestrational work is also about *how* activities are performed and not only about which activities are fulfilled. An orchestrator must realize that the attitude and image (s)he carries out is important because the orchestrator’s legitimacy strongly depends on his/her ability for capacitating the cooperation between network/chain partners. In this study, we identified seven activities which can be allocated to the managerial role of an orchestrator. The nature of

orchestrational work entails *operational work, travelling, bridging, networking, preparing documents, stabilizing the network* and *transferring knowledge*.

For the orchestrator to be able to fulfil these activities, (s)he spends a considerable amount of time travelling which follows from a non-hierarchically structured and externally focused work environment based on equality which provides considerable freedom and leeway. Most of the communication with network actors is performed by virtual means, by email or phone. Often the daily agenda is unpredictable and depends on the task or situation the orchestrator is confronted with. To stay on track, respondents emphasized that an orchestrator must guide the network/chain cooperation of participating organizations towards their common goals for them to be effective. Depending on the situation, this asks for an active or more withdrawn attitude.

The results also reveal, however, that many facets of the managerial work of a network manager or orchestrator are still comprised in the more traditional managerial roles as set out in Mintzberg's (1973) framework. This finding corresponds with Agranoff's (2006) observation that activities of the traditional POSDCORB paradigm do not disappear but that the proportions change and new activities related to collaborative management complement the more traditional roles. In our opinion, orchestrational work is an additional role to Mintzberg's managerial roles (1973) instead of a completely new job also indicated by the fact that the amount of time spent on tasks with regard to the orchestrational role is less than on other roles. Nowadays, the orchestrator actually is a manager who performs traditional managerial roles horizontally complemented by one new role, the role of the orchestrator. Nonetheless, compared to a traditional manager, for the orchestrator the importance of each role varies. Where Mintzberg describes the manager above all as a leader, the orchestrator should rather be defined as a spokesperson.

This study has provided substantiation for theoretical ideas suggested by, e.g., Busquets (2010), Hinterhuber (2002), Hurmellina-Laukkanen and Nätti (2008) and Dhanaraj and Parkhe (2006) who studied orchestrational work in other contexts. By this study, we therefore conceive that additional empirical evidence is provided for the existence of orchestrational work. Evidence is found for orchestrational work activities in all of the three areas of orchestration as stated by Hurmellina-Laukkanen and Nätti (2008). It can actually be deduced that the orchestrator performs tasks in the domains of innovation appropriability, knowledge mobility and maintaining network stability.

The orchestrational role as further developed in this study is a significantly important and useful role which explains the alterations in the discourse on managerial work in the context of recent developments in the organization of human activity in many societies (Raab and Kenis 2009).¹ From the microperspective, this study tries to contribute to the field of network management and orchestration and provide input for future research. In comparison with previous studies in public management on network management, this study is one of the first to use direct observations of managerial activities. By focusing on management activities on the level of the individual manager, this study therefore complements existing studies on the governance and management of networks on the network level. However, it is interesting to note that we could recognize the broader categories of network management as suggested by Agranoff and McGuire (2001) in the statements of our respondents: activation, framing, mobilizing and synthesizing (Agranoff and McGuire 2001). Because of this, we think that this study adds to our understanding of network

management with respect to the proportion and combination of more traditional with new managerial roles.

By analysing the nature of orchestrational work, we specifically focused on orchestrational work from an inter-organizational perspective. This is the type of orchestrator as referred to by Busquets (2010) and Hinterhuber (2002). With the purpose to improve innovation and future value creation, such orchestrators are the liaising nerve centres of the network to bridge gaps between network partners. The inter-orchestrator is mostly engaged in the role of monitoring and spokesperson and is the perfect example of the linking pin which leads without exerting hierarchical power.

This study also contains some limitations. For data collection on the nature of orchestrational work, an observation grid was created based on Mintzberg's (1973) original approach. This enabled us to study to what extent the work of an orchestrator is different or similar to traditional managerial work. However, during the research, we noticed that the separation line between traditional managerial work and orchestrational work was often blurred. For our observers, therefore, this might have led to the tendency to connect the observed tasks to the existing roles and theories relatively quickly without remembering to pay attention to the discovery of new tasks. This may have induced an underestimation of orchestrational tasks.

Although the findings of this research are in line with previous literature on orchestration (Busquets 2010; Hinterhuber 2002; Hurmellina-Laukkanen and Nätti 2008; Dhanaraj and Parkhe 2006), these are obviously based on a limited sample in specific sectors in one country in a specific function, i.e. the orchestrator which limits the generalizability to other contexts. In fact, our study is only a first step in investigating to what extent traditional managerial roles are being complemented by the orchestrational role. But, if we had not been able to identify a complementary role in this setting, the probability to detect it would be very low in other settings. It will, e.g., be interesting to see whether and to what extent we find activities attributed to the orchestrational role in the function of intra-orchestrators or even regular managerial personnel that is involved in intra- and inter-organizational network settings, i.e. management in networks (Milward and Provan 2006). Therefore, we like to encourage others to investigate the nature of the work of (network) managers in other institutional and organizational fields. The interconnectedness and prevalence of networks both in private and in public sectors will presumably further increase in the future because of technological and institutional changes (Friedman 2007). Therefore, it is imperative to keep up with the changes in the nature of managerial work. Future research should first attempt to amplify the theory on orchestrational work but also further develop the methodological approach applied in this study. We are confident that such efforts will lead to an increased understanding of the work of network managers and ultimately also to our understanding of the functioning of networks, including the effectiveness of goal-directed networks and network intervention. In order to further develop the education of (public) managers, it is essential to create these insights. This enables them to successfully manage the organizational challenges they are confronted with in their daily practice. For making progress in this direction, we consider it to be important to combine insights from network management studies on the broader task level of the network and the operational level of daily activities. We also believe that combining insights from studies on general management and public management can have added

value for both fields. We hope this study provides a valuable stepping stone in this direction.

Note

1. We thank an anonymous reviewer who raised the point to distinguish between ‘importance and usefulness’ of the orchestrational role. ‘Time spent’ on this role mainly gives an indication about the importance but not necessarily the usefulness of the orchestrational role. In order to clearly demonstrate that, one would have to compare networks with and without an orchestrator and look at the respective effects. The findings of this study, however, suggest that the ‘time spent’ on the orchestrational role to some extent also point to the ‘usefulness’ of the role. This can mainly be explained by the fact that in horizontal collaborations, orchestrators need substantial time for necessary face-to-face contact with the partners to fulfill the necessary network management roles (Milward and Provan 2006; McGuire 2002).

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No potential conflict of interest was reported by the authors.

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