

Network Ethnography: A Mixed-Method Approach for the Study of Practices in Interorganizational Settings

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Abstract

A general interest in the study of social practices has been spreading across a diversity of disciplines in organization and management research, relying mostly on rich ethnographic accounts of units or teams. What is often called the *practice-turn*, however, has not reached research on inter-organizational networks. This is mainly due to methodological issues that call, in the end, for a mixed-method approach. This article addresses this issue by proposing a research design that balances well-established social network analysis with a set of techniques of organizational ethnography that fit with the specifics of interorganizational networks. In what we call *network ethnography*, qualitative and quantitative data are collected and analyzed in a parallel fashion. Ultimately, the design implies convergence during data interpretation, hereby offering platforms of reflection for each method toward new data collection and analysis. We discuss implications for mixed-method literature, research on interorganizational networks, and organizational ethnography.

Keywords

mixed methods, network ethnography, interorganizational network, practice-turn

Introduction

A general interest in the study of practices has been spreading across a diversity of disciplines in organization and management research, ranging from strategy (Jarzabkowski, Balogun, & Seidl, 2007), accounting (Whittington, 2011), or knowledge (Brown & Duguid, 2001) to institutions and innovation (Lounsbury & Crumley, 2007). This growing body of research is being celebrated as a new epistemological advance in organization studies (Simpson, 2009). However, a practice-based

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approach to the emergence, structuration, and maintenance of goal-directed interorganizational networks is still missing, by and large. While the contextual effect of networks on their members has been investigated from a practice perspective (e.g., Pratt, 2000; Stern, 1979), we know very little about how micro practices bring goal-directed networks into being (Provan, Fish, & Sydow, 2007) and explain “how things work” in such networks (Watson, 2011). In this article, we argue that this paucity of practice-based research on networks is due to methodological constraints and can be alleviated by a mixed-method research design.

Research on interorganizational networks is still dominated by quantitative social network analysis, henceforth SNA. SNA is often deemed unavoidable to understand the very size and structure of networks, the characteristics of interactions, or the roles and positions of specific actors within the network (Scott, 2000; Wasserman, 1994; for applications, see e.g. Owen-Smith & Powell, 2004; Schweinberger, Petrescu-Prahova, & Vu, 2014). SNA is well developed, including dedicated software and journals (Borgatti, Mehra, Brass, & Labianca, 2009). This methodology, even in dynamic versions (Snijders, van de Bunt, & Steglich, 2010), provides only a snapshot of network configurations at one or several given points in time. Consequently, it is not equipped to apprehend the continuous enactment process that explains the emergence, reproduction, and transformation of the structural properties it reports on. Such research interests are arguably served better via ethnography (Miettinen, Samra-Fredericks, & Yanow, 2009; Nicolini, 2009, 2011; Ybema, Yanow, Wels, & Kamsteeg, 2009). Organizational ethnography looks typically at how individuals or members of groups enact and alter structures via specific action patterns and social mechanisms (see e.g., Jarzabkowski, 2008; Orlikowski, 2002). This methodology, however, cannot fully apprehend the extent of large networks and their core structural features (e.g., the number of participants, actors' relational centrality, and related power resources), especially in informal networks. While many studies of interorganizational networks have shown the potential of qualitative data and interpretive analysis to explain the enactment of networks (e.g., Ariño & de la Torre, 1998; Dittrich, Duysters, & de Man, 2007; Sydow & Windeler, 1998), ethnography still awaits more systematic applications in such settings. Hence we ask the following research questions:

Research Question: How—and toward what ends—can we combine rich ethnographic data with the structural clarity of SNA at the level of whole networks?

Our purpose is to introduce a mixed-method research design that we call *network ethnography*, which tries to deal with these challenges by following a “balancing approach.” In spite of many pleas to support the use of mixed-method approaches in organizational studies generally (Daft & Lewin, 1993; Edmondson & McManus, 2007; Molina-Azorin, 2012), mixed-method research on interorganizational networks remains scarce and unbalanced (e.g., Cross, Dickmann, Newman-Gonchar, & Fagan, 2009; Palinkas et al., 2011; Park & Kluver, 2009; Williams & Shepherd, in press; for critics, see Crossley, 2010; Rice et al., 2014). In this article, we propose to combine SNA with established ethnographic techniques that were developed to approach multi-sitedness in organizations and may also be applied to the multi-sitedness that characterizes interorganizational networks. In the design we propose, qualitative and quantitative data are collected and analyzed separately and in a parallel fashion (Creswell & Plano-Clark, 2011). Ultimately, the design implies convergence during data interpretation, hereby offering platforms of reflection for each method toward new data collection and analysis. Such an approach, we argue, will enable more practice-based research on interorganizational networks and their management and contribute to addressing the current evolution toward more micro and process-based approaches of networks research and their multilevel dynamics (Majchrzak, Jarvenpaa, & Bagherzadeh, 2015; Moliterno & Mahony, 2011; Provan et al., 2007).

In the remainder of the article, we briefly discuss the need for more practice-based research on interorganizational networks and propose exemplary research questions that have remained unaddressed so far in order to illustrate our point. Then we discuss in detail the epistemological challenges of integrating two approaches that stem from different traditions. SNA and its objective take on network structures does not automatically fit with ethnography and its social constructionist view of organizations and organizing. We contrast this discussion with literature on mixed methods and introduce a research design that aims at balancing both ethnography and SNA toward a mixed-method approach to the analysis of interorganizational network dynamics. We stress the relevance of this research design by discussing its potential application for exemplary research questions. We also draw on our experience from a research project on an interorganizational network for emergency management to illustrate specific aspects of our approach. We close with a discussion that points out the contributions of our approach for mixed methods and research on interorganizational networks and highlights options for further research.

The Missing Practice-Turn in Interorganizational Network Research

Researching Whole Networks

Interorganizational relations are a very common topic in organizational research and have found applications in disciplines as diverse as strategic management (Jarillo, 1988), public administration (Provan & Milward, 1995), financing (Powell, Koput, Bowie, & Smith-Doerr, 2002), and even criminal studies (Raab & Milward, 2003). While interorganizational relations and their effects on organizations have been researched extensively, studies of whole networks are comparatively rare (Provan et al., 2007). Researching whole networks implies viewing the interorganizational network as a distinct form of goal-directed system instead of a mere context or resource. Specifically, a whole network is “a group of three or more organizations connected in ways that facilitate achievement of a common goal” (Provan et al., 2007, p. 482). From this perspective, interorganizational networks are governed via specific structures, formal (e.g., specified via contracts) or informal (e.g., via trust), developed collectively and over time, sometimes even including a dedicated network administration organization (Provan & Kenis, 2008). Interorganizational relationships, in such cases, imply a rather broad agentic autonomy amid distributed, non-hierarchical flows of diverse nature that go beyond market-based contracts toward higher degrees of connectedness, including even the development of a network identity among members (Raab & Kenis, 2009).

According to Provan et al. (2007), an interest in whole networks implies a focus on structural features of the entire network as an organizational form in its own right. In this respect, SNA is an obvious and well-established analytical tool (Scott, 2000). The goal of applying SNA in interorganizational settings is to provide an overall, explicit picture of the network and its attributes via quantitative measurement of its participants' ties, the density and multiplexity of these relationships, or any clustering tendencies within the whole network (Borgatti et al., 2009; Wasserman, 1994). SNA works with relational data, which is then filled into a matrix and can be depicted using dedicated software applications, such as UCINET and NetDraw. Network attributes can then serve as dependent or independent variables for multivariate statistics. For example, Owen-Smith and Powell (2004) show how information spillovers in networks are driven by geographic concentration and the nature of the organization(s) that is most central to the network. Provan and Milward (1995) show how network effectiveness is a function of the network's stability over time and its structures of integration, centralization, resource, and control.

Nonetheless, SNA is not the only way to explore whole networks. Some studies apply qualitative approaches to look at the processes and mechanisms that explain structural properties of interorganizational networks. For example, Moynihan (2009) reports on the use of incident command systems

(ICS) in case studies of disease outbreaks and shows how ICS functions like a spontaneous network administration organization. Similarly, by way of interview-based case studies in the production of films (Windeler & Sydow, 2001) and in financial services (Sydow & Windeler, 1998), Sydow and Windeler report on the recursive emergence of structures for, and practices of, network management, in particular network evaluation. Such more detailed and process-related investigations of whole networks are difficult to conduct using SNA alone.

Social Practices in Interorganizational Networks

A diversity of theoretical and methodological approaches is available for the study of whole networks. Nevertheless, practices have hardly surfaced in research on interorganizational networks (Provan et al., 2007). The interest in practices finds its roots in numerous streams of social theory, ranging from Foucault, Giddens, Bourdieu, Heidegger, and Wittgenstein to Mead, to name but a few (Nicolini, 2009; Simpson, 2009). While Bourdieu or Giddens define *practice* differently, the term is now widely used to imply the idea that social structures such as identity, power resources, rules, norms, and countless more are best expressed and studied via socially embedded and recurrent activities that constitute a bridge between agency and structures (Feldman & Orlikowski, 2011; Schatzki, 2001, 2007; Simpson, 2009). More often than not, this is done by shedding light on the influence of structures as an ostensive blueprint for action and the performative role of the activities that bring these structures to life and alter them (Feldman & Pentland, 2003). The practice-based approach has found wide resonance in organization and management research (for a recent review, see Vaara & Whittington, 2012). Most prominently, it has helped to redefine contemporary research on strategy (Whittington, 2006), opened new avenues for research on the usage of technology in organizations (Orlikowski & Yates, 1994), and reinvigorated many more issues in management research, from knowledge and learning to institutionalism (for a general discussion, see Feldman & Orlikowski, 2011).

A handful of exemplary studies suggest a strong potential for further research on interorganizational networks as well. Knights, Murray, and Willmott (1993) show that creating and building a network to facilitate the introduction of electronic trading of life insurances was a form of “knowledge work.” Similarly, in a seminal study of the National Collegiate Athletic Association, Stern (1979) stresses the intertwined nature of processes and structures and introduces the practice of administrative structuring and system coupling. Going further, Sydow (2004), in a longitudinal study of industrial insurance brokers, stresses how evaluation practices shape the development of networks and vice versa. Finally, Pratt (2000) studied a network marketing organization and the capacity of that organization to manage identification with its group of distributors using a practice perspective. Looking at the activities underlying the coordination of individual and collective expectations, mentoring, and recruiting, his findings show how distributors help each other to make sense of their participation in the overall network.

Studies like the one by Pratt (2000) highlight fascinating aspects of how actors recurrently enact interorganizational networks with the help of social practices, holding them together and providing their relations with meaning and legitimacy. Toward this end, networks can neither rely on hierarchy (Powell, 1990), nor are they necessarily “there” constantly, as compared to an organization with dedicated office spaces, employees, legal existence, and so on. Yet we still lack solid foundations that would explain how organizations and individuals set such dynamics in motion. Considering this gap in our knowledge, practice studies from other literatures might be helpful at first to explore the production, reproduction, and transformation of network structures. For example, Nicolini (2011) shows how practices can be considered as “site” where organizational knowledge comes to life in the form of complex nets of interrelated activities and organizational relationships. This approach could be transposed to the interorganizational level, for example, to study the development of

just-in-sequence supply relationships in production networks or the interorganizational development of new modules and systems for complex products involving many suppliers. Building on the idea that practices are the site of knowing and relationships, one could observe how interorganizationality is produced and maintained by such practices and how these practices create meaning and allegiance to the broader network or its brokers. Similarly, practices of organizational coordination (Kellogg, Orlikowski, & Yates, 2006) as well as practices of strategizing (Jarzabkowski et al., 2007) could be transposed and expanded at the network level to explain how organizations structure their existence while working toward a common goal. The limit to this promising avenue of research, we argue, is methodological in nature and can be overcome via mixed methods.

Mixing Methods in Network Research: Core Questions at the Outset

Exemplary Research Questions

Only a handful of studies have attempted to rely on both SNA and ethnography in the study of interorganizational networks. This is surprising when we consider the role played by anthropology (together with sociology and mathematics) in developing social network analytic methods (Borgerhoff-Mulder & Caro, 1985; Marsden, 1990). SNA, relational matrices, and various ethnographic techniques have already been applied jointly to other, related settings, like social networks of youth leaders in segregated communities (Smith, *in press*), technology-mediated interactions in communities of practice (Howard, 2002), and intraorganizational brokering of knowledge (Currie & White, 2012). Besides, SNA and interview-based qualitative data have been used jointly in studies of interorganizational networks, for example to produce insights into the evolution of such systems and reasons for their decay (Human & Provan, 1997, 2000). Berends, van Burg, and van Raaij (2011) rely on qualitative data to account for the interactions between interorganizational and interpersonal networks. They confess in their methodology section that they relied on SNA-related analysis to get an overview of the interorganizational and interpersonal networks and pace their evolution. Finally, Paquin and Howard-Grenville (2013) mix SNA-based insights on the evolution of the network under study with interviews conducted with partners in the network and observations at the focal organization to unpack what they call the process of network orchestration over time.

SNA-based explorations of interorganizational networks are necessary if we want to understand the structures of such often complex systems both as outcomes of and as enabling conditions for network management. Contrary to those of single organizations, network structures are seldom made visible via artifacts and rules, especially in vast, informal networks governed decentrally by their participants (Provan & Kenis, 2008). In such settings, SNA often provides the only access to insights about power, positions, or multiplexity of ties. Still, only the use of ethnography can provide access to unacknowledged practices and the members' tacit knowledge about the enactment, reproduction, and transformation of network structures. Nonetheless, if applied without the help of SNA, ethnographic fieldwork at selected sites makes it difficult to work out the relational context in which organizations are evolving beyond what is observable or reported. Gaining knowledge of the structure of the whole network, as its participants render it in surveys, provides important insights with which to contextualize observations and infer the impact of specific activities on the network level, especially for research questions addressing the network itself rather than how it impacts on its participants (Provan et al., 2007).

To study practices in greater depth, we need, in addition to SNA, to rely on techniques from ethnographic fieldwork that allow us to unpack the activities of boundary spanners (Adams, 1980; Langan-Fox & Cooper, 2014) at multiple organizational sites—while keeping an eye on how these activities relate to the structural development of the whole network. Mixed-method integration, however, needs to do more than add SNA-based insights to ethnographic fieldwork and vice versa

(Fetters & Freshwater, 2015). Instead, an integration of SNA and ethnography should deal reflectively with the different epistemologies underlying these two research traditions and address specific research questions that have remained unexplored in the study of interorganizational networks. For example, the question of the formation of goal-directed networks has been puzzling scholars for decades (Kenis & Knoke, 2002; Krueathep, Riccucci, & Suwanmala, 2010; Ring & Van de Ven 1994; Van de Ven, 1976). Many studies report on why such networks emerge but not on how (for reviews, see Isett, Mergel, LeRoux, Mischen, & Rethemeyer, 2011; Provan & Lemaire, 2012). Similarly, the process by which participants of goal-directed networks contribute to structure and enact specific modes of network governance remains unpacked (Provan & Kenis, 2008; Provan et al., 2007). And the notions of networks' internal and external legitimacy, as well as their interplay, also remain to be studied in terms of concrete managerial activities (Human & Provan, 2000). Related research questions that can only be addressed by mixing SNA with ethnography could be:

Example 1: How do rules for the selection, retention, and rejection of network members emerge and evolve, and what impact do they have in turn on the development of the whole network?

Tackling this question, mixing methods could imply the mapping of the network with SNA, identifying brokers and gatekeepers via measures of centrality and cliques, and the ethnographic exploration of network enactments, such as in multilateral meetings or symposiums or interorganizational operations. While SNA would help to understand which organizations are instrumental in the development of such rules, ethnography could reveal how these rules are negotiated in the first place and then applied in practice. Reflectively mixing SNA and ethnography in the analysis would enable the unpacking of how the network's structural features influence actions (centrality of specific actors, interdependencies, etc.), and these in turn influence the aforementioned rules. For example, how do less central organizations counterbalance the structural blueprint of the network and influence the entry of new members via their enactment of rules, an aspect that could be captured via multiple SNA-based snapshots of the network and ethnographic observations of the enactment of network rules and their evolution over time?

Example 2: How does the process of change in network governance unfold in a goal-directed network?

Here, mixing methods would require similar SNA measures to the aforementioned question, in particular about brokering in the network. SNA could help validate, say, the centrality not only of a focal firm but also of a set of central suppliers in a production network—features that are typical for lead organization–governed networks (Provan & Kenis, 2008). Ethnographic exploration, however, would allow us to deepen such findings by showing how participants in interorganizational decision making enact features of other modes of governance to circumvent reflexively the structural role of the lead organization(s). Indeed, we still know little to nothing about the processes by which specific governance features arise, diffuse, and merge toward stable, hybrid modes of governance in networks.

Example 3: How do organizations leverage network effects to increase the external legitimacy of their network and its goal?

In this case, mixing methods could rely on measures of network closure instead of brokering to pace how the self-reinforcing mechanisms behind network effects drive the perceived attractiveness of network participation. At the same time, showing how “knowledgeable agents” (Giddens, 1984) enact this mechanism in, say, negotiations over subsidies for a cluster management, could lead to

potentially brand new insights into the role of agency and reflexivity on why some networks survive and attract the necessary resources for their survival while others don't. Such knowledge would refine extant theories that mostly build on path-dependent institutionalization processes (e.g., Powell, Packallen, & Whittington, 2012).

Epistemological Concerns: Toward a Parallel-Convergent Design

Answering questions like these calls for a mixed-method design that combines SNA with ethnographic techniques to what we call network ethnography. While highly promising for networks research, the prospect of mixing SNA with ethnography in interorganizational networks, however, raises significant epistemological issues. In general terms, mixed methods involve the collection and analysis of both qualitative and quantitative data (Johnson, Onwuegbuzie, & Turner, 2007). This implies a large scope of variation in terms of research paradigms, research designs (and the question of dominance between qualitative and quantitative data), data collection (sequential or parallel), and the goals of mixing methods, for example, triangulating, mutually enhancing, or producing diverging insights (Creswell, 2014). Mixed-method research is often hailed as a third paradigm between qualitative and quantitative research (Johnson & Onwuegbuzie, 2004). However, in spite of calls for inclusion (e.g., Brannen, 2005; Denzin, 1970; Onwuegbuzie, 2012), a popular view remains that qualitative and quantitative research stand for situated impressions versus objective knowledge and should evolve within their own incommensurable logics and writing styles (e.g., Pfeffer, 1993, 1995; Van Maanen, 1995).

SNA is a typical example of research practices that are generally used to develop objective and reliable measures of network structures toward the development of a general theory; here, one of networks (Borgatti et al., 2009; Snijders et al., 2010). This alleged objectivity could be used to assert that interorganizational networks are objectively "out there" and at hand for measurement and quantification. Ethnography, on the other hand, "is about understanding human experience—how a particular community lives—by studying events, language, rituals, institutions, behaviors, artifacts, and interactions" (Cunliffe, 2010, p. 227). As such, it has taken the position of a challenging perspective to positivist thinking in organization theory (Bate, 1997). From this perspective, an interorganizational network is not "out there" but only exists in the interactions of its members, with a diversity of interpretations and truths about the network as rich as the number of its participants. When sticking to such contradictory perspectives, SNA and ethnography can collide.

From practice-based perspectives in general and a structurationist point of view in particular, however, these two approaches are not incompatible. After all, SNA emerged as a tool to assist cultural anthropologists in their attempts to grasp the communities under study. Consequently, data collection relies heavily on the perception of participants, including sociometric surveys but also diaries or even direct observations to minimize disturbances (Zwijze-Koning & de Jong, 2005; for similar methodological points in the case of practice research, see Balogun, Huff, & Johnson, 2003). SNA, considered from this epistemological angle, represents a set of techniques that pays tribute to social constructionism in and of networks by extracting the ostensive picture that the participants have in mind about the relations in which they are socially embedded.

This discussion highlights the fundamental difference (and sometimes misunderstandings) between the scientific practices we use and the epistemology we root our studies in. Such questions are at the core of the mixed-methods literature (Creswell, 2014; Mertens, 2011). For example, Johnson and colleagues (2007) defend the idea that mixed methods should stand out not as a combination but as a synthesis of ideas from both qualitative and quantitative research. Schwandt (2000) provocatively argues that distinguishing between qualitative and quantitative research is unproductive and contributes to antagonizing researchers, putting to the fore the interpretive nature

of research in all cases. More consensually, Onwuegbuzie (2012) enjoins us to consider mixed-methods studies as a “radical, thoughtful, and empathetic middle” (p. 194) in the form of a constructivist view towards methodology “wherein multiple, contradictory, but equally valid methodologies can exist for studying the same phenomenon” (p. 195).

In this article, we embrace this latter view and propose that the structurationist background to the practice-based view of organizations (Giddens, 1984; Jarzabkowski, 2008; Weaver & Gioia, 1994) helps to address this idea of a radical middle. Specifically, the convergence of qualitative and quantitative data can be facilitated via the guiding concept of the duality of structure and agency (Giddens, 1984) as the pivotal element of the convergence of analysis. From this point of view, this duality is embodied in observable practices. A structurationist inquiry implies sorting out data and interpretations according to these levels (i.e., structural conditions and reflexive agency) toward a unified account of specific systems, their structures, and their reproduction (Barley & Tolbert, 1997; Pozzebon & Pinsonneault, 2005). As detailed previously, in the case of interorganizational networks, mixing SNA with ethnography to network ethnography would allow us to see more than a qualitative or quantitative analysis would reveal. SNA not only helps with mapping whole networks but also informs researchers about the structural dimensions (centrality of actors, what rules and resources explain the creation of ties, etc.) of the network from the participants’ perspective. SNA, from this point of view, offers a glimpse of the *ostensive* influence of a network’s structure, as participants perceive and render it, while ethnographic fieldwork helps to surface the specific actions that enact these structures, namely, the *performative* aspect of network relations (Feldman & Pentland, 2003). At the same time, the qualitative (ethnographic) approach not only leads to insights about what activities explain the enactment of network rules and resources that explain the structural status quo but also reveals how these rules and resources are reproduced and altered in practice and how actors create meaning out of their ties to others. To concretize this idea, in what follows we propose to rely on a convergent-parallel research approach. This approach proposes that no method should dominate over the other to maximize mutual enrichment during the convergence of analyses (Creswell & Plano Clark, 2011). We first detail possibilities for ethnographic data collection at the network level and then go into the integration of the two streams in more detail.

Adapting Fieldwork Techniques for Network Ethnography

SNA is an approach dedicated to the study of networks and obviously does not need specific adaptation effort for that context. On the other hand, we see the need to take a closer look at techniques for ethnographic data collection in interorganizational networks and address their distinct characteristics (e.g., elusive dependencies, hybrid governance forms, multi-sitedness).

Countless articles and books provide detailed accounts and “boiler plates” (Pratt, 2009) on how to conduct and/or write ethnography (Golden-Biddle & Locke, 1993; Van Maanen, 1988; Watson, 2011). Let us limit our introduction to this methodology by stating that ethnographic fieldwork builds primarily on direct observations, often enhanced with other types of qualitative material; produces highly descriptive and evocative reports almost as if crafted for reportage, literally describing people; and often includes reflections on the ethnographer’s relations with the field (Jarzabkowski, Bednarek, & Lê, 2014; Van Maanen, 2010).

“Organizational ethnography,” since its revival in the late 1970s (Ybema et al., 2009), has become a prominent approach of data collection and analysis in management and organization studies (e.g., Miettinen et al., 2009; Neyland, 2008; Schwartzman, 1993; Watson, 2011) and keeps on developing a diversity of forms (Rouleau, de Rond, & Musca, 2014). Organizational ethnographers often rely on more or less uninterrupted field stays (Schwartzman, 1993; Yanow, 2009), commonly entering the field for several periods in the course of one year or two (Eberle & Maeder,

2011; Jeffrey & Troman, 2004). Interviews, audiovisual recordings (Neyland, 2008), and documents, usually produced by the organizations (Yanow, 2009), typically supplement fieldwork.

Although (organizational) ethnography is claimed to be suitable for the study of interorganizational settings (Eberle & Maeder, 2011; Yanow, 2009), it is in fact “seldom used to study this larger context itself” (Zilber, 2014, p. 96). No matter whether such a context is necessarily “larger” (given the possibility of small regional networks and large multinational corporations), related applications are rare (for exceptions, see e.g., Knight & Pye, 2005; Pratt, 2000). Still, there has been a remarkable development in dealing with larger pluralistic settings. Approaches like multi-sited ethnography (Falzon, 2009; Hannerz, 2003; Marcus, 1995), global ethnography (Burawoy, 2000, 2001; Gille & Riain, 2002), or multi-event ethnography (Delgado & Cruz, 2014) have expanded the focus of ethnography beyond a single entity. However, the interorganizational network as a phenomenon in its own right is typically not at the focus of their attention. Instead, those approaches either see global phenomena constructed in the local context (Burawoy, 2001) and/or follow specific phenomena or objects, like specific global practices (Jarzabkowski, Bednarek, & Cabantous, 2015), or individuals (Hannerz, 2003).

Nonetheless, extant works provide a sound basis for techniques that should allow ethnographic studies of interorganizational networks. But if we want to understand the practices underlying the emergence and structuration of such networks, it is not enough to follow only some of their practices, people, or objects (Zilber, 2014). In particular, we see the need to observe how the network is enacted in its day-to-day activities. For example, this can be done at production sites, where suppliers deliver their goods just in time to the customer in the production network, or during interorganizational meetings or events, where organizations congregate to settle the future of their network. Building on Zilber (2014), our design proposes a selection of established techniques to do both: following objects on the one hand and capturing network enactments on the other. Specifically, we propose to conduct a combination of multi-site ethnography (following objects) and multiple, unspecific field stays at different locations, events, and/or organizations within the (presumed) network to increase the number of occasions to capture its enactment. Networks, not least by virtue of their size, make compromises in data collection necessary. Hence, for pragmatic reasons, these latter observations will tend to be short term, depending on the research team’s capacity to rely on one or more ethnographers. Therefore, to maximize the outcome of such short-term stays, it seems advisable to refer to the techniques used in focused ethnography (Imas & Weston, 2012; Knoblauch, 2005; Knoblauch & Schnettler, 2012; Nicolini, 2009). Focused ethnography does “not refer to a new program for doing ethnography” but “relate[s] to a range of ethnographies that are already in practice” to deal with short-term stays (Knoblauch, 2005, para 12). By *focused*, it is meant that researchers should look for opportunities and techniques to intensify the process of observation in spite of short timeframes, for example, by relying more on audiovisual recording devices, expanding the actual observation times during a short-term field stay, or supplementing field notes with transcripts. In the following, we review four techniques from focused and multi-sited ethnography to assist the process of *data collection* in interorganizational networks. From a mixed-method point of view, the necessity to rely on ethnographic techniques that fit with the specifics of networks is crucial as it prevents a potential over-reliance on the insights delivered by SNA.

Following Boundary Objects

The notion of boundary objects (Star, 2010; Star & Griesemer, 1989) applies to contexts with many heterogeneous actors and refers to artifacts, sites, or activities that maintain a sense of common identity among the participants in a field or endeavor. Following “something” has always been implicitly part of research work, not least of classical ethnography (Hannerz, 2003; Nicolini, 2009). In interorganizational contexts, following boundary objects moves toward the center of the research

design. Specifically, we propose to take inspiration from Marcus's (1995) seven suggestions for multi-site ethnography: (1) follow the people, (2) follow the thing, (3) follow the metaphor, (4) follow the plot or allegory, (5) follow the life and biography, (6) follow the conflict, (7) strategically situated single-site ethnography. *Following* implies flexibility in data collection, requiring the ethnographer's capacity to move from one site to another when it is deemed relevant (Hannerz, 2003) or to follow practices as such (Nicolini, 2009). Considering the purpose of our research design, we propose to follow network-enacting "objects," including people that, as boundary spanners, connect several organizations in a network. These objects, depending on the network, might be intraorganizational (e.g., as it is the case with managers in charge of network relations), or interorganizational (as it is the case with network administration organizations, or documents,¹ such as network roadmaps or patents), or a mix of both. Following objects offers a strong understanding of how individual and organizational activities contribute to or challenge the structuration of the interorganizational network.

Capturing Network Enactments

Interorganizational networks more often than not span a wealth of contexts, sites, and goals. However, a particular dimension that might make ethnographic work difficult is the frequency with which the network comes into existence: Some relationships are enacted relatively often via joint activities, while others unfold sporadically. The challenge of capturing those moments is twofold. First, one needs to be there when obvious network-related events or activities are taking place (e.g., meetings). This can be arranged easily as one becomes familiar enough to the participants during the fieldwork. Second, and perhaps more important, the network ethnographer needs to ensure that unplanned network enactments can be captured too. This, we argue, can be done via phases of open, unspecified observation at selected sites (e.g., at the network administration organization or the lead organization) involving spontaneous observations of network-related work and stand-by phases in between that can be used for other data collection purposes (e.g., interviewing). By "unspecified observation" we mean phases that do not rely on following any specific object or person. Instead, such phases might concern field-level events (e.g., conferences where network members might gather and organize informal ad hoc meetings), or the observation of production facilities at the interface of suppliers' deliveries and quality control, or cooperatives' distribution centers. From an ethnographic point of departure, it is important to "be there." Such observation phases constitute a practical compromise to increase the chances of capturing unplanned network enactments. In addition, "stand-by" phases (i.e., phases with little or no network enactment) offer opportunities to collect and triangulate the impressions of many participants about the network, hereby maximizing the internal validity of the research.

Settling specific guidelines for the selection of such sites would collide with the interpretative and contextualized focus of ethnography. Fieldwork could literally just start anywhere, depending on the research question and the *raison d'être* of the network. Typical processes of snowballing might then open up further interesting opportunities for such phases of open observation. Especially in this aspect, we see the strength of a convergent-parallel approach in data gathering because the observations and site selections will not and should not be guided by quantitative measures about the network. This point is particularly important because the ethnographer will need to discover, over time, how the participants enact network structures outside official meetings and gatherings. Relations might be lived out differently during casual, daily interactions than during formal meetings with contractual or strategic purposes and so explain how variation in the rules emerges over time.

For example, in the project we mentioned in the introduction,² we relied on particular strategies to intensify observation time and herewith increase our chances to capture network enactments.

First, our main ethnographer chose to stay longer days in the field (i.e., covering up to 24-hour shifts) during several short-term stays of observation. In contrast to conventional organizational ethnography, where it is typical to leave the field for the night (Bate, 1997; Eberle & Maeder, 2011), staying *in or near* the field for long, consecutive periods helped him to access situations of network enactment and observe the modalities of specific relations that we had not suspected in the first place. While our project deals with emergency management, many other fields and organizations make intense, up to 24-hour stays relevant (e.g., production facilities, logistic services, gastronomy, hospitals, airports, or critical infrastructures). In such cases, it might be of interest, as a compromise, to extend the observation time at one site while reducing the amount of days spent there, thus being able to spend more time at more sites. A second advantage of staying close to the network is the possibility to observe the network when unpredictable issues occur.

In this project, we also relied on voice recorders and audiovisual recording devices as another way of intensifying data collection to capture more insights during network enactments (Knoblauch, 2005; Smets, Burke, Jarzabkowski, & Spee, 2014). Recorded observations allow for capturing more of the field than what the researcher alone might hear, see, and memorize. In consequence, they helped us to add insights to the interpretation of the data. Moreover, the use of recording devices can speed up and assist the production of field notes (as the tapes can be transcribed later with more vocal and/or visual acuity), which in turn allows the researcher to increase the quality of observation time and his or her awareness of what is going on while operations or meetings with multiple organizations are running. Notwithstanding, network scholars are well advised not to rely too much on such devices, as the tolerance of each organization participating in the network will differ and ethical and legal difficulties must be taken into account with caution.

Being Everywhere: Multiplying Investigators

The presence of more than one ethnographer is not untypical in organizational ethnography (Creese, Bhatt, Bhojani, & Martin, 2008). More often than not, teams of ethnographers are involved in order to produce *more* data out of different contexts (see e.g., Barley, 1983). Such multiplying investigators can help tremendously to follow boundary objects while keeping track of new developments at other sites (Knoblauch, 2005). In addition, in networks with few joint activities and rare gatherings, multiple investigators can help intensify observations by combining their field notes, feelings, and impressions of the same situation, hereby doubling, tripling, or more the amount of observations. Here, too, multiplying investigators can also be complemented with the use of recording devices, in particular audiovisual, which allow for direct reproductions of multiple sites or multiple points of view (Gatson & Zweerink, 2004). However, teams in ethnography bring their own complications (Erickson & Stull, 1997; Mauthner & Doucet, 2008; Smets et al., 2014). In traditional ethnography, the researcher (and related perceptions and brainwork) is the instrument for research (Jarzabkowski et al., 2015). How, then, to make a collective experience out of fragmented observations and perceptions? In particular, independent of the research question, this strategy makes it necessary to coordinate roles and observation angles (Peshkin, 2001) and make sure that impressions, even physical ones, are shared regularly to inform future fieldwork (Jarzabkowski et al., 2015). Similarly, relying on recording devices can distort the situation, for example, when some of the people observed point at the camera to question the behavior of others in the room (Smets et al., 2014). Hence, to turn teamwork in the field into an opportunity for a more nuanced view and more innovative data collection in complex settings can become challenging without adequate, uninterrupted coordination work (Smets et al., 2014). To deal with this issue, in our project we maintained a constant team-based dialogue and reflection on differing views and interpretations when more than one of us were out in the field (Creese et al., 2008). In point of fact, as much as

with multiple methods (Onwuegbuzie, 2012), a team-based process with multiple perspectives can be a chance to broaden the view of the field and even surprise each other with differing insights. Therefore, team members should share not only their views constantly with each other but also discuss labels, impressions, and interpretations (Smets et al., 2014) and use this diversity for analysis to turn the team into an “interpretative zone” (Jarzabkowski et al., 2015). Since one cannot look at a network as it is in its totality, applying different perspectives can broaden one’s view and understanding.

Interviewing Repeatedly

Interviews have long been a prime source of data in research on interorganizational networks, both qualitative and quantitative (Wasserman, 1994). Structured or semi-structured interviews are not only a typical way to collect relational data for SNA but may also relate to situated conversations with actors in order to substantiate observations with complementary information. Typically, such conversations end in field notes in the form of memory-based transcriptions. As suggested in the preceding strategy, structured and semi-structured interviews can be easily scheduled during stand-by phases. In particular, semi-structured interviews are helpful to collect background information on the network, its participants, its structures, and its evolution—and to triangulate this information. Structured interviews on evaluating one’s relations to the other organizations, provided the network is sizeable (as relational data ought to be collected at a single point in time), are arguably the most reliable way to collect relational data for SNA as the researcher can ask for precise responses regarding the interviewees’ interpretations and assessments of their relations to each other. Typical questions target the interviewee’s relations to each known network participant, their frequency, and their quality and can also include nominal variables, such as the main driver of the relation (resources, expertise, commercial, etc.), or the mechanism ruling the relation (contract, contact, or both).

These kinds of interviews may be supplemented by ethnographic, narrative interviews conducted in the course of the ethnographic fieldwork. This interview form goes further than mere ad hoc conversations and starts with a simple, open question. Narrative interviews necessitate close, trustful relations to the people one observes. Specifically, it appears necessary to talk to the same person repeatedly (Spradley, 1979). While observations provide the juice of practice-based research, such conversations allow us to make sense of the importance of specific patterns of action with respect to their meaning for the person, the organization, and the network and to triangulate these interpretations. We are aware that these proposals are not new at all, but we see it as essential for network ethnography that the presented combination of interviews should not be optional but obligatory when collecting data in network ethnography.

Balancing Ethnography and Social Network Analysis

Building on a parallel-convergent research approach (Creswell & Plano-Clark, 2011), in the following we present a research design that *balances* ethnographic findings collected at multiple organizations with SNA. In this research design, ethnography provides deep insight into the study of social practices that account for a network’s emergence, structuration, and transformation over time, while SNA allows a more general understanding of the structural properties of the whole network as well as, if conducted at more than one point in time, indications about the relational dynamics in the network. Specifically, the research design we propose for network ethnography evolves along four steps (with an additional Step 0 to access the field). The interplay of each step, including data collection, is depicted in Figure 1.

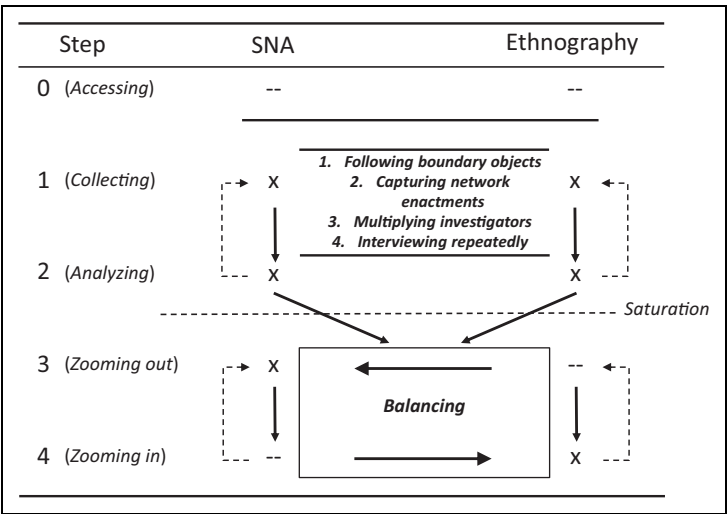


Figure 1. Toward a balancing research design.

Step 0: Accessing the Field

When accessing an interorganizational network, there are countless options to start investigations: ranging from via the organizations participating to any bi- or multilateral instances of cooperation. The main question often concerns the centrality of the organization one relies on at first. Contrary to intraorganizational settings, in which one begins with hierarchical relations, navigating bottom-up and/or up-bottom (Eberle & Maeder, 2011), research on interorganizational networks imperatively evolves working sideways. Obviously, research questions should remain the most important rationale. But access is often a matter of serendipity and chance. Nevertheless, it could be useful to do some scouting work, figuring out, for example, which organizations could be more central or peripheral in the network. Both ways, whether starting in a presumed central or in a presumed peripheral organization, could be useful. Starting at the (presumed) periphery might be an interesting strategy in supply networks, for example, following a product right from production to the stores. Nevertheless, we would recommend seeking access to central organizations, whether at the beginning or during fieldwork, since a failure to access the most powerful actors in the network could be problematic as it would provide only half of the network story. For example, in our own project on emergency management, we accessed the network via the fire and emergency department, one of the two centrally positioned organizations of the network. After a period of observations solely at this department, we eventually obtained access to other organizations as well and, even more important, to collective operations and meetings.

Step 1: Gather, Gather, Gather

The research design starts with a phase of parallel data collection and relies on the strategies introduced previously to intensify observations and increase the opportunities to capture network enactments. Once the question of access (Step 0) is clarified, Step 1 is about following objects of interest, making intensified field stays, and collecting exhaustive relational data about the network. Going from site to site contributes to becoming acquainted with more and more members of the interorganizational network (people and their organizations). Being acquainted with members of the network is a strong lever to get access to other organizations and/or gatekeepers. It is important to

note that even though ethnographic work might be the most demanding part of data collection temporally, the process of parallel data collection should include the development of instruments to gather relational data for SNA as well (e.g., via surveys, structured interviews, or documents for content analysis).

Step 2: Parallel Analyzing

This second step concerns preliminary analyses of data and evolves along two parallel tracks as well: SNA and ethnography. We propose conducting each analysis independently from the others, at least at the beginning. Doing so allows for more mutual questions to arise while reducing the fallacy of mutual bias. Quite obviously, we separate Steps 1 and 2 for analytical reasons. In reality, these steps are subject to many iterative loops as each analysis asks for more data and vice versa (see Figure 1). With respect to SNA, this step is about the development and analysis of a robust relational matrix about the participants in the network to gain descriptive properties of the network, such as degree of centrality, nature(s) of ties, closure, cliques, density, rationale for interactions, and so on. Ideally, depending on the timeframe, two or more collections of relational data could be useful in order to account for the network evolution more accurately (Human & Provan, 2000).

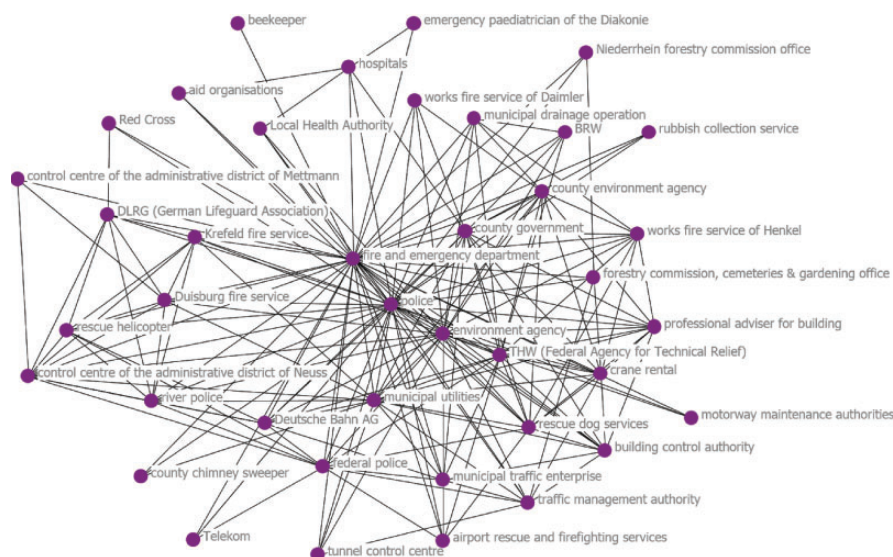
Against the background of our discussion on mixed methods and epistemology, it might also be relevant to engage in statistical analyses as well (Owen-Smith & Powell, 2004); not in an attempt to validate insights but to explore structural trends and their potential effect on the participants of the network as a whole. With respect to ethnography, this step is about openly coding the field notes and interviews, looking at activities that are recurrent, and developing first insights into the qualitative dimension of the interorganizational relations at hand. Generally speaking, this first analytical phase enjoins the researcher to become increasingly focused on qualitative data and to a growing extent on relational data in order to obtain an even more detailed view of the structural features of the entire network. Consider, for example, the research question we suggested previously: How do rules for the selection, retention, and rejection of network members emerge and evolve, and what impact do they have in turn on the development of the network? Addressing this question in the case of a global production network could occur via observations at interorganizational meetings or by following engineers as they move among suppliers to develop specific quality standards in joint endeavors. Similarly, relational data of the network, for example, based on the provenance of each component, would deliver interesting insights into second-tier suppliers and their role as focal firms in their own supplier network.

Step 3: Zooming Out

Building on the work by Nicolini (2009), Steps 3 and 4 integrate results from both SNA and ethnography in a balancing way. This effort should take place once one has reached saturation point. In terms of analysis, Step 3 takes a more general and structural view of the network under study. In this case, observations from ethnography begin informing SNA toward a joint analysis. Integrating qualitative and quantitative data is a challenge to any mixed-methods study (Fetters & Freshwater, 2015). Because of the epistemological underpinnings of practice theory, it appears crucial to remind the reader that SNA-based results, in this design, do not provide proofs for general theorization. Rather, they just provide a simplified depiction of the network participants' views about their network of relations. As stated previously, in the case of practice research on interorganizational networks, integrating SNA and fieldwork into one piece of research puts the concept of duality of structure and agency (Giddens, 1984) into methodological reality. The strategy underlying this step relies on making plausible accounts for links between observations in the field and insights gathered via SNA. More concretely, the researcher should look for reliable evidence in the data

One of our ethnographers joined Thomas and Jonas, firefighters, as they walked the streets before the procession event. Thomas and Jonas constituted one of a few observation groups scattered throughout the event. They made sure that employees from the private security firm were staffing all access points and looked for potential sources of danger around them. Reaching the center of the procession, they walked across the square and greeted the members of an emergency medical service (EMS) organization. They know each other well. Jonas needed rubber gloves; they gave him some. Many medical service camps had been set up, each of them run by a different EMS organization. And yet, in the strategic apex surveying the event, where another ethnographer of ours was conducting observations, only one EMS organization talked and represented all the others except from observations.

In some instances, the control over resources exerted by the broker in the network (here the fire and emergency department), was coupled with the emergence of additional brokers and drove the constitution of cooperative dynamics instead of mere competition. In the standard operating procedures issued by the members of the emergency management network, the EMS organizations were addressed as one group (with the exception of the Red Cross for IT-related reasons). What is more, their position in the network proved to be peripheral (upper left side of the figure below). And yet observations like the one above were frequent.



Fieldwork revealed that the EMS organizations were a partner of choice for the fire and emergency department (FED). Their operations showed how knowledgeable they were about their position in the network. Isolated from many planning activities, these organizations were, however, a useful resource for incident containment. And because of the central role of the FED in terms of resources (contracts, but also financing for vehicles, etc.) and the high degree of uncertainty about incidents and their magnitude, the EMS organizations constantly pooled their resources together to face unexpected demands better. For instance, our informant at the FED managing contractual relations for the emergency management revealed that the bids of the EMS organizations often relied on the resources of all the others as additional backups. Similarly, during observations conducted at the FED, rotations among liaison officers sent by EMS organizations aimed at simplifying coordination with and among them. These cooperative dynamics (i.e. the capacity to pool resources and act as one “virtual” organization) contribute to knitting this clique together tightly via the production of trust in the arrangements of the EMS organizations and their capacity to cope with unexpected events. This, in return, stabilized the dependence of the FED on these pooled resources. This finding challenges extant views on the role of structural holes as offering a strategic advantage.

Figure 2. Writing network ethnography: Coping with brokers.

gathered during the fieldwork (from our own experience, this is most likely to be found in interviews) to infer explicit rationales and implicit influences that explain specific structural patterns, their influence on agents, and their reflexivity about these phenomena. For example, the research

question, How do organizations leverage network effects to increase the external legitimacy of their network and its goal?, would be addressed in this step by collecting and contrasting relational data about members' interactions and insights into the history of their entry in the network (e.g., opted in by whom and via what broker?) One last question, then, would remain open: How do brokering organizations leverage rationales for entering their network? What are the recurrent activities that explain this phenomenon? To address this final aspect, we need to zoom in to a more robust coding of the practices of the participating organizations. In the case of our own project on emergency management, a facet of Step 3 implied comparing the SNA-based analysis for all three subnetworks and what we had observed over a period of almost two years in practice. For example, we found out that EMS organizations (like the Red Cross) were much more central in one of the subnetworks than in the other two. So we went back to our field notes to make sense of this structural finding. Comparing specific collective events, we identified the performance of a more nuanced role distribution than suggested by the ostensive one. The EMS organizations were less present in the planning for routine emergency response and of greater relevance in disaster response and the management of large-scale events, which explained the divergence in SNA-based results. Even more puzzling, while they were considered as one container of organizations by the participants of the network (especially by the focal organizations) and expected to work jointly during operations, they had to compete against each other for specific contracts. Thereby, mixing insights may be more than a matter of mutual confirmation and enhancement. Rather, mixing SNA and ethnography should serve the goal of developing a fine-grained understanding of the structures that regulate the network (in this case: modes of participation in collective work). Step 4, then, will address all remaining questions: How do the EMS organizations stabilize this ambivalent relationship to the network and each other, and how does this relate to their centrality?

Step 4: Zooming In

This last step, we argue, should unfold once the structural background of the network study has gained in clarity via Step 3. The main goal of Step 4 is to unearth the practices that account for the structural phenomena identified. The balancing approach we promote here culminates in the integration of both quantitative and qualitative studies in the form of an SNA-informed structural context and an ethnography-based description of related micro practices, namely, network ethnography. Looking for practices implies targeting actual, recurrent activities that contribute to the enactment, reinforcement, maintaining, and eventually changing of specific structural features (e.g., Pratt, 2000). A strategy of temporal bracketing would be most appropriate here (Langley, 1999) as it allows us to depict such influences by showing first the (micro) practices that enact (network) structures and then their impact on these structures over time (e.g., Jarzabkowski, 2008). Finally, similar to Step 3, researchers are well advised to get the maximum out of integrating qualitative and quantitative data by constructing plausible accounts of how the practices explain the results produced in Step 3. Considering the exemplary research questions we suggested previously, this last step would contribute to surfacing the recurrent activities that contribute to transfusing practices from second-tier organizations to other, distant participants of the network, and how these practices become rationales for selecting or opting partners out. With respect to the exemplary research question on network effects, this last step would be the occasion to contrast findings collected via SNA and the entry of new actors with the activities performed recurrently by the boundary spanners in charge of network relations, or by the network administration organization, to facilitate meetings, increase the presence of the network in its field, and undermine access to critical resources to competing networks by pulling in key stakeholders.

In the case of our own project, a facet of Step 4 implied understanding the process by which the emergency medical service organizations manage their ambivalent relationship to each other and the

network. Structural inquiry had shown how the group of emergency medical service organizations were partly excluded from planning work, were expected to act as “one organization” during incidents, and yet had to compete for contracts for medical emergency services at large-scale events and resources held by the fire and emergency department. Here, our analysis focused narrowly on the material gathered during fieldwork that recorded how agents reflexively enacted structural features and acted on them. First, we found that the emergency medical service organizations pooled their resources to offer more capacity for contracts and bids for medical emergency services at large-scale events against other private sector providers (even the Red Cross, the largest among emergency medical service organizations, had difficulty finding 200 skilled persons to work at one event). Pooling resources generated more flexibility in their capacity to address unexpected events when resources were already deployed elsewhere. Pooling resources also contributed to reinforcing the ties among these organizations on a daily basis and explained why the rest of the network would consider the emergency medical service organizations as one group. What is more, during large-scale events, the emergency medical service organizations communicated with each other as one group, in spite of different logos and uniforms. To ease this unifying process, they referred to the sectors each of them was supervising instead of naming their organizations. Also, all mobile units and vehicles responded to a numerical code name instead of their organizational affiliation. Finally, the emergency medical service organizations would send only one liaison officer to attend network meetings—even in other contexts like disaster response operations. This liaison officer changed every two weeks to rotate among the emergency medical service organizations. In Figure 2, we show an example weaving together SNA- and fieldwork-based insights in writing.

Discussion and Conclusion

This article introduces a mixed-method research design that allows for a study of social practices in large and often elusive interorganizational networks, that is: network ethnography. Only few would doubt that research on social practices is best served by ethnographic techniques. With whole interorganizational networks, however, the task becomes difficult because of their size and often informal, elusive nature. We have therefore combined a set of ethnographic techniques to apply ethnography in interorganizational networks and to integrate it with traditional SNA techniques as a way to obtain deeper knowledge about micro practices of networks while addressing their breadth at the same time. Our goal is to achieve a mixed-method approach to show more aptly how micro practices are influenced by their relational and structural context and how these practices in turn contribute to the stability and/or changes in the whole network. The research design we introduce follows four ethnographic techniques (from following boundary objects to seeing secondary material differently) and builds on four main steps (gathering, parallel analyzing, zooming out, and zooming in) toward the integration of SNA and ethnographic fieldwork to produce findings on the duality of structure and agency in network-related practices.

The article makes several contributions to the literature on interorganizational networks and their management, organizational research methods, and mixed methods. First, it contributes to research on interorganizational networks. Studying social practices has become vastly popular in management and organization studies but has not yet reached research on interorganizational networks. Studying whole networks (Provan et al., 2007) implies an interest in the functioning of interorganizational networks as a form of organizing. As detailed previously, important issues as diverse as network governance modes (Provan & Kenis, 2008) or whole-network management (Saz-Carranza & Ospina, 2011) have emerged in recent years, opening the way to the study of micro practices that are characteristic of such networks. These research opportunities, however, are still in need of an appropriate research methodology, comparable to the ethnographic approach that is typical for practice-based research in organization and management studies. The article specifically addresses

and tries to overcome the difficulties of researching multiple sites *in situ* by compensating with other research strategies: intensifying field observations and engaging in mixed methods, in particular combining ethnographic field work with SNA, culminating in research findings on micro practices, how they are enabled and constrained by network structures and at the same time help to reproduce or transform these structures (Giddens, 1984). At this point, it is important to stress that the proposed mixed-method design remains at a general, adaptive level to avoid any dogmatic pitfalls. Not all research access will allow such a level of intrusion by researchers. The research design we propose is therefore no more than a first step toward more practice-based research, constituting a basis for reflection on further methodological inquiries into social practices and interorganizational networks. For example, further research could substantiate this research design with even more techniques, depending on how “micro” one needs to go in terms of practices, or to compensate for limited access to the network. In a similar vein, future studies could contribute toward expanding this design with more longitudinal considerations in order to explore the relations between practices and network structuration in the long run.

A second contribution concerns the use of ethnography at the level of whole networks. In order to propose a balanced mixed-method research design, informed by both SNA and ethnographic fieldwork, it was necessary to review and combine extant ethnographic techniques that are apt at unpacking social dynamics in multi-sited, interorganizational networks. Ethnographic research in such settings represents a challenge as the sites may be extremely numerous, the ties multiplex, and their existence nevertheless sporadic. What is more, a network is not necessarily “there” constantly, as compared to an organization with dedicated office spaces, employees, legal existence, and so on. The research design we propose offers guidelines to cope with this complex and fluid situation and to find compromises to balance the depth of ethnography with the width necessary to tackle a network. Specifically, our approach recognizes that it is impossible to conduct extensive fieldwork at every site and makes this fact a starting point from which ethnography needs to be reinvented. In general terms, we advocate the breadth and depth argument: Drill deep in some sites and get breadth with the help of SNA. Specifically, we propose, for example, that observation phases should be intensified to gather more data during short time periods and herewith visit more sites. We have also suggested following boundary objects to move among the sites. Finally, we recommended relying on SNA to get a clearer picture of the overall network, particularly in networks of a complex nature. This last proposal expands extant research designs in multi-sited ethnography (Zilber, 2014). These methodological advances, however, are not meant to become standards. Instead, we aim at provoking a discussion on how to develop ethnography in (inter)organizational contexts that stretch across multiple sites—a point that might even be of interest to research on single organizations acting in multiple spaces at the same time, such as multinational corporations, proprietary distribution networks, and so on.

Last but not least, a third contribution concerns the integration of SNA and ethnography into one mixed-method research design. Mixed-method research is often based on diachronic designs, with a qualitative exploration validated quantitatively or a quantitative exploration detailed qualitatively, which is only half the story of mixed methods as a research paradigm (Molina-Azorin, 2012). In this article, we propose a research design that sheds light on the integration of SNA and ethnography toward mutually improving findings. We have discussed the implications of such a proposal in terms of epistemology. SNA (and related descriptive and/or multivariate statistics about the network) and ethnography (and related narratives) are often seen as two methodological approaches that are diametrically opposed. And yet anthropology, with its focus on direct observations, originally contributed to the groundwork in network analysis methods to better map social network dynamics that were too complex for the observers (see e.g., Marsden, 1990). These approaches, we argued, can be mobilized jointly in the realm of the “radical middle” proposed by Onwuegbuzie (2012). From this point of view, each method must be detached from its usual paradigms to contribute jointly with

insights about the same phenomenon (with respect to SNA, see Kilduff & Tsai, 2003). Turning toward a structurationist background in practice-based research in interorganizational networks, we argue, helps to concretize this idea. Specifically, the duality of structure and agency provides a guiding element for integration in data analysis by bridging otherwise conflicting dimensions (structure/agency, functionalism/interpretivism). Clarifying this position beforehand has an impact on how each technique, SNA or ethnography, is being enacted in the study, how we ought to interpret results, and how we write about these results. We therefore recommend that the work of collecting and analyzing data for SNA and ethnography should start in a parallel fashion to maximize the potential for mutual enrichment later on. By keeping the two separate to begin with, one ensures that the relational context will be depicted while interpretive issues will be debunked without (too much) bias.

This parallel-convergent design, however, opens the way for further work based on other projects and data sets. Further research on network ethnography could contribute to illuminating varying degrees of balancing between ethnography and SNA, depending on the research questions or objects of study. Similarly, future studies could unpack limits to balancing and reflect on whether it is necessary to maintain a strict parallel design under all circumstances. The research design we propose should not be read too dogmatically, therefore. Instead, we hope it will help to trigger more research on social practices in interorganizational networks, more reflections on how to conduct ethnography in dispersed institutional arrangements, and more deliberation about how to make organizational research methods think outside the box and introduce even more unusual methodological mixes as long as this serves the exploration of new organizational dimensions that have hitherto remained unpacked.

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Notes

1. Networks often produce a wealth of documents that help to coordinate their development. Following the emergence of such documents or how they are being enacted in varying partnering organizations might be a relevant strategy in many contexts and fields. In addition, relying on network documents can provide a wealth of data for social network analysis (SNA) purposes (e.g., Owen-Smith & Powell, 2004).
2. In this project, we conducted ethnographic fieldwork at an interorganizational emergency response network consisting of over 80 organizations in the city of Düsseldorf, Germany. Specifically, the network builds on three subnetworks, dedicated, respectively, to managing routine emergencies, unexpected crises, and the preparation of large-scale events. During emergencies, every operation relies on collaboration under the formal leadership of the fire and emergency service. Thereby, the network evolves incident after incident.

Between incidents, managing this network is more complex as cooperation relies on non-mandated, informal planning work and meetings.

References

- Adams, J. S. (1980). Interorganizational processes and organizational boundary activities. *Research in Organizational Behavior*, 2, 321-355.
- Ariño, A., & de la Torre, J. (1998). Learning from failure: Towards an evolutionary model of collaborative ventures. *Organization Science*, 9, 306-325.
- Balogun, J., Huff, A. S., & Johnson, P. (2003). Three responses to the methodological challenges of studying strategizing. *Journal of Management Studies*, 40, 197-224.
- Barley, S. R. (1983). Semiotics and the study of occupational and organizational cultures. *Administrative Science Quarterly*, 28, 393-413.
- Barley, S. R., & Tolbert, P. S. (1997). Institutionalization and structuration: Studying the links between action and institution. *Organization Studies*, 18, 93-117.
- Bate, S. P. (1997). Whatever happened to organizational anthropology? A review of the field of organizational ethnography and anthropological studies. *Human Relations*, 50, 1147-1175.
- Berends, H., van Burg, E., & van Raaij, E. M. (2011). Contacts and contracts: Cross-level network dynamics in the development of an aircraft material. *Organization Science*, 22, 940-960.
- Borgatti, S., Mehra, A., Brass, D., & Labianca, G. (2009). Network analysis in the social sciences. *Science*, 323, 892-895.
- Borgerhoff-Mulder, M., & Caro, T. M. (1985). The use of quantitative observational techniques in anthropology. *Current Anthropology*, 26, 323-335.
- Brannen, J. (2005). Mixing methods: The entry of qualitative and quantitative approaches into the research process. *International Journal of Research Methodology*, 8, 173-184.
- Brown, J. S., & Duguid, P. (2001). Knowledge and organization: A social-practice perspective. *Organization Science*, 12, 198-213.
- Burawoy, M. (Ed.). (2000). *Global ethnography: Forces, connections, and imaginations in a postmodern world*. Berkley: University of California Press.
- Burawoy, M. (2001). Manufacturing the global. *Ethnography*, 2, 147-159.
- Creese, A., Bhatt, A., Bhojani, N., & Martin, P. (2008). Fieldnotes in team ethnography: Researching complementary schools. *Qualitative Research*, 8, 197-215.
- Creswell, J. W. (2014). *Research design. Qualitative, quantitative, and mixed methods approaches* (4th ed.). Thousand Oaks, CA: Sage.
- Creswell, J. W., & Plano Clark, V. (2011). *Designing and conducting mixed methods research*. Los Angeles, CA: Sage.
- Cross, J. E., Dickmann, E., Newman-Gonchar, R., & Fagan, J. M. (2009). Using mixed-method design and network analysis to measure development of interagency collaboration. *American Journal of Evaluation*, 30, 310-329.
- Crossley, N. (2010). The social world of the network: Combining qualitative and quantitative elements in social network analysis. *Sociologica*, 1, 1-34.
- Cunliffe, A. L. (2010). Retelling tales of the field: In search of organizational ethnography 20 years on. *Organizational Research Methods*, 13, 224-239.
- Currie, G., & White, L. (2012). Inter-professional barriers and knowledge brokering in an organizational context: The case of healthcare. *Organization Studies*, 33, 1333-1361.
- Daft, R. L., & Lewin, A. Y. (1993). Where are the theories for the "new" organizational forms? *Organization Science*, 4, i-vi.
- Delgado, N. A., & Cruz, L. B. (2014). Multi-event ethnography: Doing research in pluralistic settings. *Journal of Organizational Ethnography*, 3, 43-58.
- Denzin, N. K. (1970). *The research act*. Chicago, IL: Aldine.

- Dittrich, K., Duysters, G., & de Man, A.-P. (2007). Strategic repositioning by means of alliance networks: The case of IBM. *Research Policy*, 36, 1496-1511.
- Eberle, T. S., & Maeder, C. (2011). Organizational ethnography. In D. Silverman (Ed.), *Qualitative research. Issues of theory, method, and practice* (3rd ed., pp. 53-73). Los Angeles, CA: Sage.
- Edmondson, A. C., & McManus, S. E. (2007). Methodological fit in management field research. *Academy of Management Review*, 32, 1155-1179.
- Erickson, K. C., & Stull, D. D. (1997). *Doing team ethnography: Warnings and advice*. Thousand Oaks, CA: Sage.
- Falzon, M.-A. (2009). *Multi-sited ethnography: Theory, praxis and locality in contemporary social research*. Farnham, UK: Ashgate Publishing.
- Feldman, M., & Orlikowski, W. (2011). Theorizing practice and practicing theory. *Organization Science*, 22, 1240-1253.
- Feldman, M., & Pentland, B. (2003). Reconceptualizing organizational routines as a source of flexibility and change. *Administrative Science Quarterly*, 48, 94-118.
- Fetters, M. D., & Freshwater, D. (2015). The 1+1=3 integration challenge. *Journal of Mixed Methods Research*, 9, 115-117.
- Gatson, S., & Zweerink, A. (2004). Ethnography online: "Natives" practising and inscribing community. *Qualitative Research*, 4, 179-200.
- Giddens, A. 1984. *The constitution of society—Outline of the theory of structuration*. Cambridge, MA: Polity.
- Gille, Z., & Riain, S. O. (2002). Global ethnography. *Annual Review of Sociology*, 28, 271-295.
- Golden-Biddle, K., & Locke, K. (1993). Appealing work: An investigation of how ethnographic texts convince. *Organization Science*, 4, 595-616.
- Hannerz, U. (2003). Being there ... and there ... and there!: Reflections on multi-site ethnography. *Ethnography*, 4, 201-216.
- Howard, P. (2002). Network ethnography and the hypermedia organization: New media, new organizations, new methods. *New Media & Society*, 4, 550-574.
- Human, S. E., & Provan, K. G. (1997). An emergent theory of structure and outcomes in small-firm strategic manufacturing networks. *Academy of Management Journal*, 40, 368-403.
- Human, S. E., & Provan, K. G. (2000). Legitimacy building in the evolution of small-firm multilateral networks: A comparative study of success and demise. *Administrative Science Quarterly*, 45, 327-365.
- Imas, J. M., & Weston, A. (2012). From Harare to Rio de Janeiro: Kukiya-Favela organization of the excluded. *Organization*, 19, 205-227.
- Isett, K. R., Mergel, I. A., LeRoux, K., Mischen, P. A., & Rethemeyer, R. K. (2011). Networks in public administration scholarship: Understanding where we are and where we need to go. *Journal of Public Administration Research and Theory*, 21, 157-173.
- Jarillo, J. C. (1988). On strategic networks. *Strategic Management Journal*, 9, 31-41.
- Jarzabkowski, P. (2008). Shaping strategy as a structuration process. *Academy of Management Journal*, 51, 621-650.
- Jarzabkowski, P., Balogun, J., & Seidl, D. (2007). Strategizing: The challenge of a practice perspective. *Human Relations*, 60, 5-27.
- Jarzabkowski, P., Bednarek, R., & Cabantous, L. (2015). Conducting global team-based ethnography: Methodological challenges and practical methods. *Human Relations*, 68, 3-33.
- Jarzabkowski, P. A., Bednarek, R., & Lê, J. K. (2014). Producing persuasive findings: Demystifying ethnographic textwork in strategy and organization research. *Strategic Organization*, 12, 274-287.
- Jeffrey, B., & Troman, G. (2004). Time for ethnography. *British Educational Research Journal*, 30, 535-548.
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33, 14-26.

- Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Towards a definition of mixed methods research. *Journal of Mixed Methods Research, 1*, 112-133.
- Kellogg, L., Orlikowski, W., & Yates, J. (2006). Life in the trading zone: Structuring coordination across boundaries in postbureaucratic organizations. *Organization Science, 17*(1), 22-44.
- Kenis, P., & Knoke, D. (2002). How organizational field networks shape interorganizational tie-formation rates. *Academy of Management Review, 27*, 275-293.
- Kilduff, M., & Tsai, W. (2003). *Social networks and organizations*. London: Sage.
- Knight, L., & Pye, A. (2005). Network learning: An empirically derived model of learning by groups of organizations. *Human Relations, 58*, 369-392.
- Knights, D., Murray, F., & Willmott, H. (1993). Networking as knowledge work: A study of strategic inter-organizational development in the financial services industry. *Journal of Management Studies, 30*, 975-995.
- Knoblauch, H. (2005). Focused ethnography. *Forum: Qualitative Social Research, 6*, Article 44.
- Knoblauch, H., & Schnettler, B. (2012). Videography: Analysing video data as a "focused" ethnographic and hermeneutical exercise. *Qualitative Research, 12*, 334-356.
- Krueathep, W., Riccucci, N., & Suwanmala, C. (2010). Why do agencies work together? The determinants of network formation at the subnational level of government in Thailand. *Journal of Public Administration Research and Theory, 20*, 157-185.
- Langan-Fox, J., & Cooper, G. L. (Eds.). (2014). *Network, influence and conflict*. London: Routledge.
- Langley, A. (1999). Strategies for theorizing from process data. *Academy of Management Review, 24*, 691-710.
- Lounsbury, M., & Crumley, E. T. (2007). New practice creation: An institutional perspective on innovation. *Organization Studies, 28*, 993-1012.
- Majchrzak, A., Jarvenpaa, S. L., & Bagherzadeh, M. 2015. A review of interorganizational collaboration dynamics. *Journal of Management, 41*, 1338-1360.
- Marcus, G. E. (1995). Ethnography in/of the world system: The emergence of multi-sited ethnography. *Annual Review of Anthropology, 24*, 95-117.
- Marsden, P. V. (1990). Network data and measurement. *Annual Review of Sociology, 16*, 435-463.
- Mauthner, N. S., & Doucet, A. (2008). Knowledge once divided can be hard to put together again: An epistemological critique of collaborative and team-based research practices. *Sociology, 42*, 971-985.
- Mertens, D. M. (2011). Publishing mixed methods research. *Journal of Mixed Methods Research, 5*, 3-6.
- Miettinen, R., Samra-Fredericks, D., & Yanow, D. (2009). Re-turn to practice: An introductory essay. *Organization Studies, 30*, 1309-1327.
- Molina-Azorin, J. F. (2012). Mixed methods research in strategic management: Impact and applications. *Organizational Research Methods, 15*, 33-56.
- Moliterno, T., & Mahony, D. (2011). Network theory of organization: A multilevel approach. *Journal of Management, 37*, 443-467.
- Moynihan, D. (2009). The network governance of crisis response: Case studies of incident command systems. *Journal of Public Administration Research and Theory, 19*, 895-915.
- Neyland, D. (2008). *Organizational ethnography*. Los Angeles, CA: Sage.
- Nicolini, D. (2009). Zooming in and out: Studying practices by switching theoretical lenses and trailing connections. *Organization Studies, 30*, 1391-1418.
- Nicolini, D. (2011). Practice as the site of knowing: Insights from the field of telemedicine. *Organization Science, 22*, 602-620.
- Onwuegbuzie, A. J. (2012). Putting the MIXED back into quantitative and qualitative research in educational research and beyond: Moving towards the radical middle. *International Journal of Multiple Research Approaches, 6*, 192-219.
- Orlikowski, W. J. (2002). Knowledge in practice: Enacting a collective capability in distributed organizing. *Organization Science, 13*, 249-273.
- Orlikowski, W., & Yates, J. (1994). Genre repertoire: The structuring of communicative practices in organizations. *Administrative Science Quarterly, 39*, 541-574.

- Owen-Smith, J., & Powell, W. W. (2004). Knowledge networks as channels and conduits: The effects of spillovers in the Boston biotechnology community. *Organization Science*, 15, 5-21.
- Palinkas, L., Holloway, I., Rice, E., Fuentes, D., Wu, Q., & Chamberlain, P. (2011). Social networks and implementation of evidence-based practices in public youth-serving systems: A mixed-methods study. *Implementation Science*, 6, 1-11.
- Paquin, R. L., & Howard-Grenville, J. (2013). Blind dates and arranged marriages: Longitudinal processes of network orchestration. *Organization Studies*, 34, 1623-1653.
- Park, H., & Kluver, R. (2009). Trends in online networking among South Korean politicians—A mixed-method approach. *Government Information Quarterly*, 26, 505-515.
- Peshkin, A. (2001). Angles of vision: Enhancing perception in qualitative research. *Qualitative Inquiry*, 7, 238-253.
- Pfeffer, J. (1993). Barriers to the advance of organizational science: Paradigm development as a dependent variable. *Academy of Management Review*, 18, 599-620.
- Pfeffer, J. (1995). Mortality, reproducibility, and the persistence of styles of theory. *Organization Science*, 6, 681-686.
- Powell, W. (1990). Neither market nor hierarchy: Network forms of organization. *Research in Organizational Behavior*, 12, 295-336.
- Powell, W., Koput, K., Bowie, J., & Smith-Doerr, L. (2002). The spatial clustering of science and capital: Accounting for biotech firm-venture capital relationships. *Regional Studies*, 36, 291-305.
- Powell, W., Packallen, K., & Whittington, K. (2012). Organizational and institutional genesis: The emergence of high-tech clusters in the life sciences. In J. F. Padgett & W. W. Powell (Eds.), *The emergence of organizations and markets* (pp. 434-465). Princeton, NJ: Princeton University Press.
- Pozzebon, M., & Pinsonneault, A. (2005). Challenges in conducting empirical work using structuration theory: Learning from IT research. *Organization Studies*, 26, 1353-1376.
- Pratt, M. G. (2000). The good, the bad, and the ambivalent: Managing identification among Amway distributors. *Administrative Science Quarterly*, 45, 456-493.
- Pratt, M. G. (2009). For the lack of a boilerplate: Tips on writing up (and reviewing) qualitative research. *Academy of Management Journal*, 52, 856-862.
- Provan, K. G., & Kenis, P. N. (2008). Modes of network governance: Structure, management, and effectiveness. *Journal of Public Administration Research and Theory*, 18, 229-252.
- Provan, K. G., & Milward, H. B. (1995). A preliminary theory of interorganizational network effectiveness: A comparative study of four community mental health systems. *Administrative Science Quarterly*, 40, 1-33.
- Provan, K. G., Fish, A., & Sydow, J. (2007). Interorganizational networks at the network level: A review of empirical literature on whole networks. *Journal of Management*, 33, 479-516.
- Provan, K. G., & Lemaire, R. H. (2012). Core concepts and key ideas for understanding public sector organizational networks: Using research to inform scholarship and practice. *Public Administration Review*, 72, 638-648.
- Raab, J., & Kenis, P. (2009). Heading towards a society of networks: Empirical developments and theoretical challenges. *Journal of Management Inquiry*, 18, 198-210.
- Raab, J., & Milward, H. B. (2003). Dark networks as problems. *Journal of Public Administration Research and Theory*, 13, 413-439.
- Rice, E., Holloway, I. W., Barman-Adhikari, A., Fuentes, D., Hendricks Brown, C., & Palinkas, L. A. (2014). A mixed methods approach to network data collection. *Field Methods*, 26, 252-268.
- Ring, P. S., & Van De Ven, A. H. (1994). Developmental processes of cooperative interorganizational relationships. *Academy of Management Review*, 19, 90-118.
- Rouleau, L., de Rond, M., & Musca, G. (2014). From the ethnographic turn to new forms of organizational ethnography. *Journal of Organizational Ethnography*, 3, 2-9.

- Saz-Carranza, A., & Ospina, S. (2011). The behavioral dimension of governing interorganizational goal-directed networks—Managing the unity-diversity tension. *Journal of Public Administration Research and Theory, 21*, 327-365.
- Schatzki, T. R. (2001). Introduction: Practice theory. In T. R. Schatzki, K. Knorr-Cetina, & E. von Savigny (Eds.), *The practice turn in contemporary theory* (pp. 1-14). London: Routledge.
- Schatzki, T. R. (2007). Introduction. *Human Affairs, 17*, 97-100.
- Schwandt, T. A. (2000). Three epistemological stances for qualitative inquiry. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 189-213). Thousand Oaks, CA: Sage.
- Schwartzman, H. B. (1993). *Ethnography in organizations*. Newbury Park, CA: Sage.
- Schweinberger, M., Petrescu-Prahova, M., & Vu, D. Q. (2014). Disaster response on September 11, 2001 through the lens of statistical network analysis. *Social Networks, 37*, 42-55.
- Scott, J. (2000). *Social network analysis: A handbook*. London: Sage.
- Simpson, B. (2009). Pragmatism, Mead and the practice-turn. *Organization Studies, 30*, 1329-1347.
- Smets, M., Burke, G. T., Jarzabkowski, P., & Spee, P. (2014). Charting new territory for organizational ethnography: Insights from a team-based video ethnography. *Journal of Organizational Ethnography, 3*, 10-26.
- Smith, S. S. (in press). A three-step approach to exploring ambiguous networks. *Journal of Mixed Methods Research*.
- Snijders, T. A. B., van de Bunt, G. G., & Steglich, C. E. G. (2010). Introduction to stochastic actor-based models for network dynamics. *Social Networks, 32*, 44-60.
- Spradley, J. (1979). *The ethnographic interview*. Belmont, CA: Wadsworth.
- Star, S. (2010). This is not a boundary object: Reflections on the origin of a concept. *Science, Technology & Human Values, 35*, 601-617.
- Star, S., & Griesemer, J. (1989). Institutional ecology, “translations” and boundary objects: Amateurs and professionals in Berkeley’s museum of vertebrate zoology. *Social Studies of Science, 19*, 387-420.
- Stern, R. (1979). The development of an interorganizational control network: The case of intercollegiate athletics. *Administrative Science Quarterly, 24*, 242-266.
- Sydow, J. (2004). Network development by means of network evaluation? Explorative insights from a case in the financial services industry. *Human Relations, 57*, 201-220.
- Sydow, J., & Windeler, A. (1998). Organizing and evaluating interfirm networks: A structurationist perspective on network processes and effectiveness. *Organization Science, 9*, 265-284.
- Vaara, E., & Whittington, R. (2012). Strategy-as-practice: Taking social practices seriously. *Academy of Management Annals, 6*, 285-336.
- Van de Ven, A. H. (1976). On the nature, formation and maintenance of relations among organizations. *Academy of Management Review, 1*, 24-36.
- Van Maanen, J. (1988). *Tales of the field: On writing ethnography*. Chicago, IL: University of Chicago Press.
- Van Maanen, J. (1995). Style as theory. *Organization Science, 6*, 133-143.
- Van Maanen, J. (2010). A song for my supper: More tales of the field. *Organizational Research Methods, 13*, 240-255.
- Wasserman, S. (1994). *Social network analysis: Methods and applications*. Cambridge, UK: Cambridge University Press.
- Watson, T. J. (2011). Ethnography, reality, and truth: The vital need for studies of “how things work” in organizations and management. *Journal of Management Studies, 48*, 202-217.
- Weaver, G. R., & Gioia, D. A. (1994). Paradigms lost: Incommensurability vs. structurationist inquiry. *Organization Studies, 15*, 565-589.
- Whittington, R. (2006). Completing the practice turn in strategy research. *Organization Studies, 27*, 613-634.
- Whittington, R. (2011). The practice turn in organization research: Towards a disciplined transdisciplinarity. *Accounting, Organization and Society, 36*, 183-186.

- Williams, T., & Shepherd, D. A. (in press). Mixed method social network analysis: Combining inductive concept development, content analysis, and secondary data for quantitative analysis. *Organizational Research Methods*.
- Windeler, A., & Sydow, J. (2001). Project networks and changing industry practices: Collaborative content production in the German television industry. *Organization Studies*, 22, 1035-1060.
- Yanow, D. (2009). Organizational ethnography and methodological angst: Myths and challenges in the field. *Qualitative Research in Organizations and Management*, 4, 186-199.
- Ybema, S., Yanow, D., Wels, H., & Kamsteeg, F. (Eds.). (2009). *Organizational ethnography: Studying the complexities of everyday life*. Thousand Oaks, CA: Sage.
- Zilber, T. B. (2014). Beyond a single organization: Challenges and opportunities in doing field level ethnography. *Journal of Organizational Ethnography*, 3, 96-113.
- Zwijze-Koning, K. H., & de Jong, M. D. T. (2005). Auditing information structures in organizations: A review of data collection techniques for network analysis. *Organizational Research Methods*, 8, 429-453.

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