

Leadership Dynamics in Complex Governance Systems: A Relational Perspective

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Multi-actor governance, in which a broad mix of actors collaborates to deal with complex societal problems, requires a leadership approach that can take into account the dynamic interdependencies between the involved actors. A relational approach to leadership, focusing on processes and practices, is more adequate for that purpose than approaches focusing on individuals and positions. Complexity leadership theory offers such a relational approach to leadership within organizations. In this article, we use complexity leadership theory to capture the emergent leadership processes between organizations. We focus on the characteristics of the informal relations between representatives of different organizations that enable dealing with the often-conflicting goals and values in multi-actor governance. The case of a landfill mining initiative for sustainable materials governance is used as an illustration to clarify the main concepts and arguments.

Keywords: Relational Approach; Inter-Organizational Collaboration; Multi-Actor Governance; Complexity Leadership Theory; Landfill Mining

INTRODUCTION: COMPLEXITY AND MULTI-ACTOR GOVERNANCE

Because of the increasing complexity of contemporary society and the erosion of existing institutions, the attention of policy makers has turned to participatory modes of governance (Rhodes 1996; Osborne 2006). They increasingly try to address complex societal issues with a collaborative multi-actor approach (Gray and Purdy 2018; Ansell and Gash 2007; Lowndes and Skelcher 1998; Vangen et al. 2015). A multi-actor governance (MAG) approach accepts non-governmental actors taking diverse steering initiatives through formal and informal interactions to find innovative solutions for complex societal problems and to develop policies collaboratively (Huxham 2000b; Johnson and Wilson 2000). The approach stimulates processes of self-regulation and reduces government control; hence, new roles for private and public actors and new forms of leadership are required (Vangen and Huxham 2003; Sydow et al. 2011; Sullivan et al. 2012).

The complexity of the task, the network configurations, and the dynamic interdependencies between actors produce specific leadership challenges. While the huge volume of research on leadership in management and organization studies is still focused on individual characteristics of hierarchical leaders in single organizations (Bass 1999; Harding et al. 2011), research on leadership in MAG is less developed. The very idea of collaborative processes, in which stakeholders jointly take key decisions in non-hierarchical networks, seems to have side-tracked leadership as a topic in the research on multi-actor collaboration (Huxham and Vangen 2005). A strong performance management culture continues to attribute leadership to a limited number of people who are perceived to be accountable for outcomes and results. However, the complexity of the task and the dynamic interdependencies between different types of actors involved in multi-actor governance present specific leadership challenges, including the presence of multiple leaders (Sydow et al. 2011). We therefore advocate in this article a relational approach to leadership for collaborative governance, with a focus on processes and relational practices instead of on individuals. A relational approach to leadership replaces the idea that leadership results out of the actions of an individual leader with the view that leadership emerges from the interactions between persons, groups, and organizations (Cunliffe and Eriksen 2011). Complexity leadership theory (CLT) offers such a relational approach to leadership and identifies different types of leadership within organizations (Uhl-Bien 2006; Fairhurst and Uhl-Bien 2012). We demonstrate in this article that CLT is as well highly relevant to analyze emergent leadership and collaboration between organizations by focusing on the relational characteristics of the interactions between representatives of these organizations.

Relational leadership has been the subject of multi-paradigmatic approaches. Some approaches can be considered as “entitative” (post-positivist) and others as “constructionist” (Uhl-Bien and Ospina 2012). Entitative approaches describe traits, patterns, and characteristics of leadership interactions, while constructionist approaches document relational leadership practices in ongoing interactions. Especially for the multi-voiced and varied work contexts of multi-actor governance, a paradigm interplay approach may be very contributive to new discoveries. This article has the intention to contribute to relational leadership research that transforms the aspiration for methodological pluralism from a philosophical longing to a pragmatic concern: The need to advance the theoretical and practical understandings of the complex social realities of leadership.

In what follows, we first indicate the specific relational challenges for group development in MAG. Then, we explain the relational action logics of leadership to deal with these challenges and demonstrate the relevance of the different leadership functions, identified by CLT, for MAG. The integration of the former parts in the final section results in suggestions for further research about leadership for MAG. We clarify our arguments with illustrations from a real life

case of landfill mining for sustainable materials governance (Craps and Sips 2010; Sips et al. 2013).

GROUP DEVELOPMENT IN MULTI-ACTOR GOVERNANCE

The field of leadership research has traditionally been leader-centric, focusing on individuals, their activities, characteristics, and competences (Dachler and Hosking 1995; Sullivan et al. 2012). By contrast, a relational approach to leadership does not look at individual leaders but at how leadership is enacted in emergent or existing leadership relations. It is primarily concerned with where, how, and why leadership work is being organized and accomplished, rather than with who is offering visions for others to do the work (Raelin 2011; Cunliffe and Eriksen 2011; Crevani et al. 2010; Uhl-Bien 2006). The term ‘relational’ refers to a view on leadership “that emanates from the rich connections and interdependencies of organizations and their members” (Hosking 2006). Without denying the importance for MAG of the structural characteristics of interactions between organizations at macro-level, the relational approach that we advocate here is focused on micro-level practices in concrete settings of inter-organizational relations. It is indeed in these micro-contexts that meanings are generated by interacting individuals that may possibly change conditions at the macro-level (Sullivan et al. 2012).

A group development process unfolds among MAG participants in these micro-meetings as they try to solve the problems at hand (Bouwen and Taillieu 2004). They are confronted with the challenges of dependence, counter-dependence, and interdependence, similar to the phases described in group dynamics (Srivastva et al. 1977; Delbecq and Ven 1971). Participants in MAG need as well to develop learning and task performance to be effective. However, in MAG, they are not participating in fixed small groups such as those studied by the aforementioned scholars of group development, but in highly dynamic and changing constellations. MAG often functions in sub-groups and commissions that have limited direct contacts among them. New members tend to join or leave at any moment, and they are replaced due to internal changes in their constituent organizations. Group development theories advocate interdependency between the participants as a development goal to be reached (Srivastva et al. 1977; Bouwen 1998). However, this is very challenging for MAG, which is often functioning through several loosely coupled sub-groups, passing periods of intense collaboration alternated with languid activity that might result in different levels of group development at a given moment.

To be relevant for complex societal issues, MAG brings together people with diverging, often conflicting perspectives on problems, possible solutions, and suitable courses of action. Exclusively focusing on the task content can accentuate these differences and hamper the necessary group development. The concept of

relational practices, ‘task-oriented actions with relational qualities of reciprocity and some kind of reflexivity’ (Bouwen and Taillieu 2004), draws attention to the potential of shared practices. Argyris and Schön (1978) were the first authors to describe the process of learning within organizations as the result of complex interactive episodes, in which the mutually open quality of the communication makes development towards innovative outcomes possible. By engaging in relational practices, MAG participants explore in a similar way differences of opinion, interdependencies, roles, and positions between organizations. As a result, they go through a learning process that helps them to collectively discover how they create their reality and how they can change it.

Group Development and MAG in the Landfill Mining Case

The landfill mining initiative that we present as an illustrative case is part of a paradigm shift to sustainable materials governance: Instead of dumping waste in landfills, the idea is to keep materials in closed loops. The aim is to reopen old landfills to mine the stored waste, to recover valuable materials, and to generate energy. Behind this simple idea lies a complex reality that asks for the involvement of many actors from the government, civil society, business, and academia. Indeed, the initiative raises questions related to economic feasibility, nature conservation, health concerns, public acceptability, technological challenges, and legal and policy issues.

In this case, the initiative for landfill mining was taken by a medium-sized, family-run company. The company ran a large landfill for a couple of decades, accumulating 16 million tons of household and industrial waste on the site. Landfill mining fits within the business strategy to reposition the company as a technology innovator with a ‘green’ image. Because of the technical and social complexity of the initiative, the company was in contact with various research centers. A research consortium was set up, with an academic engineering scientist as coordinator. The Consortium assembled researchers from many disciplines—hard and applied sciences as well as human and social sciences—with scholars coming from various research institutes. They were selected by the coordinator based on their expertise, their interest in sustainability, their open-mindedness to consider various interests, and their possible access to funding channels. The regional Waste Agency and an investment fund for the regional development were also invited to be part of the Consortium. However, the Waste Agency opted after a while for a special status of “observing member” because of their conflicting interests as member of the Consortium propagating landfill mining and controller of the legal and environmental conditions of the concerned landfill. After a few meetings, a member of the local city council was also invited to be part of the Consortium. This person was the representative of an active local citizen group, as the initiative triggered a lot of questions, worries, distrust, and resistance in the local population.

At the start, there were frequent plenary Consortium meetings. After a while, various new initiatives originated that were loosely coupled with the Consortium. The company decided to set up a joint venture with a UK company because the advanced technology it offers was judged as the best available technology by the Consortium. The Consortium organized various international symposia, inviting interested academics and policy makers. These symposia lay the ground for a European network dedicated to the promotion of landfill mining for sustainable materials governance through research and lobbying. In the same period, the Waste Agency organized a couple of broad stakeholder meetings, with representatives of different governmental agencies and private companies related to waste and materials management. The local citizen group played an important role in transmitting the worries of the local community to the consortium and translating scientific information to the community.

Activities with the qualities of relational practices, as described above, turned out to be very helpful to bridge differences and enable learning between the different kinds of public and types of knowledge in the broadening network around the landfill mining Consortium. Examples are the joint site visit of researchers and local citizen representatives to the technical installations of the company in the UK and the active participation of the local citizen group in the preparation of the symposia. In these symposia, the local community representatives had ample opportunities for expressing their ideas and entering in an open dialogue with researchers, corporate officers, and policy makers.

RELATIONAL ACTION LOGICS FOR MULTI-ACTOR GOVERNANCE

An interesting debate is that on the suitability of different leadership styles for complex network leadership (Osborn and Marion 2009; DeRue 2011). A leadership style characterizes one specific person as the individual leader of a group or organization. However, as the term ‘style’ refers to an individual attribute, we propose the concept ‘relational action logic’ to characterize concrete relational practices among actors involved in mutual exchanges, in the sense that leadership interventions are enacted between different actors that engage in an interaction process. A relational action logic describes the—often implicit—strategic reasoning and the tactical interventions to secure the involvement of the adequate stakeholders and the necessary high quality of their interrelatedness in a joint initiative (Argyris and Schön 1978; Bouwen and Taillieu 2004).

In MAG, different relational action logics that have similarities with the transactional and transformational style in leadership studies (Bass 1999) seem necessary simultaneously. Transactional leadership takes place by keeping track of what attracts and motivates the partners to be part of the joint initiative and by assigning incentives (project funding, responsibilities, business opportunities, shared expertise, public credibility, etc.) to the partners according to their specific

interests. This type of leadership tends to satisfy the actual needs and interests of the parties around the table by distributing the possible benefits of the MAG initiative among them. Indeed, each of the participants has to justify their involvement in MAG by demonstrating the benefits of participation to their constituency. There is little space for long-term concerns, other stakeholders, and innovative thinking.

Transformational leadership, by contrast, steers the initiative by stimulating identification with overarching long-term values that go beyond the interests of the joint members, and for which a profound systemic transformation is necessary, with unclear consequences for the participating organizations. Both types of leadership are necessary because without transactional leadership, the network may lack the necessary support from constituencies to introduce change. But without transformational leadership, MAG risks being limited to the vested interests of the participants and undermining its transformational potential for the broader society (Craps and Sips 2010).

Transactional and Transformational Leadership in the Landfill Mining Case

In the landfill mining case, the main participants were well aware of the benefits each one expected in return for the invested time and energy in the joint initiative. The Company hoped to advance its new ‘green’ business strategy thanks to the results of the Consortium. Its position and reputation as an innovative and trustworthy environmental services company was at stake. The interactions between the Company and the researchers of the Consortium were thus informed by a mutual transactional logic. The business partner provided funding and access to a real-life industrial project with unique opportunities for scientific experimentation in return for research contributions to its landfill mining project. Through the Consortium, the research coordinator was able to set up other related initiatives on a regional and international level and strengthen his academic position. The strategic partnership with the Waste Agency provided access to extensive data and information on landfills, while in return, its representative got a front-row seat in the discussions about innovative waste management solutions. These examples illustrate how transactional leadership is enacted by managerial actions that secure resources, promote the project, and shape decisions.

Although in the first meetings of the initiative, the conversations between the participants expressed clearly their concern about securing the institutional agenda of their constituency, according to a transactional logic, these conversations soon shifted to innovative thinking about solutions for waste and materials governance. The research coordinator and the representative of the Company selected and invited participants for the Consortium, based on their supposed personal interest in sustainability-related research, and in the transdisciplinary setting (interacting

with other disciplines and non-academic stakeholders). Informal gatherings and intense conversations beyond the formal workshops of the Consortium reflected the positive excitement of the participants to develop together a new landfill mining concept for sustainable materials governance.

DEVELOPING COMPLEXITY LEADERSHIP THEORY FOR MULTI-ACTOR GOVERNANCE

Complexity leadership theory (CLT) (Uhl-Bien 2006; Uhl-Bien and Marion 2009; Fairhurst and Uhl-Bien 2012) offers an interesting relational approach to leadership by viewing leadership as an emergent dynamic of different leadership functions that exceed the attempts of individual position holders. In what follows, we demonstrate the relevance of CLT, developed in business contexts, to understand leadership in MAG.

CLT is rooted in complexity science, searching for a leadership paradigm that would better fit today's post-industrial knowledge-creating organizations (Richardson et al. 2005; Uhl-Bien et al. 2007). An increasingly fast changing environment expects organizations to process larger amounts of increasingly complex information at a rapid pace. Today's organizations must learn, innovate, and adapt quickly to remain competitive. The law of requisite complexity demands that organizations become as complex internally as their external environment, to guarantee the necessary information processing, learning, innovative, and adaptive capacities to this environment. Over the past few decades, organizations have progressively done so by adopting network-like formations, characterized by rather loose and informal relations. Such 'loosely coupled' network structures defy the logic of formal, hierarchical leaders and models of leadership based on centralized planning and control. Problem solving happens in emerging, ad hoc, self-steering, flexible, and changing networks; instead of in imposed, fixed, controlled, stable, and permanent teams. However, research suggests that informal dynamics may jeopardize organizational goal achievement if they lack sufficient coordination (Uhl-Bien et al. 2007). For that reason, CLT aims at a leadership model for complex networks of informally linked actors within a bureaucratically coordinated organizational context. CLT thus combines the leadership potential of informal network dynamics that foster learning, innovation, and adaptability in complex contexts with the leadership of central structures for coordination and the production of outcomes in line with the vision and mission of the organization

Whereas Uhl-Bien and colleagues developed CLT to conceptualize and study leadership dynamics within organizations in a business context, Nooteboom and Termeer (2013) showed that CLT also has an important potential for complex governance systems including multiple actors. On the basis of two case studies, Nooteboom and Termeer (2013) revealed leadership strategies creating conditions

that are favorable for the emergence of innovations. They concluded that embedding leadership in informal networks, where people have personal relationships, is important. However, they have not further elaborated on this relational dimension and have not related it to literature.

In MAG, leadership results from a process that takes place among the participants who belong to different organizations and societal sectors. Order in MAG is not pre-determined but emergent, and its future is unpredictable. MAG networks are capable of solving problems creatively and able to learn and to adapt quickly, although they do not always or necessarily achieve their problem-solving potential. According to Huxham and Vangen (2005), it is often unclear in multi-actor networks who is in or out at a given moment, who is linked to whom and in which capacity, or who is dependent of whom for other goals than those pursued by the network.

Complexity leadership theory has been applied to public sector leadership, to study the relationship between the complexity of urban regeneration projects (low to high) and the role and importance of administrative, adaptive, and enabling leadership (Murphy et al. 2017). While these projects sample a relevant range of complexity, including public and private actors, the focus is predominantly on the public sector leadership in these cases. Our interest is in multi-actor governance and how leadership plays out in governance networks that link up public, private, and civil society actors. Complexity leadership, or the emergent dynamic of different leadership functions, plays out between these different actors, sometime with and other times without a prominent role of the public sector. Complexity leadership in multi-actor governance networks is therefore broader than public sector leadership.

According to CLT, the combination of three leadership functions allows for the integration of the apparently contradictory demands of adaptability and structure for leadership in complex contexts: Administrative leadership, adaptive leadership, and enabling leadership. Crevani et al. (2010) conceived interactions resulting in direction as administrative leadership practices, interactions resulting in action-spacing as adaptive leadership practices, and interactions resulting in co-orientation as enabling leadership practice. Direction refers to managerial and decision-making actions of those who plan and coordinate activities to effectively and efficiently achieve set goals, as part of a MAG process. Action-spacing refers to creating possibilities, opportunities, and limitations for individual and collective action within the local-cultural context. Co-orientation refers to enhancing the understanding of possibly diverging arguments, interpretations and decisions (Crevani et al. 2010).

While addressing large societal issues, a MAG network cannot be guided by a single vision and mission, because society is characterized by ideological plurality and policies have to take into account the values and goals of different groups. In the following paragraphs, we clarify the specific relational challenges

of MAG for administrative, adaptive, and enabling leadership, with illustrations of the landfill mining case.

Administrative Leadership for MAG in the Landfill Mining Case

Administrative leadership refers to the traditional top–down relations, based on authority and position. As the implementation of innovative solutions is often hampered by a risk-averse or outdated regulation, these situations require some ‘bureaucratic entrepreneurship’ (Termeer and Kranendonk 2008). Moreover, formal leaders can sometimes guarantee necessary resources or useful alliances to clear the path for innovative ideas. Although one might expect governmental actors as the traditional steering agent in societal issues, they are not the only ones fulfilling administrative leadership functions. According to the power of the actors, based on their competencies and resources, and to their legitimacy for the concerned issues, different constellations of public, private, and civil actors can fulfill administrative leadership functions.

Various of the above-recounted events in the case of landfill mining for sustainable materials governance can be considered as actions of administrative leadership, through acts of controlling, planning, structuring, and coordinating between people in managerial positions. The administrative function was primarily taken up at the Board of Directors of the Company. The Director of Environmental Projects engaged in the administrative leadership process by internally exploring with his colleagues the possibility for this innovative business case and by building a vision around it. Then, resources were allocated, and external contacts were established with governmental agencies, investors, and researchers. The Company representative together with a well-positioned research engineer, publicly known for his dedication to sustainability, set up a research Consortium and joint forces to work it out. The first contacts were based on both their position and authority in their own business and academic domain, not yet on a close personal relationship. They built together a team of researchers and scientists with a clear vision and specific strategy in mind. They included people that shared a common interest in sustainable materials management, acknowledged the company’s business interests, and provided possible access to further research funding. People that could present a threat to the growing consensus in the Consortium on the convenience of landfill mining and the business case were avoided at that stage.

In a similar way, a formal network was set up with official representatives of the city council, provincial political structures, the Waste Agency, the investment fund, etc. The Waste Agency, although a bit reluctant to participate at first, soon realized it lagged behind on these newly-developing visions on waste and materials management, so it used its position as official waste regulator to convene large scale workshops with interested actors from the public, private, and civil sector and in this way promoted and supported the idea. Later on, the Waste

Agency integrated landfill mining in its strategic plan for sustainable materials governance.

International symposia disseminated the built-up knowledge in academic circles. By organizing them close to the location of the project case, the link with the Company was underscored. These symposia also allowed local and national political actors to put the area on the map as a welcoming region for sustainable development initiatives, a core asset of landfill mining according to its defenders.

Adaptive Leadership for MAG in the Landfill Mining Case

Adaptive leadership is possible thanks to emerging mechanisms of resonance, information patterning, and dealing with tension. It takes place throughout the organization but adopts different forms according to the involved hierarchical levels. The upper levels can secure strategic relations with the organization's environment, safeguard niches, and anchor new strategic insights for innovations in their own organization. The middle levels can allocate specific resources and focused planning. However, adaptive leadership is most active and visible at the 'work floor' level, where new insights and products are conceived interactively. Adaptive leadership allows groups to 'learn their way out' of adaptive challenges (Uhl-Bien et al. 2007). Its primary outputs are learning, creativity, and adaptability. This dynamic can properly be considered as 'leadership', as it is fundamental for the direction of a change process. The participants in adaptive leadership settings stimulate and trigger each other in their meetings to come up with effective innovations for the challenges of the environment (Uhl-Bien et al. 2007; DeRue 2011; Uhl-Bien and Marion 2009).

The larger societal issues that MAG wants to tackle often demand changes that remain unknown until they manifest themselves as a result of paradigmatic shifts in thought or behavior patterns. Adaptive leadership is an interactive and generative dynamic that emerges out of the clash and connection between the discordant ideas and conflicting interests of people belonging to different social groups, engaged in MAG. Building on the resulting tension, adaptive leadership produces complex outcomes, integrating innovative ideas or technologies with new social alliances and cooperative efforts.

In the landfill mining case, adaptive leadership was mainly enacted by the researchers in the Consortium while exchanging knowledge and expertise between different scientific disciplines, including social sciences, in this highly technical endeavor. The Consortium counted in its starting phase with a relatively limited number of active members, 15 approximately. The first year, they met frequently in an informal way. This helped the exchange and elaboration of ideas and information and resulted in a shared vision on landfill mining for sustainable materials governance. Simultaneously, adaptive leadership was also enacted in other change alliances, around the business joint venture and around the participation of the local communities. In the joint venture, business partners and

scientists were looking for ways to upgrade and commercialize the materials resulting from the application of new technologies. A group of local inhabitants living in the neighborhood of the targeted landfill site enacted also adaptive leadership, related to local community concerns about the project. They expanded the dominant technical perspective of the Consortium by asking critical questions about public health and safety aspects.

Enabling Leadership for MAG in the Landfill Mining Case

According to Uhl-Bien et al. (2007), enabling leadership fulfills two important functions: It catalyzes adaptive leadership, by encouraging the necessary interaction and information exchange in adaptive leadership groups, and it entangles this adaptive leadership with administrative leadership. Brokering and boundary spanning activities are essential for this type of leadership. In MAG, this implies stimulating an awareness of interdependency between the participants, managing productive interfaces between administrative and adaptive leadership, and taking care of the dissemination of innovation towards external parties that are not directly involved. Enabling leadership also has to protect the initiative against top-down politics imposed by external parties that prefer continuity, competition, and defensive strategies, instead of the innovative and interdependent-collaborative strategies proposed by MAG.

Enabling leadership is hard to study, as it often takes place through confidential contacts in personal relationships. In our case, the research coordinator of the Consortium had an active role in different networks related to sustainable materials governance, linking the worlds of engineering scientists, research managers, green activists, and political and public debate, even long before the start of the project. After the start of the Consortium, the representative of the Company became also involved in these networks. Numerous personal conversations about the project took place with “trusted” people. The location and setting for these conversations were adapted dependent on the type of conversation and of the participants. Sometimes, the meetings were more formal, in an office at the university, at the Company or even at the Waste Agency, but often these conversations also took place in an informal get-together in a pub before or after work time. As the research coordinator was active in various networks, he was often part of the brokering and boundary spanning activities.

As a consequence of these activities, higher officials of the universities and research centers, members of the Company family and their board of directors, and officers at the Waste Agency and political power holders were gradually willing to challenge their traditional roles and the boundaries between their organizations. Scientists became interested parts of a shared Consortium with private and civil partners instead of distant researchers of an external project. The Waste Agency found itself in a position of considering policy adaptations to make the project possible.

In addition to brokering and boundary spanning between different organizations and societal sectors, enabling leadership was also necessary to facilitate adaptive leadership practices inside the research Consortium. Indeed, researchers with different disciplinary backgrounds and belonging to different research institutes had to discover how to connect their interests and insights with those of their colleagues. This challenge became even bigger after incorporating public health scientists—originally not conceived as relevant for the initiative—and a representative of the local population. The social scientists in the Consortium enacted this function of enabling leadership by critically reflecting with the researchers about the constellation of the Consortium, by carefully preparing the meetings of the Consortium together with the research coordinator and the Company representative, to make these meetings as interactive as possible, and by stimulating active listening and open dialogue among the participants in the meetings of the Consortium.

DISCUSSION AND CONCLUSIONS

MAG generates multiple relations between the involved public, private, and civil actors. A relational approach is appropriate to analyze leadership because relations and connections matter more than individuals and positions in networks. Relational scholars put conversation and dialogue in the center as essential relationship building and sense-making tools. According to this relational approach, leadership is enacted in ‘relational practices’ that are able to connect discordant ideas through the qualities of reflexivity and reciprocity in shared activities. As leadership develops out of and through the relations and interactions in the network, it is an emergent construction within the MAG process and not a given top-down or outside-in facilitating force. It is definitely not a well-defined position or function assigned to an individual person who could then simply be considered the leader of a MAG network.

We described the case of landfill mining for sustainable materials governance to demonstrate a relational approach to leadership in MAG. This relational approach draws the attention to the specific characteristics of group development in MAG. Actors become increasingly aware of their different perspectives, values, goals, and interdependencies as the process unfolds. The interpersonal relationships gradually develop as a result of a group development process with specific challenges because of the loose coupling between different sub-groups and because of the plural values and interests of its participant (Bouwen and Taillieu 2004). Meetings often count with new members and generate a lot of ambiguity because of the different back grounds of the participants. As a consequence, the opportunities to go through a group development process are more limited and meetings are more demanding than in intra-organizational teams. Nevertheless, trust building is equally required before

participants involved in MAG can engage in exploring the diversity of opinions, interests and values, and in cultivating transboundary relationships and common identities. The actors involved in MAG not only have to cultivate interdependence and connectedness among them, but they also have to take care of the broader society, and they have to be sensitive for the voices and interests of people that are not directly participating, as an outcome of this group process.

A relational approach also draws the attention to the relational action logics—rather than on the style of individual leaders. We observed in our case a gradual shift from a predominantly transactional action logic, paying attention to the direct benefits for the participants in the joint landfill mining initiative, to a transformational action logic, based on identification with the value of sustainable materials governance for the broader society. Not only governmental actors, but other actors as well, belonging to the private and civil sector, can become part of this transformational action logic. Leadership for MAG consists then of favoring the conditions that stimulate the development of a group process leading to this outcome.

CLT, developed within organizations, offers a valuable relational approach to grasp the variety of leadership tasks that are needed in the MAG setting of loosely coupled interorganizational networks. Administrative leadership practices are characterized by engaging in planning, structuring and controlling activities, while remaining receptive for the rapid changes in the outside world. Adaptive leadership practices are triggered by societal challenges for which participants want to co-create social and technological innovative solutions. Enabling leadership is key in MAG by managing the interface between administrative and adaptive leadership and by fostering the catalyzing conditions for adaptive leadership. It is enacted in brokering and boundary spanning activities among persons belonging to different organizations and social sectors that have a trust relationship with the administrative leadership in their own constituent organizations and that are acquainted with the social and technological novelties generated by adaptive leadership. They create opportunities by activating contacts ‘behind the scene’ and by establishing close personal relationships within the network.

Different types of leadership practices and relational action logics may not only co-exist in MAG; they also need each other and have to function in synergy to enhance the innovative capacities needed for the collective. Strengthening and promoting leadership practices according to the needs of the situation, thus, requires participants developing together contextual sensitivity, dialogical capacities, and reflexivity. Our case suggests that administrative leadership is predominantly characterized by a transactional action logic, that adaptive leadership thrives on a transformational logic, while the bridging function of enabling leadership is possible thanks to an ambidextrous combination or balancing of transactional and transformational action logics.

Further research is needed to analyze more in-depth the relational action logics of the leadership functions that can take into account the specific challenges for group development in MAG. Collaborative action–research is consistent with the relational approach to leadership argued for in this article (Eden and Huxham 1994; Bradbury and Lichtenstein 2000; Huxham 2000a). Theorizing and intervening are then conceived as interconnected, and research is conceived as a joint enactment of the worlds it wants to help to co-create. Doing research in this way raises however important new questions about the relational action logics of the researchers and how their research practices may contribute to a desirable group development for MAG.

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