Does the Playing Field Determine the Game?
An Impact Analysis of Structural Virtual Network Characteristics on Political Actions

Henning Staar[1], Monique Janneck[2], Frederik Metzger[3], Stefan Berwing[3] and Thomas Armbrüster[4]

[1]*Department of Psychology, University of Hamburg, Hamburg, Germany*
[2]*Electrical Engineering and Computer Science, Luebeck University of Applied Sciences, Luebeck, Germany*
[3]*Business School, University of Mannheim, Mannheim, Germany*
[4]*Faculty of Law, Social Sciences and Economics, University of Erfurt, Erfurt, Germany*

Keywords: Virtual Networks, Micro-politics, Influence Tactics, Network Structures.

Abstract: Virtual networks are often characterized as having less formal and hierarchical structures. Instead, informal actions and so-called political behaviour of individual members play an important role regarding power and decision-making. In this paper we investigate the relation between structural characteristics of virtual networks and informal influence tactics of network members. Results show that there are indeed numerous relations between the 'playing field' provided by the network structure and the behaviour of individual network players. Surprisingly, an increase of formalization, e.g. through the use of agreements, fixed principles and rules or even contracts, did not constrain informal political behavior. On the contrary, higher formalization was comprehensively associated with higher use of micro-political tactics.

1 INTRODUCTION

In recent decades, globalization and technological developments have led to new forms of organizational structures that go beyond classic individual enterprises and gain increasing importance on the market. Among those, so-called *virtual networks* have been studied intensively for quite some time (e.g., Davidow & Malone, 1992; Goldman, Nagel & Preiss, 1995; Kock, 2000; Travica, 2005). Nevertheless, there is still need for research regarding their formal and informal mechanisms of governance and leadership: The vast majority of existing research in this area has focused predominantly on the level of either structural or behavioral characteristics (Provan, Fish & Sydow, 2007). As such, some authors solely rely on the network's formal structures and design (e.g., formal roles like network managers) to explain network success (Provan & Kenis, 2007), while others emphasize the informal dynamics and individual interest-driven actions between agents as the relevant key factors for decision-making (Elron & Vigoda-Gadot, 2006). The *interaction* of virtual

network structures and informal, political behavior, however, has seldom been studied so far.

Trying to bridge this gap, the aim of our paper is to investigate whether structural characteristics of virtual networks – formalization, centralization and interaction – are crucial to explain several forms of political behavior in virtual networks. In our paper, 'politics' refers to informal actions of individual stakeholders to gain power and exert influence (Ansari, 1990; Kipnis, Schmidt & Wilkinson, 1980; Pfeffer, 1992). Originating in organizational science and psychology, political behavior within organizations has been extensively researched in the last decades (e.g., Ferris et al., 2000, 2002; Vigoda-Gadot, 2003) but is continuously gaining attention in the field of network research (Huxham & Vangen, 2004). Focusing on both, formal network structures and informal political processes is particularly interesting due to the fact that on one hand formal instruments are seen as a vital tool to coordinate processes in the common collaboration. On the other hand, inter-organizational networks are typically characterized by a lack of structures, hierarchies and limited formal authority to give directives therewith giving way to informal political behavior as a mode

of decision making (cf. Rittenbruch, Kahler & Cremers, 1998; Travica, 2005). Thus, it is sensible to assume that formal structures and informal actions of individual stakeholders are not independent from each other but rather shape the mutual possibilities and limits in governing the network.

To investigate whether structural network characteristics have an impact on political behavior in virtual networks, we conducted a quantitative study with representatives of various networks, questioning them about their networks' design and the use of behavioral political actions to gain power and influence in their collaboration.

2 BACKGROUND

2.1 Virtual Networks

Virtual networks take various forms (see e.g., Travica, 2005 for an extensive review). However, most definitions agree that virtual networks are forms of "inter-organizational, cross-border ICT-enabled collaboration between legally independent entities, usually with a specific economic goal" (Pitt, Kamara, Sergot & Artikis, 2005, p. 373). Further, virtual networks vary considerably regarding the stability of membership and participation and also the duration and goals of the cooperation (Davidow & Malone, 1992; Martins, Gilsen & Maynard, 2004). At the same time, network members often still act as individual competitors on the market. Thus, collaboration in virtual business networks has also been termed *coopetition* (Brandenburger & Nalebuff, 1997) and describes the permanent and delicate balancing act between cooperation and competition of the participating organizations.

In our research, we take a view of virtual organizations as networks of independent enterprises. Member organizations engage in this form of cooperation because they expect economic advantages, e.g. by sharing resources, forming buying syndicates, organizing vocational training together, attracting new customers and expanding their range of services or products or developing new products and services together. This is especially important for small and medium-sized enterprises (SMEs) that might be in danger of losing their competitiveness in a globalized market.

Based on this characterization, we will use the terms *virtual networks* and *inter-organizational networks* interchangeably in this paper.

2.2 Political Influence Tactics

In current publications some authors have pointed out that especially informal actions of individual members of virtual networks may play a crucial role in shaping and governing the network (cf. Greer & Jehn, 2009; Huxham & Beech, 2008; Huxham & Vangen, 1996, 2001, 2005). In organizational science, so-called *micro-political processes* are understood as strategies of individuals to achieve their goals, realize ideas, or push certain interests (Cialdini, 2001; Vigoda & Cohen, 2002). In their research, Janneck & Staar (2011) have identified a number of typical informal behavioral patterns – so-called *micro-political tactics* – being used in virtual networks (table 1).

Table 1: Micro-political tactics in virtual networks.

Rational Persuasion	Spreading information to the network partner(s) to clarify one's concerns.
Assertiveness	Engaging in open confrontation with or putting pressure on the network partner(s).
Exchange	Offering to do a network partner a favour in return; Signalising to reciprocate for the network partner's support
Inspirational Appeals	Calling upon the common vision, the basic idea of a network; emphasizing the need to pull together for being successful.
Self-Promotion	Emphasizing one's efforts regarding the network collaboration or one's value for the network.
Inspiring Trust	Trying to appear open-minded about the network partners' concerns; purposefully presenting oneself as a network partner who is willing to share information and resources.
Visibility	Trying to show presence via electronic media; Purposefully using all available channels to call attention to one's concerns.
Proactive Behavior	Looking for opportunities to play an additional part in the network beyond the primary role; taking over new tasks and/or roles within the network to extend one's scope of action.
Mediating	Trying to mediate between partners during negotiations and discussions; Keeping a non-committed position in discussions and controversies instead of taking sides with a party straight away.

To date, the majority of research has declared micro-politics as a useful concept especially for polycentric networks with limited formal structures, hierarchies and rules of governance (e.g., Pearce, Yoo & Alavi, 2005). The rationale behind this perspective is the following: When formal structures of leadership are missing, individual activities to form interest-driven coalitions and build an influential position in order to maximize the benefit from the cooperation are very likely to occur and should be especially effective in these networks due to the 'open playground' (Janneck & Staar, 2011). However, these considerations remain theoretical so far. The empirical examination of this underlying assumption – whether the lack of structures, rules and roles is giving way to informal processes and tactics of influence and negotiation at all – still endures. Accordingly, an exertion of political tactics in relation to several structural network characteristics is necessary to understand the premises of informal influence behavior in virtual networks.

2.3 Structural Characteristics and Micro-political Behavior in Virtual Networks

Beyond the basic properties of virtual networks that we illustrated above, the following structural characteristics can be seen as crucial in shaping the 'playing field' of these collaborations (cf. Metzger, Oberg & Armbrüster, 2010):

2.3.1 Formalization of Processes and Roles

In general, virtual networks are frequently described as being distributed through rather loosely coupled associations and a lack of formalized processes, rules and roles – especially at early stages of the network's life cycle (Ahuja & Carley, 1998). However, virtual networks are not necessarily formal vacuums without any governance by rules and procedures (Pitt et al., 2005). In fact, formalization in virtual networks is of gradual nature and can be reflected in low-formalized processes like oral agreements that are made between member organizations or documentations of processes being set up in writing, through mandatory rules and principles, to highly formalized instruments like closed contracts that form the framework of the joint collaboration (cf. Metzger, Oberg & Armbrüster, 2010). Beside the formalization of processes, some collaborations implement formal roles within the network like coordinators, network managers or directors, therewith creating an official structural responsibility for certain processes (Provan & Kenis, 2007). In the prevailing literature higher formalization of processes and roles in virtual networks is often seen as a means to curtail informal interest-driven political actions through the implementation of official guidelines (cf. Huxham & Beech, 2008; Elron & Vigoda, 2003). From a political perspective, however, formalization of processes and roles may not necessarily result in decreasing micro-political activities among agents. Several studies from intra-organizational research indicate that even highly formalized organizations offer possibilities for micro-political behavior or may even elicit informal influence attempts that act as a counter balance to inflexible formal structures (Ferris et al, 2002). This latter aspect of micro-politics as an informal corrective to formal structures leads to the question of who the network's political agents actually are: Intra-organizational research shows that political actions are not necessarily depending on legitimate power and are hence not restricted to certain formal roles (Dosier, Case & Key, 1988; Yukl & Falbe, 1990). Accordingly, both scenarios in virtual networks seem reasonable to assume: Members who do not fill a formal position in the virtual network could especially rely on informal tactical behavior as their 'weapon of choice' to contribute to network-related decisions. At the same time, members who are holding formal roles are likely to strengthen their position through the additional use of political actions – not to mention that tactical behavior could have played a major role in the selection process.

2.3.2 Centralization of Decision Making

Another feature that is often associated with virtual networks is their polycentric organization, i.e. in absence of legitimate hierarchical power (cf. French & Raven, 1959) there is limited formal direction and guidance resulting in relatively high degrees of autonomy of the network members (e.g., Hoffman, Stearns & Shrader, 1990; Vigoda-Gadot, 2003). Nevertheless, there are a wide variety of network designs that incorporate some form of focal government leading to higher degrees of centralization in decision-making processes and to an imbalance regarding the formal proportion of power in the network. However, quite similar to the discussion on formalization mentioned above, the effects of centralization in virtual networks on political behavior are not quite clear so far: On one hand, it has been assumed that the lack of

centralizing structures roles could give way to informal processes and tactics of influence as a compensatory form of governance and leadership (Pearce, Yoo & Alavi, 2005). On the other hand, structural hierarchical tendencies could argue for an increase of political actions as a counter balance – this phenomenon has been widely discussed in organizational literature as the so-called 'bottom-up leadership' (Rao, Schmidt & Murray, 1996; Yukl & Falbe, 1990).

2.3.3 Interaction of Network Members

Due to the fact that virtual network members are typically spatially separated in their daily routines the way interactions take place is likely to be different from traditional organizational settings in several ways:

First, communication and coordination of work activities in virtual network collaborations is often enabled and facilitated through a more or less extensive use of information and communication technologies (ICT) (e.g., Franke, 1990; Travica, 2005). Several authors suggest that higher relevance of computer-mediated interactions is comes along with changing opportunities to influence others (Sussman et al., 2002; Wilson, 2003). As the importance of ICT for coordination processes differs considerably among networks, effects on political behavior can be expected. Previous research on political processes in virtual networks indicates that technology-based interactions may be especially susceptible to – at least some – informal influence processes (Elron & Vigoda-Gadot, 2006; Spears & Lea, 1992; Williams, 2003). However, more empirical research is needed to make sophisticated explanations for different tactical actions (table 1).

Second, virtual networks differ in their way of how opportunities for mutual interactions are managed – this refers to the frequency and importance of planned, regular network meetings as well as to ad-hoc situations. Of course, political behavior is reliant on interactional settings. However, little is known about the effects of frequency and type (planned vs. ad-hoc settings) of interactions on political opportunities.

Based on the theoretical discussion on the relationship between structural characteristics and political behavior, the following conclusions emerge. So far, the vast majority of studies have evaluated either political tactics in virtual networks isolated from the structural 'playing field' where influence attempts take place or vice versa – but the consequences of structural configurations for informal political opportunities are barely taken into consideration. Our study aimed to bridge this gap and should offer first insights into the interdependencies between formal structures and informal, micro-political behavior in virtual networks. Since theoretical and empirical previous knowledge in this issue is sparse, we have chosen an explorative approach and refrained from the formulation of directional hypotheses.

3 METHOD

3.1 Subjects

Overall, 2.100 virtual networks were contacted by means of a systematic internet research across Germany. All addressees were asked if they would care to participate in a study on cooperation in inter-organizational networks. Overall, 340 questionnaires were sent back. For this study, a total of 232 questionnaires could be used (11% return). Around 40% of the respondents held a formal position within the network (e.g. network manager). The sample characteristics are illustrated in table 2.

3.3 Instruments

Micro-political influence tactics were measured with an inventory that captured the nine tactics from table 1 based on the work from (Janneck & Staar, 2011; see Appendix). The original version for political agent respondents was used. In this version the

Table 2: Sample characteristics.

Enterprise size	1 – 850 employees
Network size	2 – 2.100 member organizations
Primary objective of network	Products ($n = 44$) Supply of Services ($n = 168$) Research and Development ($n = 48$)

respondent rated his or her own influence attempts towards other members of the joint collaboration (e.g., "I use rational arguments to convince my network partners"). The 6-point-likert scale ranged from 1 = "never" to 6 = "always".

Structural characteristics – namely *Unwritten Agreements, Mandatory Rules and Principles, Closed Contracts,* and *Documentation of Coordination Processes* – were measured with single items that were developed in the course of a larger project on inter-organizational networks (Metzger, Oberg & Armbrüster, 2010). Again, 6-point-likert scales were used ranging from 1 = "never" to 6 = "always" or from 1 = "strongly disagree" to 6 = "strongly agree".

Furthermore, all participants were asked to indicate network-specific data such as the name, network and enterprise size, length of cooperation, primary objectives, legal form and business sector of their enterprise and the virtual network.

4 RESULTS

4.1 Formalization and Political Tactics

To analyze the impact of different forms of formalized processes on the nine influence tactics, Pearson's product-moment correlations were calculated. As can be seen from table 3 there are low to medium positive significant interrelations between the constructs of interest. *Mandatory Rules and Principles* and *Closed Contracts* even show

significant correlation coefficients with each of the nine tactic scales ranging from $r = .16 – .29$. The highest correlation can be found between *Rational Persuasion* and *Unwritten Agreements* ($r = .44$): The more oral agreements are made, the more intensively this tactic is pursued. *Exchange* reveals only two significant correlations to the distinct forms of formalization indicating that the use of this tactic is not affected in general by formalization of processes. Taken together, the results indicate that formalizing processes in the joint collaboration is accompanied with higher use of political tactics.

To answer the question of how the (non-) occupation of formal roles is related to political activity, the group of respondents holding a formal role was compared to those who did not on their use of the nine tactics. Therefore, t-tests with the tactics as dependent variables were performed.

In table 4 the compared means of the groups as well as the *p*-values are listed. The results reveal that indeed all but one group (*Exchange*) differs significantly on the .05-level or on the .01-level respectively. Interestingly, values are continuously higher for the group of respondents with formal roles: Holding a formal role in the virtual network is associated with higher use of the nine influence tactics.

4.2 Centralization and Political Tactics

To assess the impact of centralization on different tactics, again Pearson's product-moment correlations were calculated. As can be seen from table 5, two

Table 3: Correlations between Political Tactics and Forms of Formalization: Processes [a] (n = 163 – 206).

	Unwritten Agreements	Mandatory Rules and Principles	Closed Contracts	Documentation of Coordination Processes
Rational Persuasion	.44**	.23**	.18*	.21**
Assertiveness	.04	.17*	.17*	.16*
Inspirational Appeals	.22**	.28**	.26**	.13
Exchange	.07	.21**	.26**	.06
Self-Promotion	-.11	.25**	.26**	.21**
Visibility	.18*	.25**	.29**	.20**
Mediating	.22**	.16*	.19*	.18*
Proactive Behavior	.16*	.17*	.25**	.17*
Inspiring Trust	.32**	.24**	.25**	.19**

Note. [a] Sample Size differs due to Pairwise Deletion for Missing Data;* $p < .05$; ** $p < .01$.

Table 4: Correlations between Political Tactics and Forms of Formalization: Roles.

	Respondent: Formal Role ($n = 86 - 93$) [a]	Respondent: No Formal Role ($n = 113 - 116$) [a]	p
Rational Persuasion	4.77	4.51	.079
Assertiveness	2.92	2.50	.014
Inspirational Appeals	4.51	4.11	.016
Exchange	2.91	2.74	.386
Self-Promotion	2.68	2.28	.024
Visibility	3.94	3.54	.032
Mediating	3.62	3.27	.019
Proactive Behavior	3.29	2.85	.009
Inspiring Trust	4.43	4.07	.019

Note. [a] Sample Size differs due to Pairwise Deletion for Missing Data.

Table 5: Correlations between Political Tactics and Forms of Centralization [a] ($n = 199 - 207$).

	„Particular network members give orders in coordination processes"	"Coordination processes are implemented through a person in power (network manager, coordinator etc.)"
Rational Persuasion	.14	.16*
Assertiveness	.17*	.17*
Inspirational Appeals	.08	.15*
Exchange	.01	-.05
Self-Promotion	.12	.20**
Visibility	.08	.21**
Mediating	.07	.20**
Proactive Behavior	.13	.22**
Inspiring Trust	.11	.17*

Note. [a] Sample Size differs due to Pairwise Deletion for Missing Data;* $p < .05$; ** $p < .01$.

Table 6: Correlations between Political Tactics and Forms of Interactions [a] ($n = 163 - 211$).

	Ad-hoc Contact	Regular Meetings	Importance of ICT
Rational Persuasion	.17**	.34**	.32**
Assertiveness	.06	.07	.09
Inspirational Appeals	.08	.20**	.26**
Exchange	.18*	.02	.15*
Self-Promotion	.04	.06	.12
Visibility	.12	.16*	.32**
Mediating	.13	.17*	.24**
Proactive Behavior	.13	.18*	.22**
Inspiring Trust	.22**	.26**	.28**

Note. [a] Sample Size differs due to Pairwise Deletion for Missing Data;* $p < .05$; ** $p < .01$.

single items were used to indicate forms of centralization: First, we asked if particular network members are giving orders when processes are coordinated in the virtual network. In addition, respondents should answer if coordination processes are implemented through a person in power (e.g., network manager, coordinator). In examining the results illustrated in table 5, the two questions show different interrelations with the tactics. While there is only one small significant correlation between *Assertiveness* and the existence of network members giving orders ($r = .17$), the existence of a person in power in the network reveals small but significant positive correlations with eight out of nine tactics, ranging from .16 to .22. These results suggest that the implementation of a focal agent who coordinates processes in the network is related to a more intense use of micro-political behavior.

4.3 Interaction and Political Tactics

In order to analyze the relationship between different forms of interaction and the use of influence tactics, further correlations were calculated. The results are shown in table 6. As can be seen, there are small significant positive correlations between the opportunity for *Ad-hoc Contact* and the three tactics *Rational Persuasion*, *Exchange* and *Inspiring Trust* with coefficients between .17 and .22. Further, six out of nine tactics are significantly associated with the formation of *Regular Meetings*. Again, small significances were found, except for one medium correlation of $r = .34$ between *Rational Persuasion* and this form of interaction.

Regarding the importance of ICT for coordination processes in the network small significances were apparent for seven out of the nine tactics. Worth to mention, all significant positive correlations were higher in relation to the other forms of interaction, thereby revealing two medium significances (*Rational Persuasion*, *Visibility*).

Across forms of interactions, especially *Rational Persuasion* and *Inspiring Trust* seem to be stable in their association with several interaction forms: The more opportunities for planned or ad-hoc interactions are given, the higher the use of these tactics. The same applies to the importance of ICT for coordination processes.

In general, the use of tactics seems to be dependent on the importance of ICT in network-related coordination processes indeed. In two cases, however, these tendencies are not apparent: *Self-Promotion* and *Assertiveness* show no significant interactions across all forms of interaction.

5 DISCUSSION

Does the structural 'playing field' in virtual networks – in terms of formalization, centralization and interaction – have an impact on the political influence behavior that is displayed by the network members? And if so, do structures rather inhibit or promote certain tactical actions? To find answers, the aim of the present study was to determine whether interrelations would be found between distinct structural characteristics and the respondents' reports on their influence attempts in the virtual network collaboration they were engaged.

On the whole, results indicate that the use of political tactics is not independent from the structural characteristics of the joint collaboration. Surprisingly, an increase of formalization, e.g. the use of agreements, fixed principles and rules or even contracts did not constrain informal political behavior. On the contrary, higher formalization was comprehensively associated with higher use of micro-political tactics. The same tendencies were revealed for centralization in terms of a person in power (network managers, coordinators etc.) that coordinated network processes.

Further, we investigated whether there is a difference in the frequency of micro-political behavior depending on the occupation of formal roles. Thereby, both directions seemed possible: Members who do not fill a formal position in the virtual network could especially rely on informal tactical behavior to be able to contribute to network-related decisions. At the same time, members who are holding formal roles could try to strengthen their position through the additional use of political actions. Interestingly, the latter was the case: Respondents with a formal role within the collaboration used eight of the nine tactics – except for *Exchange* – more intensively compared to respondents without a formal role.

These findings might seem surprising at first sight, since it is reasonable to assume that stronger formalization and centralization build up a governmental structure so that informal influence activities should become less important. However, according to our results, the opposite seems to be the case: Formalization and centralization do not thwart political agents in virtual networks. Even more, tactical behavior appears to function as a counterbalance to formal structures. At the same time, micro-political behavior cannot be regarded as a means that works against the network structures in the sense of 'leadership from the bottom up'. In fact, results indicate that influence tactics are used

especially by members who are already in a formal position, possibly trying to stabilize or even improve their role.

A possible explanation could lie in the perceived imbalance of power that is inevitably accompanied by a stronger implementation of structures: In formalizing or centralizing processes, power structures and relations become more obvious for all network partners. As a consequence, this may result in micro-political processes to gain or keep influence.

With a view to forms of interactions and their impact on political tactics two aspects shall be briefly discussed: First, higher opportunities for formal and informal contact show a slight trend to higher political engagement. However, only some of the tactics showed significant relations. Consequently, more interaction is not necessarily accompanied by more political interaction. Second, ICT seem to have a catalytic effect on political influence attempts. Small to medium positive correlations could be found for seven out of nine tactics, especially for tactics that can be regarded more or less as virtual in nature like *Visibility*. However, other tactics are affected as well. How can this be explained? As was stated above, ICT fundamentally changes interaction settings. Following this approach, higher importance of ICT in virtual networks could imply that the relevance for network members to reduce Anonymity and to establish Awareness is more urgent. Political tactics could be one solution of 'getting one's way' (Kipnis, Schmidt & Wilkinson, 1980) when communication and coordination is conveyed through media. This is also supported by the results from Janneck & Staar (2011), who found that the use of micro-political tactics was associated with the relevance and use of ICT in virtual networks.

This also raises interesting questions regarding the design of communication and cooperation media. It is feasible to assume that the degree of openness, awareness, and transparency provided by a groupware or similar communication media will influence communication styles and therefore also political behavior (cf. Janneck & Staar, 2011). How exactly the design of cooperative systems influences micro-political behavior needs to be investigated in future studies.

The following conclusions can be drawn from the results of the present study. The first conclusion follows from the ongoing discussion concerning the effect of network structures on the agents' opportunities for political behavior. On that note, some researchers have argued that especially limited

formal structures and roles may lead to influence behavior (cf. Janneck & Staar, 2011). Despite the fact that micro-politics occurred to a considerable degree across the whole sample, formalization, centralization and interaction tended to increase micro-political behavior. Accordingly, postulated recommendations to inhibit micro-politics through stronger structuring have to be critically reflected (cf. Elron & Vigoda-Gadot, 2003, 2006). Following this perspective of many authors, micro-politics is regarded a rather negative force working against legitimate structures. The results indicate that this is not necessarily true: Network members who hold formal roles used tactics more intensively. According to that, political behavior may rather be seen as an additional possibility to participate in leadership and governance issues.

Beside the formulated research questions, the present study's results further suggest that micro-political behavior is far from being an extraordinary appearance or just an 'emergency solution' for single agents in virtual networks. Rather, micro-politics in these forms of collaboration seems to be a vital tool for members in general to improve the individual ability to act in network issues. This perception, in turn, gives rise to the question on the influence outcome. In other words: Who is the profiteer of micro-political maneuvers? At a basic level, we have taken a neutral perspective on micro-politics in this paper defining informal influence behavior as neither good nor bad. In addition, no empirical answers can be given with a view to the present study's focus. However, former research in this area indicates that micro-political tactics of individual agents are not necessarily driven by selfishness and mere self-interests. Likewise, tactical behavior can serve both individual and collective interests or might even be put to the full service of common network goals (Janneck & Staar, 2011).

The study offers some limitations. The first limitation is set by the selection of the sample: We did not analyze whole networks and the inner dynamics between various members. Instead we used single network representatives to gain insights into the field of informal and formal interrelations. Of course, it is problematic to act on the assumption that one single person can objectively or fully reflect the political situation in the virtual network. Further, we did not control for the distinct communication channels that were used. Accordingly, we were not able to differentiate between different media and resulting effects on political behavior. In addition, the present study offers some methodical limitations: Since we used a classic single-shot design, no causal

conclusions can be drawn. Whether structures have an impact on political tactics or vice versa cannot be clarified in the present study.

Taken together, the analysis of network structures and political tactics provide a first step to gain insights into interdependencies of virtual network design and social influence processes. Accordingly, future studies should continue to evaluate virtual networks' 'playing fields' and informal influence tactics to broaden the picture.

REFERENCES

Ansari, M. A. (1990). *Managing people at work. Leadership styles and influence strategies.* New Delhi: Sage.

Brandenburger, A. M. & Nalebuff, B. J. (1997). *Co-opetition.* Eschborn: Riek.

Cialdini, R. B. (2001). *Influence: Science and practice.* Boston: Allyn & Bacon.

Crozier, M. (1973). The problem of power. *Social Research*, *40*(2), 211-228.

Davidow, W. H. & Malone, M.S. (1992). *The virtual corporation.* New York: Harper-Collins.

Dosier, L., Case, T. & Key, B. (1988). How managers influence subordinates: An empirical study of downward influence tactics. *Leadership & Organization Development Studies Journal*, *9*(5), 22-31.

Elron, E., & Vigoda, E. (2003). Influence and political processes in virtual teams. In C. B. Gibson & S. G. Cohen (Hrsg.), *Virtual teams that work: Creating conditions for virtual team effectiveness.* San Francisco: Jossey-Bass.

Elron, E. & Vigoda-Gadot, E. (2006). Influence and political processes in cyberspace: The case of global virtual teams. *International Journal of Cross-Cultural Management*, *6*(3), 295-317.

Ferris, G., Hochwarter, W., Douglas, C., Blass, F., Kolodinsky, R. & Treadway, D. (2002). Social influence processes in organizations and human resources systems. In G. Ferris, & J. J. Marmocchio (Eds.), *Research in Personnel and Human Resources Management* (Vol. 21, pp. 65-127). Stanford: Elsevier.

Ferris, G. R., Treadway, D. C., Perrewe´, P.L., Brouer, R. L., Douglas, C. & Lux, S. (2007). Political skill in organizations. *Journal of Management*, *33*(3), 290-320.

Franke, U. J. (1999). The Virtual Web as a New Entrepreneurial Approach to Network Organizations. *Entrepreneurship and Regional Development, 11*(3), 203-229.

French, J. R., & B. Raven, (1959). The Bases of Social Power. In D. Cartwright (Ed.), *Studies in Social Power*. Michigan: University of Michigan Press.

Greer, L. L. & Jehn, K. A. (2009). Follow me: Strategies used by emergent leaders in virtual organizations. *International Journal of Leadership Studies*, *5*, 102-120.

Hoffman, A. N., Stearns, T. M. & Shrader, C. B. (1990). Structure, Context and Centrality in Interorganizational Networks. *Journal of Business Research, 20*(4), 333-347.

Huxham, C. & Beech, N. (2008) Inter-organizational power. In S. Cropper, M. Ebers, C. Huxham & P. S. Ring (Eds.), *The Handbook of Inter-organizational Relations*, (pp. 555-579). Oxford: Oxford University Press.

Huxham, C. & Vangen, S. (1996). Working Together: Key Themes in the Management of Relationships between Public and Non-Profit Organizations. *International Journal of Public Sector Management, 9*(7), 5-17.

Huxham, C. & Vangen, S. (2001). Leadership in the Shaping and Implementation of Collaboration Agendas: How Things Happen in a (Not Quite) Joined-up World. *Academy of Management Journal, 43*(6), 1159-1175.

Huxham, C. & Vangen, S. (2005). *Managing to collaborate. The theory and practice of collaborative advantage.* London: Routledge.

Janneck, M., Staar, H. (2011). Playing Virtual Power Games: Micro-political Processes in Inter-organizational Networks. *International Journal of Social and Organizational Dynamics in Information Technology*, pp. 46-66.

Kipnis, D., Schmidt, S. M. & Wilkinson, I. (1980). Intra-organizational influence tactics: Explorations in getting one's way. *Journal of Applied Psychology*, *65*, 440-452.

Martins, L., Gilson, L. & Maynard, M. (2004). Virtual teams: What do we know and where do we go from here? *Journal of Management*, *30*(6), 805-835.

Metzger, F. M., Oberg, A,; Armbruester, T. (2010). *Coordinated Interorganizational Networks: Empirical Results on Structures, Identities, and their Contingencies*. Presented at the 26th Colloquium of the European Group for Organizational Studies (EGOS), July 1-3 2010, Lisbon, Portugal.

Pearce, C. L., Yoo, Y. & Alavi, M. (2004). Leadership, social work and virtual teams: The relative influence of vertical vs. shared leadership in the nonprofit sector. In R. E. Riggio & S. Smith-Orr (Eds.), *Improving leadership in nonprofit organizations* (pp. 180-203). San Francisco: Jossey-Bass.

Pfeffer, J. (1992). *Management with power*. Boston, MA: Harvard Business School Press.

Pitt, J., Kamara, L., Sergot, M. & Artikis, A. (2005). Formalization of a voting protocol for virtual organizations. In *Proceedings of the Fourth international Joint Conference on Autonomous Agents and Multiagent Systems* (pp. 373-380). New York: ACM.

Provan, K. G., Fish, A. & Sydow, J. (2007). Interorganizational networks at the network Level: A review of the empirical literature on whole networks. *Journal of Management, 33*(3), 479-516.

Rao, A., Schmidt, S. M. & Murray, L. H. (1995). Upward

impression management: Goals, influence strategies, and consequences. *Human Relations*, *48*, 147-167.

Rittenbruch, M., Kahler, H. & Cremers, A. B. (1998). Supporting cooperation in a virtual organization. *Proceedings of the international conference on information Systems* (pp. 30-38). Atlanta: Association for Information Systems.

Spears, R. & Lea, M. (1992). Social influence and the influence of the „social" in computer-mediated communication. In M. Lea (Ed), *Contexts of Computer-Mediated Communication* (pp. 30-66). London: Harvester-Wheatsheaf.

Sussman, L., Adams, A., Kuzmits, F. & Raho, L., (2002). Organizatonial politics: tactics, channels, and hierarchical roles. *Journal of business ethics*. 40(4), 313-331.

Travica, B. (2005). Virtual organization and electronic commerce. *SIGMIS Database 36*(3), 45–68.

Vigoda, E. & Cohen, A. (2002). Influence tactics and perceptions of organizational politics. A longitudinal study. *Journal of Business Research*, *5*, 311-324.

Vigoda-Gadot, E. (2003). *Developments in organizational politics*. Cheltenham: Edward Elgar Publishing.

Wilson, E. (2003). Perceived effectiveness of interpersonal persuasion strategies in computer-mediated communication. *Computers in Human Behavior*, *19*(5), 537-552.

Yukl, G. & Falbe, C. M. (1990). Influence tactics and objectives in upward, downward and lateral influence attempts. *Journal of Applied Psychology*, *75*(2), 132-140.

APPENDIX

Table A: English Version of the Virtual Politics Inventory.

To achieve my goals within the network…

Rational Persuasion
I try to convince others with my knowledge in that matter.
I use rational arguments to convince my network partners.
I describe in detail the reasons for my concerns.
I spread information to the network partners to clarify my concerns.

Assertiveness
I clearly express my displeasure towards my network partners.
I engage in open confrontation with my network partners.
I put pressure on my network partners.

Inspirational Appeals
I try to highlight that we are all in the same boat.
I call upon our common vision, the basic idea of a network.
I emphasize the need to pull together for being successful.

Self-Promotion
I emphasize my efforts regarding the network collaboration.
I emphasize my value for the network.
I refer to positive outcomes due to my work and/or the central position of my company within the network.

Exchange
I affirm that I would show my gratitude for a partner's favor.
I offer to do my network partner a favor in return.

I promise to reciprocate for my network partner's support.

Mediating
I achieve my goals better when I behave neutrally towards my partners.
I try to stay neutral and mediate between partners during negotiations and discussions.
I keep a non-committed position in discussions and controversies instead of taking sides with a party straight away.
I try to be the mediating tie in cases of disagreement.

Claiming Vacancies
I look for opportunities to play an additional part in the network beyond my primary role.
I adopt some additional tasks as they turned out to be advantageous.
I take over new tasks and/or roles within the network to extend my scope of action.

Being Visible
I always try to show presence via electronic media.
I purposefully use electronic media to call attention to my concerns.
I always try to be available and present on all communication channels.

Inspiring Trust
I try to appear open-minded about my network partners' concerns from the very beginning.
I purposefully try to show that I am a good and worthy network partner (showing mutual exchange, trustworthiness, etc.).
I purposefully present myself as a network partner who is willing to share information and resources.
Right from the start I tried to show my reliability towards the other network members.