Johanna Saarinen

Managing global virtual teams

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Abstract

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Abstract

Advances in technology-enabled communication and a constant search for economic advantage have led global organizations to rely on virtual collaboration. Together with rapid changes in working life, virtuality has also altered the context for leadership and has had a significant impact on the work of managers. This study addresses managerial work in global virtual teams. In my study, I give voice to the managers themselves with the aim of enhancing our understanding of what the work of virtual managers is all about. The current scholarly literature on global virtual teams has examined virtual work mainly from the perspective of global teams. My study complements the extant literature by explicitly and uniquely focusing on managers' own experiences and their talk about making sense of their work.

On the basis of an analysis of how the managers of a Finland-based multinational corporation talk about their work, I argue that virtuality alters the nature of cross-cultural managerial work. Managers of global virtual teams cannot achieve the quality of managerial work they seek; the reality of a hectic pace, multiple stakeholder demands, and virtual communication with people from different nationalities, cultures, and languages hinder achievement of their personal leadership goals. Virtual contexts limit and narrow the latitude of managers to do their job. Consequently, conflicting expectations create pressure on them and lead to feelings of inadequacy.

In addition to an introductory essay, this thesis contains a series of four essays that elucidate different aspects of the work of global virtual team managers. The first essay explores the attempts of managers to exert influence in a virtual context. The second essay aims to understand the dynamics of trust and commitment in virtual teams and shows that relationships of trust and commitment are challenged in a virtual context. The third essay explores cross-cultural encounters and suggests that the reality of virtual work limits the opportunities of managers to communicate and take close personal interest in their employees and that these challenges lead managers to engage in task-oriented managerial activities. The fourth essay examines the emotions of managers in attempting to meet all the expectations they face and to cope with the various demands of a global virtual environment. They felt that they could not do enough and described emotions of inadequacy and guilt in their work.

This research brings new insight to the understanding of the managerial work, management practices, and emotions of global virtual team managers. My study shows that virtuality changes the nature of cross-cultural management, to which conflicting expectations pose constant challenges. My findings call for new leadership competences such as virtual communication and recruitment skills for the managers of global virtual teams.

Keywords global virtual teams, managerial work

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To my parents,
who have always encouraged me to explore the world and pursue my dreams

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Nicht, was wir erleben, sondern wie wir empfinden,
was wir erleben, macht unser Schicksal aus.

-Marie Freifrau von Ebner-Eschenbach

During my long career in global companies, I have travelled to a number of countries and worked with my colleagues all over the world. When listening to their stories, I saw and experienced how the work of global managers is changing rapidly. I wanted to give a voice to the managers themselves and write down their stories, and this is how my dissertation was born. Today, when my research project is almost completed, I feel relived but also a bit wistful. It has been truly an exciting journey and I have learned more than I ever imagined. For that, I owe thanks to many people, and I want to express my gratitude to them for sharing this journey with me.

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Writing a doctoral dissertation has been a long and often lonesome effort. This process, as well as my life, would have been much drearier without the wonderful friends with which I have been blessed. I wish to thank Kaisa, Tapsa, Mirkku, Pise, Holger, Jyrki, Sari, Tuula, Markku, Sirkku, Anssi, Inka and many others for your continued love and support, not only during this dissertation process but throughout my life’s journey. Thank you also Tarja, Lauri, Alisa, Harri, Anne and Eero for unforgettable sailing trips and support during this process. Discussions in the wonderful Book&wine club and Johdannaiset have also taken me away from work- and research-related thoughts. Special thanks to Katariina and Pihla for reviewing the references for my thesis.

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The road goes ever on and on
Down from the door where it began.
Now far ahead the Road has gone,
And I must follow, if I can,
Pursuing it with eager feet,
Until it joins some larger way
Where many paths and errands meet.
And whither then? I cannot say."

- J.R.R. Tolkien, The Fellowship of the Ring

Tuusula, August 2016

Johanna Saarinen

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Part I

1. Introduction

1.1 Managing global virtual teams in the new world of work

Advances in technology-enabled communication and a constant search for economic advantage have led organizations worldwide to rely on a geographically distributed workforce and increase virtual work. While enabling collaboration across distance, communication technology has also altered the context for leadership. Effective management of global virtual teams is important in today's competitive global economy. Such teams include members who collaborate across boundaries of distance, time, nationality, and organizations, and offer the best functional expertise from around the world. Virtual teams have become commonplace and are on the rise; while not long ago it was calculated that around half of the workforce was collaborating virtually, it is now projected that within a few years more than 1.3 billion people will be working virtually (e.g. Johns and Gratton, 2013). Furthermore, according to a recent survey, 80% of American employees reported working always or frequently in dispersed, virtual teams (Ferrazzi, 2014), and another survey suggests that approximately 70% of multinational organizations worldwide use virtual teams (SHRM survey 2012).

As global work becomes more complex (Wildman and Griffith, 2015), teams in virtual environments keep evolving and changing. Current teams are more widely dispersed and people typically work in multiple teams and organizations simultaneously (e.g. Jonsen et al., 2012; Mathieu et al., 2008; Maynard et al., 2012; O'Leary et al., 2011). In addition, the new generations of "digital natives," who view technology as the norm in both their personal and professional lives, are becoming more influential in the workplace (e.g. Chafkin, 2010; De Paoli, 2015; Gratton, 2011; Maynard et al., 2012). These and other changes will have an impact on the work of managers.

This dissertation stems from a desire to better understand managerial work in global virtual teams. Virtual collaboration has brought various opportunities and benefits for managers and organizations; it allows, for instance, tapping into geographical distributed resource pools, offers cost reductions and flexibility, and permits use of the lean structures (Gibson and Cohen, 2003) crucial for adapting to the needs of customers. However, virtual collaboration creates a number of challenges for managers and organizations, and researchers have become increasingly interested in how virtual teams work and how virtuality affects work. Consequently, research on virtual work has increased rapidly in recent years (see e.g. Au and Marks, 2012; DasGupta, 2011; Gilson et al., 2014; Hertel et al., 2005; Mockaitis et al., 2012; Powell et al., 2004; Zander et al., 2012). The rich body of research on virtual work testifies to the interest in and importance of this research field, and has yielded multiple and sometimes mixed findings, for example whether virtual teams perform better or worse than co-located teams or whether shared leadership makes virtual teams more or less successful (e.g. Hoch and Kozlowski, 2014).

On the basis of existing research, we know that electronic, virtual communication is inferior to face-to-face communication (Purvanova and Bono, 2009) and that leadership in virtual environments is different and more difficult than in co-located environments (e.g. Avolio et al., 2014; Golden and Fromen, 2011; Kerber and Buono, 2004). However, despite a rapidly increasing number of studies on virtual teams, there is general agreement that we do not adequately understand how the management of people is affected by technology and virtuality (e.g. Golden and Fromen, 2011; Kahai et al., 2012; Purvanova and Bono, 2009; Zigurs, 2003). Moreover, very few of the earlier studies have provided in-depth knowledge on what managers who work in virtual teams actually do.

This study addresses many of the gaps in research on global virtual teams. An increasing volume of virtual work in all organizations, accelerated development in virtual technologies, and rapid changes in working life have had a significant impact on managerial work. I chose managerial work in global virtual teams as the focus of this study with the aim of gaining a better understanding of what virtual managers work is all about. I sought to do this by exploring what managers say about their managerial work and how they make sense of their work. In my study, I gave voice to the managers themselves, and tried to listen and understand from their talk, what their work in global virtual teams is like, and whether virtuality adds new responsibilities and challenges.

1.2 My choice for the research topic

> *"Yesterday, I woke up at 5.30 am as every day, checked the emails and took a couple of calls from my Chinese employees. I then sent the material for today's meeting to my team members, ten people in seven countries. At 8 am I drove to my office, started with budget calls, had a number of Lync meetings during the day, sitting with my headset on. At 3 pm an urgent call from Italy broke the routines, a big issue with the local project implementation. In the afternoon I prepared the steering meeting for the following day, had one weekly one-to-one with one of my employees, checked the numbers with him, another call to Italy at 6 pm with Pernilla, things looked better. Then one Lync meeting with my American employee when he woke up, and the last meeting in my car when driving home. Finally, I parked my car in my home yard, trying to leave everything behind at that moment, it's one of the rules I have done to myself." - Alex, Delivery process owner, August 10, 2014.*

The above quotation is an example of the daily work of a manager in a global company. It resembles my own work in various positions in the multinational companies in which I have been employed during my long career. When working in those organizations, I became particularly interested in managerial work, which my colleagues often talked about, and which I also experienced. In our daily discussions, the managers shared their various experiences and feelings regarding work with their virtual employees. It was fascinating to work in a global environment with endless opportunities for learning, meaningful tasks, and rich diversity. However, the managers, myself included, also faced numerous challenges and problems in working with people whom we could not see or feel. It was not easy to replace physical presence with virtual presence. I discovered that in building and managing virtual work in organizations, managers play a key role. Managers are expected to carry out various tasks and responsibilities and to take care of people: to make the global teams work. Over the years, my interest in managerial work with global virtual teams grew deeper and stronger, and I wanted to learn more about it; this dissertation arose from that interest and my desire to study managerial work in global virtual teams.

1.3 Research gap

According to Gilson and her colleagues (2015), who reviewed the emerging virtual team literature in the past 10 years, the research field continues to be rich and has come far in a very short period of time (see also e.g. Scott and Wildman, 2015). During the past decade, we have gained comprehensive knowledge about virtual leadership, its challenges and opportunities, and put together a picture of what successful virtual leadership looks like. However, despite the growing prevalence of the research (see reviews in e.g. Das Gupta, 2011; Gilson et al., 2014; Hertel et al., 2005), there are still significant gaps in the field. According to Al-Ani (et al., 2011, 225), "the practice field has far outpaced what we know about how leadership and technology will affect each other". Moreover, although the ability to lead people virtually is no longer an option but a requirement for success, it seems that the virtual forms of organizing work are surfacing more quickly than scholars are able to study them; research on virtual team leadership is lagging behind (Al-Ani et al., 2011; Hill and Bartol, 2015; Kahai et al., 2012; Kelley and Kelloway, 2012; Malhotra et al., 2007; Zander et al., 2012). Similarly, Kahai (et al., 2007) argue that research on leadership in global virtual teams has not kept pace with the growth of virtual work and is an area in which practice is ahead of research (Jonsen et al., 2012). Moreover, Hinds (et al., 2011) state that management literature remains remarkably unhelpful in answering questions about what happens when people across nations and cultures work closely together. In this dissertation I have identified and filled some of the gaps in research on virtual work.

The majority of the earlier virtual team studies have taken the perspective of teams and team members and focused on subjects such as communication between team members (e.g. Daim et al., 2012; Joshi et al., 2009; Maznevski and Chudoba, 2000), and trust between team members (e.g. Chen et al., 2011; Edwards and Sridhar 2005; Jarvenpaa and Leidner, 1999; Symons and Stenzel, 2007; Symons, 2003). Previous studies have offered guidelines (e.g. Hunsaker and Hunsaker, 2008; Lojeski, 2010; Zofi, 2014), success factors (e.g. Verburg et al., 2013), and recommendations (e.g. Jonsen et al., 2012; Malhotra et al., 2008; Nemiro et al., 2008) to virtual teams and team managers, but we have not adequately listened to the managers themselves and how they talk about their work. This study aims at focusing on managers' talk and therefore tries to fill the gap in the current research in which the managerial perspective is inadequate.

Moreover, regarding the research design and the empirical focus, earlier virtual team research has predominantly occurred in experimental laboratory settings (see Gilson et al., 2015). These studies have mainly used student teams as research data (e.g. Glikson and Erez, 2013; Kahai et al., 2007; Kayworth and Leidner; 2002; Mockaitis et al., 2012; Rains, 2005), and although they have provided much knowledge about virtual teams, not all of it can be applied in business settings. Thus, it is imperative to collect additional data outside the university setting.

Additionally, the majority of virtual team studies are still conducted in temporary teams or project teams (e.g. Crisp and Jarvenpaa, 2012; Iorio and Taylor, 2015; Lee-Kelley and Sankey, 2008; Verburg et al., 2013). In earlier research, a typical virtual team was characterized by a temporary life span and interim membership (Avolio et al., 2001; Bell and Kozlowski, 2002), and some scholars still see virtual teams as temporary arrangements (e.g. Kahai et al., 2007). A great deal of virtual work does occur in project teams, but the reality in many current organizations is that virtual teams are established and built to be more or less permanent. Although the team compositions may change with team members coming and going, the teams usually operate together for a long time, mostly on a permanent basis and in rather similar settings for years (e.g. Avolio et al., 2014). This has a relevant impact on the work of virtual team managers and the challenges faced by them, as the manager and the team members must plan their work for the long term.

Further, the focus of virtual team studies has often been on expert groups such as software developers, information technology professionals, consulting, research and development (e.g. Cramton and Webber, 2005; Edwards and Sridhar, 2005; Giuffrida and Dittrich, 2015; Siebdrat et al., 2009). Although these teams use virtual collaboration a lot and are certainly competent with technological devices, it is important to learn more about "mixed" or "normal" business teams, including professionals in marketing, finance, human resources, and engineering, and how they work in a virtual context. By studying "mixed" teams, we get a much broader picture of managerial work in the multiple roles of organizations. According to many current studies, research examining cross-organizational virtual teams is still limited (Gibson et al., 2014; Gilson et al., 2015).

Finally, the majority of the virtual work research during the past two decades has used quantitative methods (e.g. Crisp and Jarvenpaa, 2012; Golden and Veiga, 2008; Joshi et al., 2009; Luther and Bruckmann, 2010; Sarker et al., 2011). According to the most recent reviews (e.g. Gilson et al., 2015), there are now a number of qualitative case studies (18%), but to understand the complexity of the new organizations there is a need for deeper understanding of how organizations and people operate in a fast-changing environment. Hence we need qualitative data, i.e. in-depth case studies, interview studies, and ethnographic studies to zoom deeper into virtual teams and to listen to how actors talk about their work and make sense of it. As quantitative methods may not be able to zoom into the inner life of individual managers or get a grip on their work, qualitative methods become relevant for deepening our understanding of sense-making by managers.

1.4 Purpose of the study and the research question

The purpose of this study is to explain how managers make sense of their work and how they describe and give meaning to it and thereby contributes to the existing literature on global virtual teams. These teams are permanent rather than temporary and consist of functional specialists from various units. As stated in the previous section, the current scholarly literature on global virtual teams has examined virtual work mainly from the perspective of global teams, and for example described their challenges, opportunities, leadership requirements and success factors.

The primary research question is: how do managers talk about their work with global virtual teams? The primary research question is followed by sub-questions in each essay, presented in part II. Table 1 summarizes the essays of this dissertation, including the main research question and the sub-questions.

Table 1. Research question and summary of the essays in this dissertation

Essays	How do managers talk about their work with global virtual teams?				Status of essays
	Title	Research question the essay aims to answer	Data sources for the essay	Authors	
1	Crossing thresholds for influence in global virtual teams	How do managers talk about their attempts to influence their employees and how does influence play out in their practices in virtual contexts?	36 interviews, observations, documents	Johanna Saarinen	Unpublished, an earlier version presented at the INGroup Conference (Raleigh, NC, US) July 19, 2014
2	Dynamics of trust and commitment in global virtual teams	How do managers talk about trust and commitment in their daily practices and interactions? How are trust and commitment related to each other in managing global virtual teams?	36 interviews, observations, documents	Johanna Saarinen	Unpublished, an earlier version presented in Nordic Academy of Management meeting (Reykjavik) August 21, 2013
3	Management is back. Cross-cultural encounters in virtual teams	How do cross-cultural management and leadership play out in managers' work in global virtual teams?	25 interviews, observation, documents	Johanna Saarinen and Rebecca Piekkari	Published in *The Routledge Companion to Cross-Cultural Management* (eds. Holden et al., 2015)
4	Living with inadequacy and guilt: managers' emotions in global virtual teams	How do managers talk about their emotions in their work with global virtual teams? What kinds of emotions arise in their work with virtual teams?	36 interviews, observation, documents	Johanna Saarinen	Unpublished, an earlier version presented in XII International Studying Leadership Conference (Rome) December 15, 2013

1.5 Key contributions of the study

This section presents the key contributions of my study. Although each essay makes its own distinct contribution to the current theoretical understanding, they all share a common underlying theme and contribute to increase knowledge of the managerial work of global virtual teams. The overall aim of this dissertation is to enhance our understanding of managerial work in global virtual teams. My study complements the extant literature by explicitly and uniquely focusing on managers' own experiences and their talk about making sense of their work.

First, managerial work in multinational organizations has changed radically because work has become more global and more virtual. Although virtuality offers numerous opportunities for organizations and managers, such as cost savings and an opportunity to make use of global knowledge, virtual contexts restrict managerial work in global organizations. These restrictions, such as the inability to meet employees at frequent intervals, make it difficult for managers to operate as they might wish. According to the findings of my study, managers of global teams cannot achieve the quality of managerial work they seek; virtuality "narrows" their scope to operate. New technology to serve global organizations and their people, including very sophisticated software and hardware, has developed fast. These new technologies offer all kinds of advanced tools for managers, for instance social platforms, virtual walls, and video screens to help them in collaboration with their employees and colleagues. But despite all these possibilities, managers are of the opinion that no technology can replace face-to-face contact with their employees.

The existing literature on global virtual teams highlights the complexity of virtual work and various managerial challenges (e.g. Gilson et al., 2015; Hambley et al., 2007; Jonsen et al., 2012; Kahai et al., 2007; Kelley and Kelloway, 2012), the opportunities it can offer for virtual team members (e.g. Nurmi and Hinds, 2016), and the unique skills needed to overcome the complexity of virtual work (e.g. Hertel and Orlikowski, 2014; Kayworth and Leidner, 2002; Verburg et al., 2013). My results support these findings, but also shed new light on the experiences of managers in their work and how they see the limitations of virtuality as additional challenges in a virtual context. For example, managers said that their opportunities to transfer energy, to create team spirit, and to engage team members were clearly narrowed in a virtual context. Moreover, current literature highlights the importance of knowing the team members in virtual environment (e.g. Bergiel et al., 2008; Hinds, 2016; Hinds and Cramton, 2015; Martins et al., 2004; Powell et al, 2004). My findings show that although the core teams are typically rather permanent in global organizations, their compositions may change quickly, new members come and go, many people work in multiple teams simultaneously, and face-to-face meetings take place rarely, all of which make it difficult for managers to learn to know their people and hence pose challenge to their managerial work.

Secondly, this thesis contributes to the literature on the managerial work of global virtual teams by highlighting the feelings of managers. The managers felt inadequate; their employees expected more personal support and care from them and they tried themselves to be more “people-oriented”. However, in virtual environments, the managers drifted into task-oriented work and were consequently disappointed in themselves. In addition, the multiple expectations of company and employees, the feeling of being between a rock and a hard place, made them feel inadequate, frustrated, and guilty.

Current research on global virtual teams discusses the emotions in virtual work (e.g. Ayoko et al., 2012; Eligio et al., 2012; Pitts et al., 2012; Purvanova and Bono, 2009; Wilson et al., 2006), but fails to recognize the emotions of virtual managers. In global virtual work with multicultural big teams and a multitude of expectations, a sense of inadequacy is often present. Managers’ strict sense of duty and their high ambitions and aspirations to do their work as well as possible add to the burden. Despite valuable discussion on the well-being of global managers (see e.g. Maynard et al., 2012; Nurmi, 2011; Powell et al., 2004), existing literature does not recognize the emotions of managers when they try to cope with long days, stress, time zones, and work-life balance. According to my findings, inadequacy was most typically experienced by middle managers who faced expectations from many directions and had not yet learned to handle the pressure of global work. However, the picture given by the research participants of my study was not only negative. Most managers also emphasized the many positive elements in their work, such as exciting tasks, the richness of cultural differences, extensive opportunities to learn global work and develop various skills, and in addition to negative emotions, they derived joy and satisfaction from their managerial work.

Thirdly, despite feelings of inadequacy and guilt, the managers of my study were constantly looking for ways to improve their work. They tried and tested better solutions for managing their work, supporting their employees better, and surviving the heavy work load. They persistently and innovatively searched for different ways to cope, such as practices, processes and structures for their work and personal life. They learned to protect themselves and created coping strategies. They eventually found a way to meet these challenges and this helped them live with their feelings of inadequacy and guilt.

Earlier studies have highlighted the importance of work processes and practices in virtual work (e.g. Klitmoller and Lauring, 2013; Piccoli et al., 2004; Verburg et al., 2013; Watson-Manheim et al, 2013). These structures and work processes may help virtual team managers to organize their work and monitor team performance. In addition, practices are known to help managers cope with stress (Nurmi, 2011) and lessen the burden of global work (e.g. Zander and Butler, 2010). The managers in my study also used practices to protect themselves from long working days, working across times zones, and feelings of inadequacy and guilt. They became problem-solvers who were constantly able to improve work with their teams.

1.6 Limitations of the study

This study is subject to the following limitations. First, the rich body of research on global virtual teams includes many streams of literature and one main focus has been on comparing the differences between virtual and face-to-face (co-located, traditional) work. In my study, the aim is not to compare the work of managers in these two contexts or to assess how face-to-face work and virtual work differ, but to focus on how managers describe and talk about their work. Secondly, existing research has indicated and assessed how virtual teams can be successful and what factors lead to high-performance team outcomes (e.g. Zander and Butler, 2010). These performance outcomes of global virtual teams are outside the focus of this study unless the managers discuss them in their descriptions. Similarly, I have not intended to conduct a normative study by trying to identify what kind of managerial work is successful or how global virtual teams should be managed.

Thirdly, I have intentionally focused on the managerial perspective in my study. This means that I did not address interaction among subordinates (employees) or team members, but managerial work from the perspective of managers. Further, my aim is not to cover all areas of managerial work in global virtual teams, but only those which emerged in the data (e.g. how managers talk about their work in a virtual context).

I use the concepts of leadership and management, as well as leaders and managers interchangeably in my thesis (see Section 2.1.). The literature on global virtual teams predominantly uses the term virtual leadership and discusses, for example, the leadership styles that succeed in virtual environments. I did not study leadership behavior or styles, but managers' experiences of their work, and leadership and management are interchangeable as concepts. However, Essay 3, which discusses "hard management" and distinguishes between people leadership and task management, is an exception. Further, when talking about managerial work, I did not address leadership styles or state which leadership mode, for example single team leadership or shared leadership (e.g. Zander and Butler, 2010), is better. In my data, shared leadership, currently one of the emerging themes in the literature on global virtual teams (e.g. Hoch and Kozlowski, 2014), was seldom used in the organizations where the managers worked. Hence it is not one of the focal themes of global virtual work in my study.

Methodologically, the present study is qualitative interview research and its results are not supposed to be generalizable or transferrable to other data and contexts. The priority was instead to produce a rich description of the phenomenon in its contexts, shedding more light on managerial work in global virtual teams by giving voice to the managers themselves. However, to understand managerial work even better, I could also have interviewed employees. Although I spoke with them frequently, their talk is not included in the research data. However, most of the research participants also worked as employees, and reflected on their experiences in work as subordinates in global virtual teams. The interview method also set certain limitations (see Macdonald and Hellgren, 2004). Compared with observations, for example, interview data do not occur naturally, but are "manufactured" in a certain sense. Some interviewees may also engage in impression management or pursue hidden agendas. In addition to interviews, I followed numerous virtual meetings and chat discussion on social platforms, Intensive observation data with video or voice recording could have offered a richer picture of what was happening in the managerial work. However, I primarily drew on interview data rather than on other data sources such as videos.

Finally, the research participants of my study represent one company in a certain kind of industry. Hence the special features of this company and its managers set boundary conditions to the findings of the study. The main part of the data consists of interviews of Finland based managers, the company having its headquarters' in Finland. Majority, i.e. 62% of the research participants are male and have engineering as their professional and educational background. This makes the data set relatively homogenous, although the positions and business organizations of the research participants vary a lot. I have not paid particular attention to the differences of male and female managers and how they talk about their work. In addition, the company has strong global processes and structures, which guide managers' work and company expectations.

1.7 Implications for the practice of managerial work in global virtual teams

The practical relevance of this study stems from the understanding of managerial work in global virtual teams that it provides. The findings of my dissertation have several managerial implications for the managers of global virtual organizations. Learning from managers' experience can help organizations to support virtual managers and develop training programs for them. Research indicates that only a small number of organizations have offered training programs to prepare virtual team managers (e.g. Rosen et al., 2006). According to many current studies (e.g. Jonsen et al., 2012), virtual teams can reach maximum effectiveness with appropriate support from the organization and support for virtual managers can lead to better results. Even when available, such support and training are provided too late; most managers in my study also said they had learned their work through trial and error. Also, business schools and universities should focus more on developing the critical competencies needed to lead global teams from a distance. Hence, I would argue that there is a great need to increase training and develop skills for operating in a virtual environment. My dissertation provides abundant material and insights on such training for managers in global companies.

Global companies need people with excellent and specific skills for global work, e.g. strong communication skills. It would be beneficial in the selection of managers for companies to carefully define what competences are needed for managing global teams and to use this knowledge in the recruitment process and assessment. In addition, assignment of managerial responsibilities in an early stage could provide important training for meeting the demands of managerial work in a virtual environment.

For managing global virtual teams, certain organizational practices may facilitate the work of managers with teams. First, to avoid virtual work overload, organizations should be able to reduce the number of virtual meetings and evaluate the importance of different kinds of meetings. Part of the communication can be managed by sharing information in written form, for example at connection sites or SharePoint. Teams should also pay attention to the length and content of virtual meetings. Sometimes longer meetings make sense if they allow more time for informal discussions and help in building the personal relationships needed to get to know team members and build trust with them. In addition, sharing proper meeting guidelines improves the quality of work: for example, how to prepare for virtual meetings (e.g. to make an agenda and study the background material), how to behave in virtual meetings (e.g. to give all participants equal opportunities to talk,), what channels (e.g. chats and question spaces) are available, who facilitates the meetings, and how to use different collaboration technologies. Although technology develops continuously, the connections will still fail in too many virtual meetings and create frustration and time loss. It is also important to review regularly who can contribute to the meetings and whose participation is unessential.

Organizational practices can also support managers in building relationships with their employees. For example, opportunities to meet face-to-face regularly enable managers to learn to know their team members better and exert an influence on them more effectively. With tight and limited travel budgets this is sometimes difficult for many managers. Investing in site visits is important and helps managers to build interpersonal closeness with team members (see also Hinds, 2016). Moreover, building relationships takes time, and it would therefore be important not to alter team compositions unnecessarily. In many organizations, managers and team members change positions and teams very often, and although this may be good for career development and learning, it sometimes hinders team building and the efforts of managers to influence team members or build trust.

It is also important for organizations to support virtual managers by providing reasonable team sizes, good role models, and sustainable expectations. Companies can consider whether their expectations are reasonable and accept that managers may also need additional support. Support in handling demands and in striking a balance between their personal and professional lives will certainly facilitate managerial work. Mentoring can be actively utilized in supporting managers. Mentoring programs in which more experienced people guide managers also provide an opportunity for managers to handle their emotions in a safe environment. Similarly, in peer coaching programs colleagues can share their best practices and support their peers in virtual work. These activities also focus leadership culture more on the abilities of managers to support and help them learn. Managing virtual teams should not be "hard management," but focus on supporting employees, giving them adequate feedback and coaching them.

1.8 Avenues for future research

With the benefits of ever accelerating and exponential technological development, virtual work will continue to increase and change in all organizations; virtual teams are said to be one of the fastest-changing facets of managing (e.g. Jonsen et al., 2012). With the increased bandwidth and new, advanced software applications available, communication with technology will become increasingly versatile, and storing and accessing information, for instance, will be easier and cheaper. The next generation of virtual team workers, who may see virtual work as the only way to work, will be able to utilize this technology effectively. These digital natives are used to creating relationships via technology and learn to lead organizations of 200 people (e.g. in "Warcraft" -games) at the age of 12. With increased comfort and acceptance of technology, they will take virtual work as the norm and many of the present challenges associated with virtual work may be overstated in the near future (see also De Paoli, 2015; Gilson et al., 2014). This will also open new avenues for virtual team research. For example, it will be interesting to see how younger generations challenge the managerial practices in virtual world.

This study provides opportunities for examining managerial work in global virtual teams in future studies. The future of the workplace will mean more work and less place (see Ediriweera, 2016), given the impact of new technologies, an uncertain economy, and the demands of a new generation of employees. These trends provide freedom and flexibility, but also greater expectations. This will necessarily impact managerial work and the workload and well-being of managers. In the face of these demands, balancing between their life quality and work may become a great challenge. In addition, virtual communication can be emotionally charged (Cheshin et al., 2012). The findings of my study suggest that managerial work in global virtual teams today is demanding, intensive, and consuming with long working days. These features are unlikely to change in the future. Hence future studies could focus on the affects, emotions, and time management of virtual teams and members to discover how adoption of newer technologies, for instance, can benefit the well-being and quality of life managers.

As time moves forward, technology will move fast and will have an ever greater effect on the way we process information, interact, and collaborate with each other. In future studies it will interesting to explore how to use technology without losing the beauty of personal relationships, sensitivity, and the interaction that makes us human. Virtual workforces will have to adapt to rapid business cycles, constant turbulence, rapid skill obsolescence, and real-time communication everywhere. It will be interesting to explore how these changes and increasing complexity will formulate managerial work in global virtual teams.

1.9 Structure of the thesis

The structure of this essay-based thesis is presented in figure 1 below. The dissertation contains two parts (I and II). Part I of the study is composed of four chapters. The introduction (Chapter 1) provides an overview introducing the research questions. It also concludes the key contributions of the study, summarizes the practical implications, and suggests avenues for future research. After the introduction, Chapter 2 presents the essential concepts and theoretical lenses of the study. This positioning chapter reviews how the existing literature has studied management in global virtual teams. Moreover, it aims to focus on the work of individual) managers, their tasks, competences, and challenges. Chapter 3 presents the methodological considerations and epistemological and ontological commitments of the study, as well as the background for choosing the research site. The quality of the study is assessed at the end of the chapter. Chapter 4 reviews the key findings of the original essays. Finally, Part II (Chapter 5) of the study is composed of four essays. Figure 1 presents the structure of the thesis.

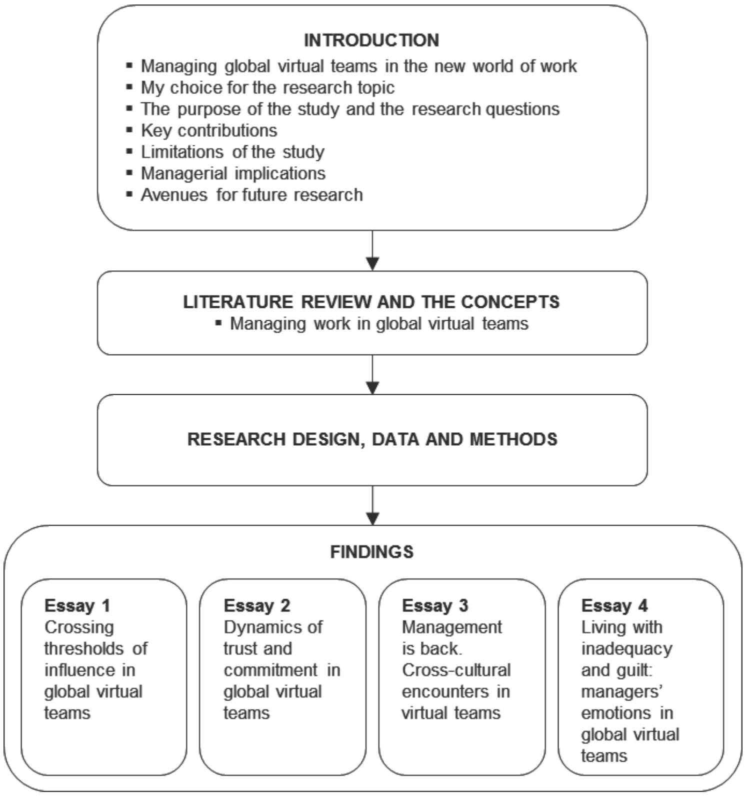

Figure 1. Thesis structure

2. Managerial work in global virtual teams

2.1 Defining the core concepts

Virtual teams are defined as groups of employees, who collaborate primarily through electronic means, i.e. communications technology, and are dispersed by geography and time (e.g. Aubert and Kelsey, 2003; Bell and Kozlowski, 2002; Jarvenpaa and Leidner, 1999; Kirkman et al., 2002). The current conceptualization focuses on the geographical separation between team members and on their reliance on information and communication technology (Chudoba et al., 2005; Gibson and Gibbs, 2006; Gilson et al., 2015). Such technology can include text-based communication and audio media. Text-based communication can include emails and share points which are primarily used for knowledge sharing, updating, and documentation purposes. Audio media can include telephone calls (for fast interaction), online meetings (e.g. Lync and Skype which are mainly used internally), chatting (for asking simple questions and getting immediate answers), video conferencing, social networking, social platforms, discussion boards and virtual walls. Technology produces ever more advanced, cost-effective, and sophisticated groupware and ensures that virtual world environments are nowadays available to more people than ever before.

To define virtual teams, some researchers emphasize the nature of remote work versus co-location and use the term “remote teams” (e.g. Kelley and Kellogan, 2012), while others consider the (geographical) distribution of team members relevant and prefer using the concepts “distributed teams” (e.g. Hill and Bartol, 2015; Hinds and Cramton, 2014) or “dispersed teams” (e.g. Klitmøller et al., 2015). Most scholars use virtual, distributed, and dispersed teams almost as synonyms (e.g. Al-Ani et al., 2011), whereas some make a clear distinction between the concepts (e.g. Bosch-Sijtsema et al., 2011). In my study, I will use the concept virtual team to mean teams that work primarily virtually (through technology) and include members who are distributed in different locations (and countries). More specifically, I will use the term global virtual team to refer to the global work typical of multinational organizations.

Global virtual teams (commonly abbreviated as GVTs) work across time and space as well as organizational and cultural boundaries. They are generally defined as groups of people who (1) work together using communications technology, (2) are distributed across space, (3) are responsible for a joint outcome, (4) work on a strategic or technically advanced task, and (5) are multifunctional and/or multicultural (e.g. Chudoba et al., 2005; Gibson and Cohen, 2003; Gibson and Gibbs, 2006; Zander et al., 2012). Managers who lead global virtual teams need to ensure that the best individuals are available for a given task, such as developing new products and processes and running projects, have access to the same information, and can complete tasks quickly from their locations (i.e. home countries), typically close to the customers (see Daim et al., 2012; Jarvenpaa et al., 1998; Maynard et al., 2012; Maznevski and Chudoba, 2000). The typical size of these teams is 5-10 members, who work daily together to share information, define goals, follow-up team's progress and support each other. In addition, members of global virtual teams are likely to represent different specialist functions and to have multiple reporting lines, i.e. work in a matrix organization. Moreover, some scholars (e.g. De Paoli, 2015; Siebdrat, 2009) also use the term "hybrid teams". These teams are dispersed on some level, temporally separated, or configurationally uneven. In my study, I use the concept "global virtual team", although part of the teams may be hybrid, i.e. some team members work virtually and others are co-located.

One dimension common to all existing virtuality constructs is the degree of dependence on electronic communication among team members (Chudoba et al., 2005; Gibson et al., 2014; Gibson and Gibbs, 2006; Gilson et al., 2009). Virtuality in an organizational context is the use of virtual space to facilitate interaction relating to organizational activities. The attribute "virtual" designates distributed work that is predominantly based on electronic information and communication tools (e.g. Gibson and Gibbs, 2006; Hertel et al., 2005). Shekhar (2006) provides a model for virtuality that accommodates the major manifestations of virtuality in an organization. They can manifest themselves in different ways, such as telework, e-learning, virtual teams, outsourcing or off-shoring, virtual communities, virtual linkages, electronic market places, and technology-facilitated business activities. The virtual organization has been defined as an environment in which workers are electronically connected but not physically. Virtual work or virtualized work (Johns and Gratton, 2013) can be differentiated depending on the number of persons involved, the degree of interaction between them, the outcomes, and the degree of virtuality of the team (e.g. Chudoba and Watson-Manheim, 2005; Griffith and Nealy, 2001).

Previous research uses different, although similar concepts when discussing leadership in virtual teams, depending on the origin and the perspective of the virtual work. While the most commonly used term is virtual leadership, some scholars also refer to virtual management, although they are in fact referring to the same phenomenon. Avolio et al. (2001 and 2014) speak about e-leadership and define it as a social influence process embedded in both proximal and distal contexts mediated by advanced information technology (see also Annunzio, 2001; DasGupta, 2011; Zaccaro and Bader, 2003). D-leadership (distance leadership) refers to the distance between individuals and team members (Fischer and Fischer, 2000) and distributed leadership (e.g. Hill and Bartol, 2015; Verburg et al., 2013) refers to managing employees who are distributed to different locations. Moreover, some scholars refer to mobile management or remote management or remote leadership (e.g. Kelley and Kelloway, 2012), and argue that relationships are differentially related to the context in which they occur: proximal versus remote. In this study, management and leadership of virtual teams are used interchangeably. The basic concepts of virtual leadership or virtual management (as well as those of virtual manager and virtual leader) also seem to be typically used in the existing literature "at random" or interchangeably, without emphasizing a difference between leadership and management. However, we may generally understand leadership as more people-oriented and management as more task-oriented. Finally, by managerial work in this study, I mean work carried out by people in any supervisory, managerial, or leadership position at all levels of the organization. In this study, managers manage global virtual teams of various sizes and various compositions, working mostly virtually with their employees.

2.2 Opportunities and challenges in virtual work

Much has been written about how virtual work and virtual teams differ from face-to-face, co-located, traditional, or conventional teams (e.g. Fiol and O'Connor, 2005; Gibson and Cohen, 2003; Kirkman et al., 2002) and in this section I will describe the opportunities and challenges associated with virtual work and virtual teams.

Virtual collaboration provides obvious opportunities and advantages for organizations that can use teams to ensure that the best individuals are available for a given task and can work in different locations to be closer to the customers. Thus electronic communication provides managers and team members with a range of new opportunities to access relevant expertise and gain the flexibility needed to work (e.g. Hill et al., 1998) and to develop and utilize effective communication techniques (e.g. Gibson et al., 2014), and further, with the ability to communicate instantly with employees, customers, and suppliers, the capability to use talent wherever it exists, and thus scope for better knowledge management (e.g. DasGupta, 2011). The need to exploit local expertise when necessary and responsiveness to the local market and customers' needs have been identified as generic and important benefits of virtual work. In addition, virtual teams tend to incorporate increased heterogeneity and higher levels of structural and demographic diversity than collocated teams, and this diversity can be highly beneficial (Siebdrat, 2009).

Virtual work is also associated with potential benefits related to economy and efficiency such as reduced travel or savings in travel costs and real estate. Real estate cost savings, which can provide cost reductions of up to 60% in virtual work (Thompson and Caputo, 2009), are associated with employees working outside offices. Moreover, virtual work offers environmental sustainability associated with for example commuting costs and travel. Further, virtual collaboration may offer long-term benefits through improved scores on human capital metrics such as increased employee performance, team member satisfaction (Henderson, 2008; Wilson et al., 2013), and employee productivity. These may result in improved recruitment, organizational attraction, corporate sustainability, and retention (see Thompson and Caputo, 2009). For example, virtual work may help retain valuable employees when personal circumstances dictate physical location. According to recent studies, particularly young employees, “Gen Y’ers” and “Millennials” are known for their expectations regarding the work-life balance, flexibility, and independence afforded by virtual work (see e.g. Myers and Sadaghiani, 2010; Tapscott, 2008; Thompson and Caputo, 2009).

Virtual teams can also perform better than co-located teams. It is too simplistic to claim that virtual collaboration is always less effective (e.g. Montoya et al., 2009; Staples and Zhao, 2006). Visual anonymity, for example, can be advantageous for some team members; electronic communication provides time to digest information (Jonsen et al., 2012) and team members who in face-to-face interaction are shy about expressing their opinions may have more courage in virtual encounters. Findings on effectiveness and use of languages are among the new positive implications for virtual organizations. For example, Klitmoller and Lauring (2016) explored inclusive language use in virtual work and demonstrate that distance can be positive. In their study they demonstrate a positive association between workplace mobility and perception of openness to language diversity. Another recent study by Nordbäck and Small (2015) pointed to the benefits of shared leadership in virtual teams, suggesting that task and team design can help global virtual teams overcome some of the barriers to shared leadership. Moreover, in their study of global workers, Nurmi and Hinds (2016) found elements unique to global work that may transform challenges into opportunities, i.e. learning possibilities, a sense of task significance, and experienced meaningfulness. They reported how global workers found their work interesting because of cultural and task diversity and considered the opportunities for professional learning very important for them.

Despite the numerous abovementioned opportunities and benefits, virtual work poses several challenges to the work of virtual managers and virtual teams. Differences in time, location, culture or combinations of these factors provide substantial obstacles to global virtual teams (e.g. Hinds et al., 2011; Kirkmann et al., 2013; Klitmoller and Lauring, 2013; Mockaitis et al., 2012). Electronic communication uses “leaner” media, which may be problematic because so much of the meaning in communication is derived from the non-verbal aspects that are typically absent in virtual communication (e.g. Gibson et al., 2014). When social and non-verbal cues are generally missing, the ability to observe the behaviors of other team members during communication is weakened. Although non-verbal cues can be available to a certain extent in some technologies (e.g. video conferencing), several studies point out that due to a lack of visual and auditory cues misunderstandings and misinterpretations are common in virtual communication (e.g. Daim et al., 2012; Zimmermann et al., 2008), and the complexity of collaborating with global team members is not exaggerated (Miloslavic et al., 2015).

In global work, different cultural backgrounds pose opportunities and challenges to virtual teams (e.g. Lacarenza et al., 2015; Meyer, 2015; Sarker at el., 2011). Although cultural diversity and richness provide an interesting and exciting work environment for virtual team members, most empirical research associates cultural diversity with negative experiences (e.g. Au and Marks, 2012; Gibson and Gibbs, 2006; Stahl et al., 2010). For example, communication and coordination difficulties have been reported as typical challenges (e.g. Maznevski and Chudoba, 2000; Zander et al., 2013) in virtual work. Cultural differences at the surface level may cause misunderstandings and difficulties in various ways, but according to Zander (et al., 2013, 229), "it is the deep-level invisible and unspoken cultural aspects with the taken-for-granted assumptions, often unrecognized by the individuals themselves, which cause the more serious problems." Moreover, leadership preferences, attitudes, and ideals differ across national borders and cultural boundaries, and also leadership behaviors and expectations have been strongly related to national culture (Zander et al., 2013). Cultural differences may also produce language issues (e.g. Brannen et al., 2014; Hinds et al., 2014; Klitmoller and Lauring, 2013; Neeley et al., 2012; Tenzer et al., 2013). According to Snyder (2003), "even when employees have good language skills, they naturally interpret written and verbal communication through the filter of their own culture." Silence, for example, is very easily misinterpreted and misunderstood; it does not necessarily mean either a lack of concentration on the topic at hand, or the contrary, an intensive effort to listen and think (De Paoli, 2015).

Virtual work often means physical distance from employees and colleagues and may create a lack of familiarity between the team members and the manager, who seldom meet each other and learn to know each other more slowly than in face-to-face teams. Virolainen (2011), for example, found that a virtual working environment decreases informal personal communication; discussion is mainly work-related and this affects social relationships between co-workers. Similarly, Elron and Vigoda-Gadot (2006) found that limited familiarity with virtual team members was associated with the possibilities of managers to exert an influence. Related to familiarity, a sense of belonging may decrease in virtual work; it may be more difficult to belong to a team when team members rarely meet. Isolation and loneliness have also been identified as typical drawbacks in virtual work (e.g. Avolio et al., 2014; Coope and Kurland, 2002; Jarman, 2005; Mulki and Jaramillo, 2011; Rogers, 2011). In addition, a number of recent studies (e.g. Hinds and Cramton, 2014;

Maynard, 2015) suggests that overcoming the weaknesses of virtual teams is easier when team members know each other.

The outcomes achieved by virtual teams are affected by the nature of virtual work, which has been said to complicate trust building (e.g. Jarvenpaa and Leidner, 1999; Zolin et al., 2004), decrease performance (Carte et al., 2006; Martins et al., 2004), to take different approaches to conflict resolution (Bergiel et al., 2008; Montoya-Weiss et al., 2001; Mortensen and Hinds, 2001), to have a negative effect on commitment (Chudoba et al., 2005), to complicate relationship building (e.g. Bell and Kozlowski, 2002; Pinjani and Palvia, 2013), to decrease overall openness to knowledge sharing (e.g. Mesmer-Magnus et al., 2011; Rosen et al., 2006), and to have a negative impact on the well-being of virtual team members (Nurmi, 2011). Finally, according to a number of researchers, the most important challenge posed by virtual work should be addressed at leadership (e.g. Jonsen et al., 2012; Wildman and Griffith, 2015; Zander et al., 2012; Zimmerman et al., 2008). According to these scholars, this is because the leadership of global virtual teams can have a huge impact on the effectiveness and performance of these teams and it is the managers of these teams who can make the difference. Hence in the next section, I will review and analyze previous studies on leadership in global virtual teams.

2.3 Leadership in virtual teams

The existing literature agrees that leadership in virtual teams is important and managers play a central role in virtual team functioning (e.g. Bell and Kozlowski, 2002; Gilson et al., 2015; Hill and Bartol, 2015; Malhotra et al., 2007; Martins et al., 2004, Zigurs, 2003). According to the majority of the current scholars (e.g. Hambley et al., 2007; Kahai et al., 2007; Kelley and Kelloway, 2012; Jonsen et al., 2012; Siebdrat, 2009; Zander et al., 2013), virtual work creates new and greater managerial challenges and forms a new context for leadership and management; managers cannot lead virtually as they would in face-to-face situations. Similarly, also using the term e-leadership, prior research (e.g. Avolio et al., 2014) has found that communication technology affects the leadership dynamic and virtual contexts make leadership different from leadership in traditional physical contexts; it is more complex than traditional leadership and thus requires different mindsets, behaviors, and strategies (e.g. Colfax et al., 2009; Kahai et al., 2012; Wakefield et al., 2008). In addition, as they often work in matrix organizations, members of global virtual teams are likely to represent different specialist functions and have multiple reporting lines. This means leadership is potentially more difficult because it requires collaboration, co-operation, co-ordination, and commitment with a team that does not report directly to the manager.

Two popular areas of leadership research, particularly in virtual environments, have been leader (manager) behaviors and traits (see e.g. Gilson et al., 2015). There are several theoretical approaches to the studies of leadership, but one well-known and contemporary framework, also frequently used in research on virtual leadership, is transformational/transactional leadership (see Bass and Avolio, 2001). Prior literature on virtual teams has extensively examined the effectiveness of transformational and transactional leadership in virtual teams (e.g. Hambley et al., 2007; Huang et al., 2010; Joshi et al., 2009; Lojeski, 2010; Purvanova and Bono, 2009). It has been suggested that transactional leadership, which focuses on the role of supervision, organization, and group performance, improves the task cohesion of virtual teams (e.g. Huang et al., 2010). However, the majority of the earlier studies emphasize the importance of transformational leadership in a virtual context. For example Purvanova and Bono (2009) argued that leaders who increased transformational leadership behavior, such as motivating, inspiring, and creating vision, increased the performance, satisfaction and motivation of team members (see also Chen et al., 2012; Joshi et al., 2009; Zander et al., 2013). Similarly, according to Kelley and Kelloway (2012), context matters in remote environments because it influences perceptions of transformational leadership. In a remote environment, context is fundamentally different and omnipresent that it filters the way in which individuals perceive and interpret the behavior of leaders. In addition, according to the findings of studies on emergent leadership (e.g. Carte et al., 2006), empowering leadership (Bell and Kozlowski, 2002; Hill and Bartol, 2015; Kirkmann et al., 2004), and supportive leadership (Schepers et al., 2011) in virtual work, transformational leadership is important for the effectiveness of virtual teams.

Previous research on leadership in (global) virtual teams has focused on various leadership challenges: how to build virtual teams (e.g. Gibson and Cohen, 2003; Malhotra et al., 2007; Nijstad, 2009), leadership effectiveness and team performance (e.g. Chen et al., 2011; Cogliser et al., 2012; Joshi et al., 2009; Neufeld et al., 2010; Powell et al., 2004; Purvanova and Bono, 2009; Symons and Stenzel, 2007), how to build trust in virtual environments (e.g. Crisp and Jarvenpaa, 2012; Hill et al., 2009; Jarvenpaa and Leidner, 1999; Malhotra et al., 2007; Pinjani and Palvia, 2013; Wang and Emurian, 2005; Wilson et al., 2006; Zolin et al., 2004), team cohesiveness (Maznevski and Chudoba, 2000), how to gain commitment in virtual work (Crossman and Lee-Kelley, 2004; Golden and Veiga, 2008; Hertel et al., 2005; Jacobs, 2006), how to manage different cultures and languages in virtual teams (Lauring and Selmer, 2012; Zander et al., 2012); and how to manage conflicts (Hinds and Bailey, 2003; Hinds and Mortensen, 2005). These above-mentioned studies have broadly demonstrated interest in leadership topics in virtual work and pointed out the multitude of challenges to leadership and management in virtual environments.

Leadership is generally thought to exert a direct effect on team processes (Zaccaro et al., 2004), which are the ways in which team members transform inputs (such as the contributions and skills of employees) into outputs (solutions). Regarding managerial work in virtual teams, team processes can be generally classified into two categories: task-related and socio-emotional (e.g. Bell and Kozlowski, 2002; Hambley et al., 2007; Malhotra et al., 2007; Siebdrat, 2009; Yoo and Alavi, 2004). As in all managerial work, both processes are necessary in virtual work, including both task-focused and relational skills (Bell and Kozlowski, 2002), although they may be used differently. It is also seen important for a manager to know when to switch between tasks and relations (Zander et al., 2013). Siebdrat (2009), for example, found that task-related processes are the most critical for the performance of virtual teams. Teams with poor task-related processes suffered greatly from increased dispersion. Similarly, Hanson (et al., 2012) found that in virtual teams task-oriented leadership became more relevant than relationship building and that virtual teams even neglected socio-emotional processes (e.g. Hanson et al., 2012). According to many earlier studies (e.g. Jonsen et al., 2012), any kind of team will face challenges if it lacks clear goals, task structures, or common purposes. In a virtual context, however, the role and clarity of managers in these aspects becomes more crucial.

However, particularly the most recent studies on virtual work (e.g. Caulat, 2012; De Paoli, 2015; Pinjani and Palvia, 2013) focus on socio-emotional processes and relational aspects in leadership and managerial work. General contemporary trends in leadership emphasize relationship building, cohesion, trust, coaching, support, listening and participatory leadership (e.g. Hill and Bartol, 2015; Koivunen and Viitala, 2013). Moreover, so-called servant leadership (Barbuto and Wheeler, 2006; Neuschel, 2005) and appreciative leadership (Whitney et al., 2010), which build on realizing potentiality and positive power, are examples of modern people-oriented leadership, and these trends also apply to virtual management. Thus, new approaches to virtual management studies seem to advocate a more relational than strictly task-oriented approach to leadership, and according to Ruggieri (2009), leaders who focused on relationships rather than task-based factors were described as creative, intelligent, and original. Similarly, the role of managers seemed to become particularly important in relation-based work; it is the manager who sets the emotional tone of the virtual team (Hambley et al., 2007), inspires and motivates team members to work together, and transfers energy and passion across borders. These activities may be challenging when the manager communicates virtually without close contact or physical presence with the employees.

One area of interest in virtual leadership has been shared leadership. Given their specific nature, virtual teams may be very autonomous and employees independent and self-managed, particularly when they are knowledge workers. Leadership in these kinds of teams may be shared, i.e. people within a team lead each other. Shared leadership occurs when there is no formal authority, leadership responsibilities are distributed and enacted collectively among members, and decisions are made collectively (Pearce and

Conger, 2003). Shared leadership has attracted more interest as reflected in recent literature, and scholars suggest that the shared leadership approach potentially provides a more appropriate solution for virtual team management than classical, hierarchical leadership (e.g. Hoch et al., 2010; Houghton et al., 2015). Some research has already demonstrated that shared leadership in virtual contexts is positively related to team outcomes (e.g. Hoch and Kozlowski, 2012; Hoch and Kozlowski, 2014).

However, shared leadership may not be the solution for all kinds of virtual teams. A number of scholars on virtual teams have argued that leadership in virtual teams generally needs more structure than leadership in conventional teams (Gibson and Cohen, 2003; Hinds and Kiesler, 2002; Zander et al., 2012). The impact, action, and even authority of managers may therefore be needed. Although some scholars (e.g. Bell and Kozlowski, 2002) emphasize a virtual manager's need to distribute and delegate leadership functions and responsibilities to team members, the majority reminds us that virtual managers need to take straightforward leader actions (e.g. Davis and Bryant, 2003) and provide clear directions for their virtual teams (Kirkman et al., 2004). The processes in virtual work must be explicitly and carefully managed and coordinated (Jonsen et al., 2012). In co-located teams the interaction norms, for example, can be implicitly negotiated as team members observe and react to each other's facial expressions and other nonverbal behavior. In a virtual team there is typically limited opportunity for this.

To better understand managerial work in global virtual teams from the perspective of the (individual) manager, I will next approach it from the perspective of the managerial competencies and skills that have been demonstrated in the recent literature. I will explore what earlier studies have learned about managerial work, success factors, and the requirements of managers in virtual leadership.

2.4 Managerial competences and success factors in global virtual teams

Although earlier research on management and managerial work argues that current literature does not adequately capture what managers actually do in organizations (e.g. Tengblad, 2006), we do know that managers have to cope with multiple tasks, divergent demands, various disturbances, and uncertainty in their daily work (e.g. Tengblad, 2012). Further, managerial work is known to be hectic, fragmented and complex, and managers have to deal with considerable pressure and ambiguity, and with a multitude of often conflicting expectations. They also experience constant interruptions and spend much time responding to immediate problems (e.g. Holmberg and Tyrstrup, 2012; Tengblad and Vie, 2012; Sveningsson et al., 2012). Nowadays management typically takes place in complex environments and managerial work has been undergoing an enormous change at a fast pace, spurred by new technology, increasing customer demands, and competitive pressure. Managers have to be facilitators to empowered employees (Tengblad, 2006). Compared with earlier findings on managerial work (e.g. Mintzberg's study in 1973), one of the main differences is the substantial increase in total work load; managers in today's organizations work longer hours than they used to (see Tengblad, 2006).

Virtual communication generally adds complexity to the working environment and managerial work may become more difficult and complicated in a virtual environment. The findings of virtual work research have broadly demonstrated how changes in business environments have increased the daily challenges faced by managers and made their work more demanding (e.g. Zaccaro and Bader, 2003). While past research on leadership in virtual teams has emphasized certain leadership behaviors and traits important for team performance, managers' competencies have received less attention in the empirical literature (Konradt and Hoch, 2007). However, several earlier studies on virtual teams provide insight on what constitutes good virtual team management and how certain leadership behaviors and styles may affect team interaction and performance (Hambley et al., 2007; Martins and Schilpzand, 2011). This earlier research discusses whether virtual leadership requires special leadership skills (e.g. Rosen et al., 2006); some scholars say that skills are equally applicable across the spectrum of team contexts (Cascio, 2000; Zimmerman et al, 2008), while most agree that management in virtual teams requires additional knowledge and competences above and beyond traditional management skills (e.g. Hertel and Orlikowski, 2014; Kayworth and Leidner, 2002; Verburg et al., 2013; Ziek and Smulowitz, 2014). Using authority or charisma, for example, is potentially more difficult when communication with employees takes place basically through technology alone. After all, the research agrees that managers in today's global business need to grapple with complex demands and environments and working in global, virtual business has indeed increased the uncertainty, turbulence, and complexity of managerial work.

According to earlier research, virtual team management constitutes a broad set of competences and skills (e.g. Avolio et al., 2009). Although managerial work in global virtual teams includes many similarities to that in face-to-face teams, the greater complexity and limited communication opportunities pose significant challenges (e.g. Zaccaro and Bader, 2003). To make their teams effective, virtual leaders need to be able to enhance cohesion, nurture trust, and develop efficacy. Managers of all teams, virtual or collocated, have a number of responsibilities that they must discharge. These include communicating a vision, selecting the right members for the teams, building trust, setting goals, fostering communication, and recognizing contributions. Some of these may be difficult to achieve without the benefit of physical presence. Even mundane tasks such as scheduling can become complex when employees work in different time zones (e.g. Zigurs, 2003). Malhotra (et al., 2007) described the unique challenges for managers of virtual teams and highlight that they do not have the same powers of physical observation as managers in face-to-face teams and have to be creative in setting up structures and systems so that departures from expectations can be observed virtually. Moreover, managers of virtual teams require all the leadership and project management skills needed for leading a co-located team and more; virtual team managers must overcome the coordination barriers associated with working across distance and time, cross-cultural and language barriers, trust and team cohesion barriers, fight for commitment, build team cohesion, and establish norms for collaboration and knowledge sharing (Malhotra et al., 2007).

Existing research on virtual work has repeatedly stressed the importance of leadership and suggests that virtual teams demand leadership capabilities that are unique to organizational management in the virtual context (Hambley et al., 2007; Leonard, 2011; Maynard et al., 2012; Mukherjee et al., 2012; Zaccaro and Bader, 2003). These studies provide keys to success, tips, and critical success factors (e.g. Verburg et al., 2013) for managing global virtual teams. Virtual managers have multiple roles (Verburg et al., 2013); they act as coordinators, decision-makers, and facilitators in the organization of work. With virtual teams, the managers need to create strong structures, (e.g. Kayworth and Leidner, 2002) and facilitate team work and goal setting (e.g. Joshi and Lazarova, 2009; Verburg et al., 2013). Virtual work also potentially requires greater flexibility from the manager; an effective manager of a virtual team needs to be flexible to facilitate work across national and cultural borders and differences, in terms of scheduling team meetings, for instance.

Communication skills are obviously among the most important competences for virtual team managers (e.g. Joshi and Lazarova, 2005). Virtual team managers must be able to facilitate communication and need to have excellent communication skills, particularly regarding asynchronous communication. Leaders have to rely on infrequent and technology-mediated communication to motivate team members to achieve team goals (Fiol and O'Connor, 2005, Malhotra et al., 2007). The lack of physical proximity, fewer possibilities for face-to-face interaction with team members, and competing local demands (Fiol and O'Connor, 2005; Kiesler and Cummings, 2002) cause a need for additional communication skills. Managers should also enhance a psychologically safe communication climate by being consistently accessible, asking frequently for input from members, and encouraging team members to discuss (e.g. Gibson et al., 2014).

Moreover, managers of global virtual teams must have a global mindset (Brewster and Suutari, 2005) when managing a culturally diverse workforce; they need to be culturally sensitive and approachable (Davis and Bryant, 2003; Martins and Schilpzand, 2011; Rosen et al., 2006; Verburg et al., 2013; Zander et al., 2012). Three global characteristics, i.e. cultural intelligence, global identity and openness to cultural diversity (Lisak and Erez, 2014), have been identified as particularly critical for global managers. Furthermore, self-awareness and self-management have been emphasized as key competences for a virtual manager (Hertel et al., 2005; Lee-Kelley and Sankey, 2008; Montoya-Weiss et al., 2001). Prolonged working hours due to synchronous computer-mediated communication, email overload, and frequent travel to face-to-face meetings are everyday responsibilities for virtual managers. Virtual work practices with numerous daily virtual meetings may make work demanding and challenging, yet also exciting and rewarding. Hence it is not a surprise that the ability to handle stress and skills in time management productively have been suggested as important competences for virtual managers (e.g. Mulki et al., 2003; Nurmi, 2011; Tyran et al., 2003).

The literature on the competences of virtual managers has focused more on characteristics than skillful actions (Lönnblad and Vartiainen, 2012) and still lacks adequate data from the experiences of virtual managers. Generally, the managers of global virtual teams have to be proactive (together with their teams) in order to overcome the various challenges and expectations that potentially exist in a virtual context. These expectations range from employees' expectations regarding motivation and inspiration (Zander and Butler, 2010) to various business objectives. Self-management skills also include handling or directing one's own emotions and emotional states, as well as the sources of emotions (Mercino, 2007). It has generally been emphasized that self-management skills are among the most relevant competences for managers, and we may assume that in virtual work the importance of self-management will become even more important because managers often work alone in challenging working conditions. Hence, in the next section, I will focus on the managers themselves, on how they perceive and experience their work with global virtual teams, and on how they see the expectations, demands and requirements that they face in their daily work.

2.5 Managers' own experiences in managing global virtual teams

As described earlier in this chapter, the past decade has provided a rich body of literature on global virtual teams, including studies of virtual leadership and virtual managers. Moreover, these studies have discussed the expectations, competence needs, and roles of virtual team managers (e.g. Al-Ani et al., 2011; Kayworth and Leidner, 2002). In contrast, research on how managers themselves describe their own work and their response to these requirements has remained limited. For example, Yoo and Alavi (2004) conducted an exploratory study to examine the behaviors and roles enacted by emergent leaders in virtual team settings, gathered their data from the leaders and team members, and found that emergent leaders enacted three roles: those of initiator, scheduler, and integrator. Nevertheless, the managers themselves have been rarely heard in prior literature on virtual leadership. One reason for this may be the emphasis on quantitative work with large samples (e.g. Golden and Veiga, 2008; Joshi et al., 2009; Sarker et al., 2011), in which voices of managers may be drowned out by the analysis and statistical calculations. As suggested earlier in this study, another reason might be the interest and focus on teams (e.g. Joshi et al., 2009; Lee-Kelley and Sankey, 2008) and the challenges they face in virtual work. But what are the challenges, opportunities, advantages and disadvantages that the managers themselves speak about? How do they describe their experiences and make sense of their work with global virtual teams?

Earlier literature on managerial work in global virtual teams demonstrates that it is demanding, uncertain, and continuously changing; there is a need for qualified leaders and good leadership work (e.g. Zander et al., 2012). Managers struggle amidst various expectations and requirements; they need to meet ambitious goals and work under constant time pressure. The skills needed by virtual managers are potentially greater than those needed by managers of face-to-face teams (e.g. Martins and Schilpzand, 2011). In addition, the hopes, expectations, and needs projected on managers can be contradictory. Earlier literature has typically reflected these expectations and competence requirements as organizational needs, but managers themselves may simultaneously build expectations for their work and "good leadership." They aim at being good leaders for their employees, who want to be coached, receive feedback on a regular basis, and have challenging tasks, all of which increase the expectations, demands, and complexity faced by virtual managers.

Virtual teams are said to need managers whose skills are even greater than those who manage conventional teams. We may ponder whether some expectations put on the shoulders of managers seem to be beyond the ability of any single individual, particularly with the new generations who may have even higher expectations of managers (e.g. Willyerd, 2015). These considerations refer to interest in managers' emotional intelligence, for example in emotional skills and how well they are able to understand the emotions of their people. Moreover, we may ask what we know about managers' own emotions. According to earlier studies, virtual work includes unique stressors (Glazer et al., 2012; Nurmi, 2011) and can impact the work-life balance of virtual workers. The uncertainty, ambiguity, and work overload may also cause frustration and exhaustion for both employees and managers (e.g. Eligio et al., 2012; Mayer et al., 2008; Pitts et al., 2012). At the same time, virtual work certainly offers excitement, joy, satisfaction, richness of diversity, and unlimited development opportunities for these global managers.

In this chapter, I have described the findings in earlier literature on the management of global virtual teams. I have defined the core concepts, presented various opportunities and challenges in virtual work identified by the earlier research, and reviewed virtual leadership in existing research. In addition, I have aimed at focusing on the "individual level," i.e. the tasks, competences, and skills of managers, to determine how existing literature describes managerial work from the perspective of success factors and the expectations of managers. Finally, I have studied what earlier literature says about the experiences and perceptions described by the managers themselves.

3. Research design, data and methods

3.1 The ontological and epistemological commitments of the study

This research project aims at understanding how managers talk about their work in global virtual teams and how they make sense of their everyday life. The approach of my study is based on the ontological assumption that reality is understood as subjective, meaning that perceptions and experiences may vary for each person and change over time and context (Eriksson and Kovalainen, 2008). Hence, the philosophical background of my study builds on an interpretive approach that is concerned with contextualized descriptions, understandings, and interpretations of the meanings of social reality (Stake, 1995) and aims at finding out how people make sense and give meanings to phenomena. The background of interpretivism is in hermeneutics and phenomenology, which generally deal with subjective and shared meanings. The field of virtual work research has been dominated by positivist epistemology and although positivist studies have their own value in the research field, an interpretive approach is important and useful for understand the work of managers in global virtual teams.

The interpretive research approach typically presents multiple voices of actors and interpretations of social behavior and actions, in this study particularly what managers do and how they feel, think, and behave in their daily work. Furthermore, interpretive methods allow thick descriptions of organizational reality and rich representations of actors' lived experience. In this study, the everyday work of actors, i.e. managers, is investigated by drawing attention to how managers make sense of their work and how it reflects their interpretation of information and of facts that they have experienced personally. Unlike positivistic epistemology, which insists on the unity of the social sciences, the interpretive approach emphasizes the uniqueness of the social sciences, in which subjects ascribe meaning to their own behavior (e.g. Denzin and Lincoln, 2011). While positivist research aims to search objectively for generalities and correlations, the interpretive research process and orientation aims at a subjective effort to understand the phenomenon (Welch et al., 2011). My aim is not to formulate a generalizable theory of how the work of managers is constructed in global virtual teams, but to understand and interpret their work as a subjective and continuously rebuilt and maintained phenomenon.

Moreover, this research is founded on a social constructivist worldview, considering organizational reality and knowledge as socially constructed phenomena. Social constructivism is seen as a dominant form of current interpretive research and interpretivism is said to start from the position that our knowledge of reality, including the domain of human action, is a social construction created by human actors (in Walsham, 2006). Constructivism seeks to understand how organizations are constructed and constituted by the subjective meanings of individuals and intersubjective processes (e.g. Alvesson and Sköldberg, 2009). Although there are many forms of interpretivism and constructionism, they are also interested in how people interpret and understand social events and settings (e.g. Denzin and Lincoln, 2011; Holstein and Gubrium, 2011). Constructivists contend that truth is relative and dependent on perspective. In my study, I have interviewed many managers for the data and sought to discover how they form their own reality from their perspectives. Although each informant constructed reality differently and individually, we built a common reality together. In other words, social constructivism assumes that understanding, significance, and meanings are developed not separately within the individual, but through interaction with others (Leeds-Hurwitz, 2009).

One of the advantages of the interpretative and constructivist approaches is close cooperation between the researcher and the research participants. Close cooperation in frequent, lengthy, and in-depth meetings and interactions between the researcher and the research participant, allows them to learn to know and understand each other better. In my study, this closeness was relevant and enabled the research participants to tell their stories openly and describe their various views of reality (cf. Baxter and Jack, 2008). The interpretative and constructivist approach seems appropriate to my research goal and the research questions; rather than attempting to reach an ultimate stable truth about the work of managers in global virtual teams, my study aims at understanding how their work is interpreted by the actors, i.e. the managers themselves. Figure 2, which has been adapted from Hugh Willmott's (2015) description of ontological inquiry in management studies, presents the interplay between ontology, epistemology, methodology, and privileged values and ethics in my study. In his framework, Wilmott presents three different ontological perspectives on knowledge, i.e. empirism / naive realism, interpretivism / social constructivism, and critical approaches. The ontology in my study is based on subjective reality. The epistemological commitments are interpretivism and social constructivism (according to which the world is made of meanings and meanings are created through social processes).

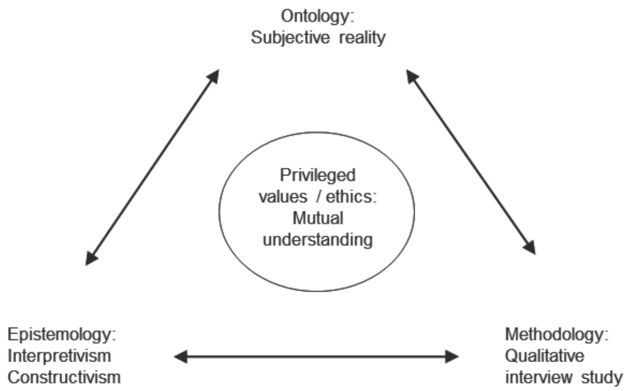

Figure 2. Ontological and epistemological commitments of this study (adapted from Willmott, 2015)

3.2 Methodological foundations of the research and the research strategy: a qualitative interview study

The choice of method is determined not only by the ontological and epistemological stance of the researcher, but by the purpose and objective of the research project, the nature of the research problem, and the theoretical frameworks that inform the study (Zalan and Lewis, 2004). The aim of my research, which is to understand the work of managers in global virtual teams, called for qualitative interpretive methods. Qualitative research provides tools for researchers to study complex phenomena within their context. According to Denzin and Lincoln (2011, 3), qualitative research "involves an interpretive, naturalistic approach to the world which means that qualitative researchers study things in their natural settings, attempting to make sense of, or to interpret, phenomena in terms of the meaning people bring to them". Research done from the interpretivist philosophical position (see figure 3, based on Willmott, 2015) does not predefine dependent and independent variables but focuses on the complexity of human sense-making and on many possible interpretations of the same data, all of which are potentially meaningful (Eriksson and Kovalainen, 2008). One reason for adopting a qualitative method for my study was the complexity of managers' work, which was especially relevant in the chosen empirical context – the managers of multinational company with virtual teams. For the purposes of my study, which aims to provide a rich description of the phenomenon studied, field work was important, and quantitative methodologies did not enable adequate opportunities for receiving the depth of data that I needed. Although the amount of qualitative research on global virtual teams has increased slightly in recent years, quantitative research still dominates the field and qualitative research has been frequently called for by many researchers (e.g. Gilson et al., 2015). For these reasons and the potential limitations of quantitative methods, I will use a qualitative research strategy in my study.

In this study, the data were generated primarily in the interviews. Observation and company documents were used as additional data sources. As primacy is given to the interview data, not the observations, this study is not ethnographic. Qualitative interviews are used for studying phenomena in their social context and they are typically unstructured, informal, and open in nature, and useful for exploring a topic intensively from the participants' point of view (e.g. Eriksson and Kovalainen, 2008). According to Alvesson (2003, 13), qualitative interviews are typically "relatively loosely structured and open to what the interviewee feels is relevant and important to talk about, given the interest of the research project". When the need is to explore complex, often personal matters, it is often insufficient to use standard questions that are easily understood and given an ordinary meaning. Instead, Alvesson (2003) prefers a careful and ongoing reflexive approach to interviews, offering stands for conscious and consistent efforts to view the subject matter from different angles, thus avoiding a single favored angle. Hence, in qualitative interviews reflexivity stimulates interplay between producing interpretations and challenging them (Alvesson, 2003). Similarly, the goal of a qualitative interview study is to see the research topic from the perspective of the interviewee and to understand how and why they have come to have this particular perspective (King, 2011). As my aim was to understand the point of view of the research participants, and take a relational approach to interviewing, these aspects made the method particularly appropriate for my study. According to Alvesson (2003), interviews must be considered complex social phenomena, meaning a thicker understanding than the technique for getting data, and this is precisely what I have tried to do in my interviews and in reflections and interpretations regarding them.

In sum, qualitative studies, and particularly qualitative interviews, are often challenging research methods that involve ambiguous situations calling for intensive sense-making on behalf of the interviewee, reflexivity, and concentration on the interview situation, the interviewee, the interviewer, and the accounts produced (e.g. Alvesson, 2003; Daniels and Cannice, 2004; Eriksson and Kovalainen, 2008). Interpretative, constructivist studies rely to a great extent on what the participants talk about, and this talk and intensive interpretation should be understood. When conducting an interpretivist interview study in the spirit of social constructivism, a reflective approach is an important part of the research philosophy. In an interpretive interview study, researchers typically ponder their own identity and its impact on data collection and analysis and see themselves as subjective research instruments (Piekkari and Welch, 2011). I will next describe the reasons for choosing the research topic for my dissertation, and reflect my relationship on the empirical context and the research participants.

3.3 My choice for the research topic

During my long career in human resource management, I have had an opportunity to work for several global companies. In these companies, one of my primary responsibilities has been leadership development, which has meant countless discussions with managers and their daily challenges and development needs over the years. In the early 2000s when I left IBM and started to work for Sun Microsystems (acquired by Oracle Corporation in 2010), Sun was among the first companies to promote mobile and virtual work, and at the end of 1990s had already launched virtual work applications such as the open office, virtual workplace and "the anywhere office". Their concepts "network is the computer" and "open work practice" (see e.g. Verbeke et al., 2008) enabled flexible work and eWork (Vartiainen et al., 2007) and helped teleworking and virtual work become reality. For instance, the employees at the Espoo office (Finland) at the beginning of the 2000s were encouraged and advised to arrange their work to minimize office time and maximize time with customers or at home, working remotely and virtually. When working in the office, we chose our working seats every morning from the "booking center" next to the elevator which showed the available seats in the office. With several tangible benefits, such as savings on real estate and travel, improved employee performance and retention, organizational attraction, and corporate sustainability (Vartiainen et al., 2007), the same practices were soon introduced in other global and local companies in different variations, and virtual work quickly gained a foothold in global companies.

When working with distributed and virtual workers and developing leadership training for managers, I became particularly interested in the work of managers in their "new" virtual environment. In this environment employees worked remotely or virtually from different locations, and leadership work gradually became increasingly virtual, i.e. at least some team members were distributed in different cities or countries. In our daily discussions, the managers shared their experiences and problems with me, asked for help and support, and often talked about the challenges they faced when working virtually with their employees, with people they could not "meet, see, or feel". The change towards new working habits and "the new world of work" was accelerating fast as globalization continued and companies wanted to be closer to their customers with highly competent teams. The organizational restructuring resulted in a growing increase in virtual workers and "teleworking". Virtual work soon became commonplace, first in global companies and later in domestic organizations as well. For 20 years, in almost all of my positions, my own manager was sitting in another country and I received direct reports from others who were working virtually, i.e. a location or country other than mine. During these years I experienced the challenges and joys of a virtual manager from many perspectives: how can I get closer contact with my German employee, how can I motivate my Dutch employee to push this global project, what are my employees doing when they don't reply to me, where are my employees when I need them…? At the same time, in annual meetings, for instance, meeting my global team members from 13 countries, facing cultural diversity and richness, and sharing our knowledge and practices across all borders provided me with my most enjoyable work experiences.

During my career and different jobs in global virtual teams, I became particularly interested in the manager's job in virtual teams. In addition, I personally found working in a global environment fascinating and challenging. For us, virtual team members and global workers, the global work was mostly rich and diverse, although practical issues such as time differences or remoteness from our own manager or colleagues sometimes complicated team work. For the managers of these teams, virtuality brought several benefits, such as the ability to build a team of the best talents and local professionals. However, virtual work simultaneously created challenges, as the managers had to learn to lead people remotely. In my work, I soon learned to collaborate and share knowledge with my European colleagues, but as a virtual manager, I often felt helpless.

It was sometimes difficult to listen to, comfort, and help my employees in different countries virtually. Or when I needed to make sure that they understood the instructions and were able to work according to the guidelines, I could rely only on written text (in emails) or verbal cues in our calls or teleconferences. Several misunderstandings took place, for example, when I wrote an email topic in capital letters, to ask for attention, the employee who had received the message asked why I was shouting. Furthermore, it was not easy to replace physical presence with virtual presence.

With no less interest or no intention of underestimating the challenges of virtual employees, I decided to focus in my study on the work of managers. After all, managers play a key role in building and managing virtual work in organizations, both in structuring team tasks and supporting socio-emotional team processes (cf. Al-Ani et al., 2011). Another reason for choosing the perspective of managers was that current research on virtual work has focused on virtual team members (e.g. collaboration between virtual team members, trust between virtual team members, the performance of virtual team members) and the experiences of team members in virtual environments, but research on the work of managers has remained rare (see e.g. Gilson et al., 2015). When the managers I worked with for several years repeatedly told me stories about the various incidents, occasions, and challenges they faced while building, leading, and developing their virtual teams, I received strong and continuous encouragement to study this topic in greater depth. Last but not least, in the early phase of my project when I was planning the research topic, I had a valuable and unique opportunity to discuss the topic with very senior scholars, such as Gary Yukl (New York State University) and Sirkka Jarvenpaa (Texas University), among others, who strongly encouraged me to study this topic. Simultaneously, the discussion on the new world of work (e.g. Annunzio, 2001; Avolio et al., 2014; Gratton, 2011) received plenty of attention in newspapers and business magazines.

The first steps in this research project were taken when I planned development programs for virtual managers in one of the global companies I worked for, wrote the notes and observations from my discussions with managers, and on behalf of my company, participated in research projects with the local university (Helsinki University of Technology, nowadays part of Aalto University) and with the Finnish research organization Tekes. These projects studied various areas of virtual work, for instance the cost savings, environmental impact, work-life balance of virtual workers and the competence needs of virtual managers. According to the results, virtual work brought several benefits, for example decreased travel costs and enhanced work-life balance and satisfaction for employees. In addition, the global business consultants and training organizations with whom I worked continuously and systematically encouraged me to study this topic, in which practice was clearly developing faster than research. Finally, a larger research project became possible when I decided to step aside from daily business work and focus on studying and research.

3.4 Selection of the research site

This research project was an interview study of the work of managers in global virtual teams, and in the next section I will describe the selection of the research site for the study. The empirical research selected for this study was carried out in a European multinational corporation. In the very beginning of my research project, I had two companies in focus, and in the first phases of my project I conducted six pilot interviews in these two companies. In the pilot interviews, I scanned potentially interesting topics concerning virtual work and attempted to obtain confirmation on whether my research topic was interesting and relevant enough and how the informants saw the importance of the study. Finally, I decided to focus on one company only for the following reasons. First, with the aim of producing an in-depth understanding of the phenomenon, I chose the company which I was working in and which I knew very well, and was therefore able to use my insider role. Secondly, the aim and the research question were not to analyze the differences between the organizations or compare them. Thirdly, I wanted to generate data from informants who worked in the global virtual organization with “fully” virtual employees. I discovered that virtual work in the other pilot company was only partial, i.e. employees were mainly co-located with their managers and only occasionally in virtual environment.

The company in which the data were generated operates in the technology sector. It can be classified as a highly technology- and knowledge-intensive company and went through major strategic changes in the first decades of 2000 in response to the impact of globalization. While the company is headquartered in Europe, it now has a global network of subsidiaries and branches in more than 60 countries with 800 locations and 70,000 employees. The company operates under a matrix structure with seven geographical areas. Today, many if not most managers are based in their home countries, but work at a distance from their employees, who are located in their home countries. These teams typically consist of more than 10 members, hailing from China, India, the United States, Italy, Finland, France, Mexico, and Germany. China is the fastest growing market of the company and one of the largest countries in terms of employment, thus most managers in my study had Chinese employees in their teams.

The empirical work was conducted from 2010 through 2015, and I was working on the research site (for the company) in 2008-2012. After my employment in the company, I worked on my dissertation in 2012-2016. During the empirical study, virtual communication increased rapidly in the company and virtual teams became commonplace for almost all managers. As the organization grew, many managers – who lacked earlier experience of virtual leadership – obtained new team members from distant locations. Global growth was one of the major strategies of the company. Although the company had built up its global position in earlier decades, growth accelerated in the 2000s. This meant new acquisitions, subsidiaries, production sites, and offices in many parts of the world. At the same time, the population of the company grew quickly and people needed to communicate virtually because face-to-face meetings were no longer possible. According to a survey (n= 520 virtual meeting tool users) made in 2009 in cooperation with an external research organization, 60% (n= 333) of virtual tool users were "heavy users" who used virtual meeting tools daily or many times a week, worked in several simultaneous projects and collaborated with a large number of distant coworkers, and worked more often after business hours and during weekends. According to the findings of this survey, virtual collaboration was said to inspire employees and increase their work engagement, yet working after business hours and during weekends caused stress for them (confidential research report). All in all, the rise of virtual collaboration was obvious and fast in this company, and thus provided an interesting research site for examining virtual work and particularly what managers said about it.

The interview data were generated in 2012-2015, when I worked on my dissertation as a researched student. Before the data generation period regarding the interviews, I worked in the organization for four years. I was personally involved in virtual work in various ways: as an employee, as a manager, and in my role in coaching managers. In my job, I participated in numerous virtual meetings daily, weekly, and monthly. I facilitated many virtual meetings, but also listened and observed them: I was "living the life" of the research participants of this study. According to Piekkari and Welch (2006), calls have been made for qualitative researchers to show greater reflexivity or sensitivity towards the ways in which the researcher is part of the social world that is studied, and I found this approach useful for my study.

Piekkari and Welch (2006) emphasize the role and position of the researcher in the choice of methods and the overall process of generating knowledge. My own background and personal orientations served as the starting point for my study and during the long process of data collection I therefore gained insight into the case and rich data.

While conducting the interviews, the role of the researcher's and her relationship to the organization may serve research purposes in different ways. I often found myself pondering my role. Evered and Louis (1981) identified two approaches of inquiry in research, i.e. inquiry from outside and inquiry from inside. According to them, knowledge and understanding of an organizational situation can be acquired in two ways: studying from the outside and studying from the inside, which means becoming a part of the organization. Inquiry from the outside is characterized by the researcher's detachment from the organizational setting, while inquiry from the inside means that the researcher can best come to know the reality of an organization by being there and becoming part of the phenomena of study. Fundamental to inquiry from the inside is "the belief that knowledge comes from human experience, which is inherently continuous and non-logical" (Evered and Louis, 1981, 389). In my study, knowledge came primarily from the talk of managers, and my role as a researcher was in building a common understanding of the work of managers together with the informants (cf. Welch et al., 2011). I lived the life of my research participants, working closely with them. Furthermore, while the aim of inquiry from the outside is universality and generalizability, in inquiry from the inside, data are interpreted and contextually embedded. The fieldwork is likely to be more intimate, open-ended and holistic, but regardless of the type of inquiry, the issues of subjectivity, interpretation, meaning, and relationships will always matter, although to a different extent (Michailova et al., 2014).

Walsham (1995 and 2006) has explored interpretative research and makes a distinction between an outside researcher and an involved researcher (cf. inquiry from inside by Evered and Louis, 1981). He sees the former as a researcher carrying out a study mainly through formal interviews, with no direct involvement in action. The latter is closer to the participant observer, who is more engaged and more closely involved; this enables observation or participation in action, rather than merely accessing opinions as is the case in an interview-only study. However, these roles of researcher and "participant" are inherently intertwined and laden with different kinds of thoughts and even emotions concerning the empirical focus of this research, i.e. the global virtual teams. I found my role as an involved researcher. One of the motivations for selecting this company was that the phenomenon of managing global virtual teams was particularly visible in my case company. This provided an opportunity to collect rich data. According to Eriksson and Kovalainen (2008), doing research with an organization and individuals that you already know also improves prospects for developing detailed contextual knowledge. Knowing the organization and its employees also provided me with easy access to the data during the course of the research it was easy to continuously discuss and check the findings with the informants. In addition, in the later phases of my study, when I was no longer employed at the company, I felt that I was not alone with my interpretations, because I was always able to share them with my informants or to check my thoughts and interpretations with a quick call or meeting.

In addition to a number of benefits, there are naturally some disadvantages of close involvement. In my case, the greatest risk was that I became socialized to the views of the informants and lost the benefit of a fresh outlook on the situation (see Walsham, 2006). Further, although subjectivity is seen as a benefit and a resource in interpretive research, I needed to balance closeness and critical distance. I have been aware of these challenges and roles and discussed them with my supervisors and with several of my informants. In sum, my position in the focal organization enabled me to make observations from inside and gave access to internal empirical materials and unofficial discussions which I would not have otherwise had. The impact of my own history as a former employee and the close relationship to the case company is discussed in detail in the assessment of the quality of the research (chapter 3.7.).

3.5 Data sources

My research adventure began with a search for rich data to understand my research field better. According to Charmaz (2006), rich data are detailed, focused, and full, and reveal the views, feelings, intentions, and actions of participants. When searching for a rich and illuminated body of empirical data and thick descriptions of managerial work in global virtual teams, I used multiple data sources, but principally interviews.

Chronologically, observation and documented data were used in the earlier phases of the research project, and the interviews, which formed the majority of the data, were made during the last three years of the project. These data sources supported each other in most cases; the interview data triangulated in relation to the documents and observation. Some were conflicting; for example, when I had observed their work, I was not able to see their entire workload or understand the frustrations and emotions about which they talked in the interviews. Figure 3 describes the data sources and the time when the data were generated. The figure also shows the time period (2012-2016) when I was working on my dissertation as a research student.

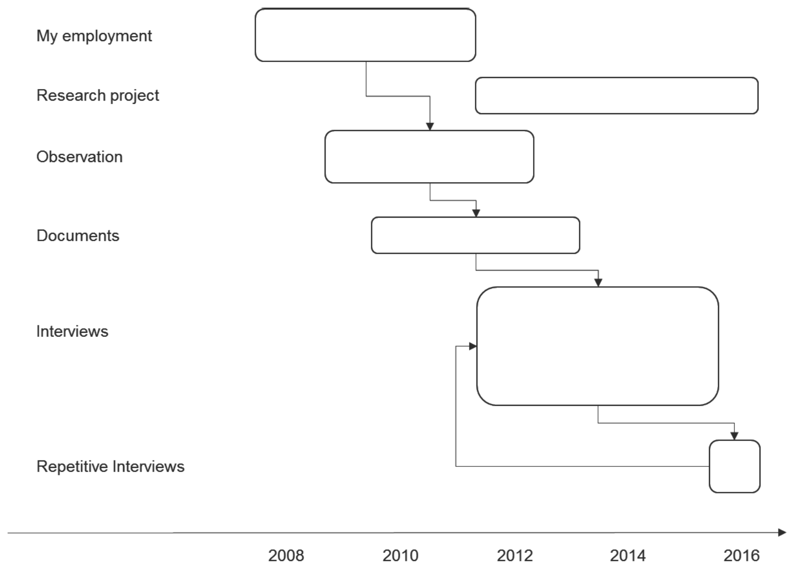

Figure 3. Data sources and their timing during the research process

3.5.1 Personal interviews

The total number of interviews was 42. After six pilot interviews, the data were generated from a total of 36 interviews. The first interviews were semi-structured - there were prepared, structured questions and topics (see Appendix 1). But already in the early phases of data collection, I wanted to give the informants an opportunity to describe their work spontaneously, broadly, and freely. At the same time, I tried to maintain my role as listener, intervening with a few guiding questions, and remain open to what was specifically interesting and important for them. In addition, to avoid overly structured interviews, I adopted the approach of Charmaz (2006, 25): "intensive interviews permit an in-depth exploration of a particular topic with a person who has had the relevant experiences". Intensive interviews also facilitate eliciting each participant's interpretation of his or her experience. The interviewer is there to listen, to observe with sensitivity, and to encourage the interviewee to respond (Charmaz, 2006). By creating open-ended, non-judgmental questions, I tried to allow unanticipated statements and stories to emerge. Although the interviews were conversational, I wanted to show interest and to know more, and my comments and questions were meant to help the informants articulate their intentions and meanings. This led to discussions in which the informants actively shaped the course of the interview rather than passively responded to pre-set questions. This method gave me the opportunity to add important insights as they arose during the conversation, which is one of the advantages of semi-structured interviews (see Myers, 2013). In the beginning of the data collection period, my role was more active and in the later interviews, I wanted to let the managers speak openly to find out what perspectives they emphasized. In the final round, I also conducted additional interviews with some research participants (altogether five people) to improve my understanding. In these interviews I was able to return to the research topics which had emerged in the data. These five additional interviews were conducted with the research participants, from whom I wanted to ask complementary or new questions in order to get a better understanding of the topics they spoke about in the earlier interviews. In addition, when new themes emerged during data collection, I wanted to return to those informants, whom I had talked to in the early stages of my research process. These supplementary interviews are marked in Table 2 with number 2 (e.g., Sarah 2, Lauren 2 etc.).

I started the interviews in summer 2012 and continued until fall 2015. All interviews except two (which were conducted in Dubai and Dusseldorf) took place in Finland, where I was personally located and worked on my research project. They were usually held in a company meeting room or in an informant's private office, and once during lunch in a company restaurant. Three interviews were done in an external restaurant. The interviewees were managers of the company and I refer to them as research participants or informants. Although I was studying virtual work and virtual collaboration, I wanted to conduct the interviews face-to-face. I wanted to assure confidentiality, reliable audio-recording, and sufficient time (I did not want to limit the length of the interviews, as is typically the case in virtual meetings). I also wanted to use non-verbal cues to enable in-depth and qualitative discussions. This enabled me to get "beneath the surface" and I believe I was able to gain my informants' trust and obtain solid data from them. Table 2 provides a list of the interviews conducted in this study. The Table has been divided according to the purpose of the interviews (pilot interviews and actual interviews) and the managerial level. The interviews in each Table section have been presented in chronological order, i.e. the interviews conducted first come first.

Table 2. Demographics of the research participants

Pilot interviews (6 persons, 6 interviews)

Name (pseudonym)	**Title and function**	**Tenure**	**Age group**	**Gender**	**Time of the interview**	**Purpose of the interview**
Oscar	Managing director	5 years	41-50	Male	Feb 10, 2012	Pilot interview to understand the research area
Max	Director, developer	4 years	41-50	Male	Sept, 12, 2012	Pilot interview to understand the research area
Henry	Director, sales	2 years	41-50	Male	Sept 26, 2012	Pilot interview to understand the research area and consider the first topics
Leo	Partner and programs lead	8 years	41-50	Male	Sept 26, 2012	Pilot interview to understand the research area and consider the first topics
Sophie	Marketing mgr	15 years	31-40	Female	Sept 26, 2012	Pilot interview to understand the research area and consider ask about the first topics
Felix	Director, services	11 years	41-50	Male	Sept 26, 2012	Pilot interview to understand the research area and consider and ask about the first topics

Top management (10 persons, 13 interviews)

Name (pseudonym)	**Title and function**	**Tenure**	**Age group**	**gender**	**Time of the interview**	**Purpose of the interview**
Ashley	Vice president, service business	4 years	41-50	Female	June 17, 2012	Scan the area of virtual leadership
Tyler	Senior Vice President, production	10 years	51-60	Male	Oct 17, 2012	Managerial work in GVTs
James	Vice president, Technology	11 years	41-50	Male	April 29, 2013	Managerial work in GVTs
Ryan	Senior vice president, production	12 years	41-50	Male	June 8, 2013	Managerial work in GVTs
Sarah	Executive vice president	10 years	51-60	Female	June 19, 2013	Managerial work in GVTs
Robert	Service business	9 years	41-50	Male	December 9, 2013	Managerial work in GVTs, more focused research topics
Kevin	Executive vice president	30 years	51-60	Male	December 9, 2013	Managerial work in GVTs, more focused research topics
Megan	Senior vice president	4 years	41-50	Female	December 10, 2013	Managerial work in GVTs, more focused research topics
Brian	Senior vice president	27 years	51-60	Male	March 27, 2014	Managerial work in GVTs, more focused research topics
Lauren	Executive vice president	6 years	41-50	Female	Sept 10, 2014	Managerial work in GVTs, more focused research topics
Sarah 2	Executive vice president	10 years	51-60	Female	September 9, 2014	Managerial work in GVTs, specified topics (2nd int)
Lauren 2	Executive vice president	6 years	41-50	Female	November 15, 2014	Managerial work in GVTs, specified topics (2nd int)
Sarah 3	Executive	10 years	51-60	Female	September 1,	Managerial work in

	vice president				2015	GVTs, specified topics (3rd int)

Middle management (16 people, 19 interviews)

Name (pseudonym)	**Title and function**	**Tenure**	**Age group**	**Gender**	**Time of the interview**	**Purpose of the interview**
Richard	Head of HR	30 years	51-60	Male	April 2, 2013	Managerial work in GVTs
Andrew	Head of project engineering	35 years	51-60	Male	April 24, 2013	Managerial work in GVTs
Emily	Head of field training	8 years	41-50	Female	April 24, 2013	Managerial work in GVTs
David	Head of project management	5 years	41-50	Male	April 24, 2013	Managerial work in GVTs
Amanda	Head of talent management	6 years	41-50	Female	September 2, 2013	Managerial work in GVTs
Luke	Head of process solution	7 years	41-50	Male	November 11, 2013	Managerial work in GVTs
William	Head of global installation	25 years	51-60	Male	November 11, 2013	Managerial work in GVTs
Rachel	Director, service business	8 years	41-50	Female	February 18, 2014	Managing global matrix teams
Amber	Director HR	14 years	41-50	Female	March 4, 2014	Managerial work in GVTs
Samuel	Director, supply service	10 years	31-40	Male	March 28, 2014	Managerial work in GVTs
Jason	Head of service business area	15 years	41-50	Male	March 27, 2014	Focused interviews on tools
Amanda 2	Head of talent management	6 years	41-50	Female	June 30, 2014	Managerial work in GVTs, specified topics
Dustin	Global process owner	5 years	51-60	Male	September 10, 2014	Managerial work in GVTs
Alex	Global delivery process owner	3 years	41-50	Male	September 10, 2014	Managerial work in GVTs
Amber 2	Director HR	14 years	41-50	Female	December 9, 2014	Managerial work in GVTs, specified topics
Lisa	Director, service development	33 years	51-60	Female	June 18, 2015	Managerial work in GVTs
Mary	Head of CIO office	10 years	41-50	Female	September 25, 2015	Managerial work in GVTs
Amber 3	Director HR	14 years	41-50	Female	December 8, 2015	Managerial work in GVTs
Oliver	Program director	16 years	51-60	Male	December 17, 2015	Managerial work in GVTs

Team leaders (3 persons, 4 interviews)

Name (pseudonym)	**Title and function**	**Tenure**	**Age group**	**Gender**	**Time of the interview**	**Purpose of the interview**
Brandon	Team leader, material management	23 years	31-40	Male	Nov 27, 2012	Managerial work in GVTs
Daniel	Team leader, product supply	18 years	31-40	Male	Nov 27, 2012	Managerial work in GVTs
Daniel 2	Team leader, Product supply	18 years	31-40	Male	March 27, 2014	Managerial work in GVTs, specified topics
Anna	HR specialist	21 years	41-50	Female	June 2, 2014	Virtual work

In choosing the research participants for my study, I applied purposeful sampling (Patton, 2002) to select managers. To obtain a rich view of the topic, my aim was to have a large group of informants. I sought to have enough diversity in the research participants to secure many different perspectives. I contacted the case company's department managers and the HR managers of different business departments and selected most of the informants with their help. The HR managers had a good overall picture of the organizations and teams and access to all company organization charts and employee data, which made their role and information important for me. They knew which managers had virtual teams, and with the extensive employee data, they were able to look for diversity in the managers' gender, tenure, nationality, position, organization, and business area, which were criteria for selection. I was also able to use my own knowledge, contacts and network, which I had built during the years I worked for the case company, in finding relevant participants. In addition to diversity, I used the following criteria for the selection of research participants: first, the participants needed to have global teams in which most employees worked virtually in countries other from those of their manager, and second, the participants were expected to communicate with their employees primarily through virtual technology such as emails, Lync and conference calls.

The research participants were vice presidents, country managers, subsidiary managers, department managers, R&D managers, and team leaders (see Table 2). I chose the participants among top management, middle management, and team leaders. Top management comprised the positions such as vice president and senior vice president. Middle management positions were typically directors, heads of operations and managers who reported to top management and had team leaders as their direct reports. The majority (60%) of the informants were on the middle manager level, because they had the "most virtual" teams, i.e. most of the team members were virtual employees who worked in a different country from their manager (see Table 2). Team leaders reported to middle management and had typically teams of specialists (not in managerial roles). The focus was not, however, to compare the managers on different levels or with different tenures, but to obtain versatile data about the work of a virtual manager. Although the different background factors were not the focus of this study, they certainly influenced how the informants made sense of their work. For example, when younger team leaders talked about their work, they reflected it against much less experience than the older managers. During their career as virtual managers, the more experienced managers had pondered longer about their work and how to cope with it, and tested several ways to handle and improve daily practices. In addition, their organizational position provided them with more power, flexibility and assistance. Typically the more senior participants said that they were used to virtual work and two research participants said it hardly made any difference whether they worked with co-located or virtual employees, while most of my informants focused on the differences, challenges, and difficulties of working in a virtual environment. According to most research participants, virtual work was most challenging for the middle managers and the team leaders, who faced expectations and demands from many directions in the organization.

Each manager of my study had two to 15 employees reporting directly to them. The managers were each responsible for one global virtual team. In addition, most managers had matrix employees in other organizations who reported them with “dotted-line”. The majority (62.1%) of the interviewees were Finnish males who were physically based in Finland. Eleven of the managers interviewed (37.9%) were women (see Table 2). Two research participants were English-speaking managers and another had lived in Finland for a decade with his family. There was a British citizen who travelled and worked in Finland often, but had 14 employees located around the world. The age of the research participants varied from 31 to 62 years and work experience in the company from 4 to 35 years (see Table 2). All names are pseudonyms to protect the anonymity and to honor the confidentiality agreements with my informants. The interviews ranged from 70 to 120 minutes, and excluding two interviews made in English (with the abovementioned British natives), they were conducted in Finnish.

The majority of the informants (about 60%) had an educational background in engineering. Although the focus of my study is not to study the leadership of engineers or people of any other educational background or to examine leadership in different socio-cultural backgrounds, it was nevertheless important to make certain that the majority of my informants were Finnish engineers. Although there is a great risk of falling into generalizations or stereotypes, several studies suggest that Finnish engineers have certain leadership characteristics: they are said to be straight-forward, task-oriented, hard-working, determined, and focus on technical competences (e.g. Möttönen, 2012; Piispa, 2012), respect other people, and lead by example (Tienari and Vaara, 2004). Discussion on leadership development has suggested increasing the focus on leadership skills, social skills or emotional intelligence in engineering studies (e.g. Farr and Brazil, 2009; Kumar and Hsiao, 2007; Lappalainen, 2012). However, as earlier said, generalizations on any leadership backgrounds are useless and dangerous, as all leaders with various or the same educational backgrounds are different as managers.

During the data collection, I was concerned whether it would be difficult to find interview time from these extremely busy, global managers who were constantly on the move. I was surprised and glad to realize how fast and easily they accepted my invitations. In addition, the discussions always took longer than scheduled and led to new perspectives on the topic. Probably these busy managers seldom have a chance to relate their experiences and feelings; it was truly interesting to see how passionately they analyzed their work and thoughts. In addition, they were opened to reveal their feelings and emotions, which may sometimes be difficult in research interviews. I found these discussions fruitful, enjoyable, and rewarding for me as a researcher; they were perhaps the best part of the entire study process. However, I did my best to maintain a balance between the critical distance from and closeness to my research participants. Moreover, as the philosophical background of this study is based on the foundation that building knowledge is social and common, this also applied to the relationship and discussions between me and the informants (see Hoskins, 2011). I listened to how the managers made sense of managerial work in global virtual teams and then interpreted the interview data (see e.g. Barley and Kunda, 2001).

My interviewing style changed during the data generation process. In the first interviews I was more structured and had more questions for the informants. I had pre-planned guidelines for the topics that I wanted to be discussed. I soon realized that this was not necessary and that the structure even disturbed the interviews. It made the discussions mechanical and I learned that I needed to react better to what my informants told me, and thus encourage the discussion. The further the research project proceeded, the broader our discussions became. I learned that I needed to minimize my own talking and let the informants speak as much as possible. In the end, I did not follow the interview structure literally, but proceeded according to what discussion topic was relevant at the time (see Alvesson, 2011, 52-53). In our conversations, interviews, and dialogs, we worked out together what managerial work was in global virtual teams. Moreover, I realized that I needed to be more receptive to the message of my informants and let them tell about their worlds in their own words. This method is called storytelling by Mantere and Vaara (2008); it is an interview method that allows the informants to speak as openly as possibly. In my study, I tried to approach the phenomenon without prior expectations and remained an open listener. During the long process of collecting the data, the interviews moved continuously towards more open discussions. During the data collection, I wrote informal reflections after the interviews and observations. In addition to informal reflections, I also analyzed the interview data as I collected them, adapting methods and naturalistic inquiry (Lincoln and Guba, 1985).

In addition to broader discussions, the number of interviews became larger than initially planned because of “snowball sampling”. Snowball sampling (e.g. Morgan, 2008) is an analogy which reflects the increasing size of a snowball as it rolls downhill. The pool of initial participants grew and other participants who met the eligibility criteria and could potentially contribute to my study were added. At the end of many discussions, the research participants often suggested or recommended potential interviewees and said to me: “hey, you should talk with Tom, he knows even better how this works and he has many virtual employees in different countries”. In many cases they contacted these people directly at the end of our meeting or made a call from their office and asked them to contact me, which was very helpful for me as a researcher. Since the objective was to have relevant and adequate examples of virtual managers in a global virtual environment, I continued adding more interviews until I felt I had obtained enough empirical data. I wanted to have reconfirmation for the conclusions I had made, to be sure that I had not interpreted what the managers had said wrongly. Therefore, in a rather late phase of my research, I arranged five additional interviews in which I allowed the informants to speak openly, but also wanted to do constant checking for alternative explanations. These five additional interviews were done with the research participants, from whom I wanted to ask complementary or new questions to get a better picture of the topics they spoke about in the earlier interviews. In addition, when new themes emerged in the interviews, I wanted to discuss them also from those informants, with whom I had spoken in the earlier phase of the research process. These supplementary interviews are marked in the table 2 as a number (Sarah 2, Lauren 2 etc.). As these additional interviews confirmed my conclusions, I was convinced that I had obtained enough data to answer my research questions. The final interviews did not reveal any new relevant findings (cf. Saunders et al., 2014).

3.5.2 Observational data

In addition to the interviews, I observed the managers and their interactions at work while employed by the company, particularly during 2010-2012 when I was already planning my research project. During those years, I engaged deeply in the managers’ daily business, learned about their work, and wrote field notes about my colleagues’ practices and interactions with their employees through various communication channels, including conference calls, email, videoconferencing, chats, Lync, Skype, live meetings, and face-to-face meetings. I regularly observed them using the above-mentioned tools, and they also talked about it frequently. I also saved some “clippings” from the social collaboration platforms used by the managers in their work to get a better idea of the process and content of their discussions. For instance, one of these documents was an excerpt (several contacts and pages) from a social platform used daily by a manager to keep in contact with his employees and to discuss their work load, location, and next plans. In addition to general observation, I introduced - as part of my work - competence development programs for global managers such as general leadership training and virtual team training, and facilitated leadership development programs in several countries. In those events, I made observations and notes and saved lots of material from the training sessions to be used as background information in my study. Table 3 provides an overview of the various types of observations and notes I made during various situations while I worked for the company.

Table 3. Summary of different types of observations

Nature of observation	Event details	Relevance to Analysis
Virtual team meetings	Daily and weekly meetings within different virtual teams in the company meeting rooms	The virtual team meetings are an important communication forum for a manager and team members. Participative observations conducted at these events have provided this study with rich data on how managers work with their virtual teams.
Personal communication (individual meetings)	1:1 communication between me and my subordinates	Participative observation provided this study with information on how the discussions with my subordinates occur virtually.
Virtual coaching sessions	Occasional sessions on the telephone, also advising managers in coaching sessions	Participant observation conducted in the coaching sessions offered data about managers' work with their employees.
Training events and programs	Company leadership training on virtual leadership	Leadership trainings offered knowledge and experiences of the managers and how they developed their skills for virtual work.
Managers' work on virtual platforms	The managers collaborating with their employees on social platforms.	Shadowing provided with seeing on how managers communicate with their team members.
Informal meetings	Occasional meetings with managers, chats, daily discussions	Observations have provided this study with an understanding on the managers' everyday work.
My own experience	Employment at the company	My own experience has provided information on many aspects of managerial work in a virtual environment.

3.5.3 Company documents

For data sources, I also used written and published company documents because they increased my understanding of the business environment and provided me with more information about business strategy and leadership work and development. These documents included annual reports, customer magazines, corporate sustainability reports, employee survey reports, strategic plans, surveys about the impact of virtual work on the costs of travel and real estate (conducted by employees who worked in my team), project reports about virtual work in the company (conducted in cooperation with universities), training material for virtual leadership, questionnaires for the participants before the training sessions, and feedback data from the training programs. These documented data were mainly used at the beginning of the research project for background information.

3.6 Data production

As in any other qualitative study (e.g. Baxter and Jack, 2008), the data collection and analysis in my research occurred concurrently, i.e. I gathered, organized, and labeled my empirical data at the same time. I gradually created an overview of the interviews, which increased my confidence in the viability of the research topic. My informants described their daily managerial work in substantial detail. In order to obtain the best possible understanding of the working environment of virtual team managers, I asked them to describe their daily work in detail, but to focus on their role as managers. They described their typical schedule (answering the question "what did you did yesterday"), daily worries and issues, major and minor occasions and events, happy moments, passion, ambition to succeed, long working days across time zones, daily routines and challenges, and the continuous pressure of time. At the beginning of my PhD project, I sought an answer to the following question: "what are the challenges facing the managers of global virtual teams?" During my PhD journey the questions became more process-oriented and began increasingly to ask "how" and "why": "why is influence difficult in virtual collaboration," "how does influence play out in managerial work with virtual teams," or "how are trust and commitment related to each other". I constantly found myself pondering the daily work of my participants. However, although most managers in fact talked about the challenges, I became more interested in what was under the surface, in the other topics raised by them in describing their daily work. Eventually, my research question became the following: "How do managers talk about their work with global virtual teams?" This question was important, because it enabled me to study and identify the views and experiences of the managers in a virtual context, an approach that has seldom been taken in existing research on global virtual teams.

3.6.1 Coding

In order to facilitate data analysis, the interviews were digitally recorded with the permission of the interviewees and then transcribed and analyzed. The next phase in the analysis was systematic initial coding, so-called 1st order coding, which involves arranging and coding the terms, concepts, and categories originating from the talk of the research participants (Charmaz, 2006; Strauss and Corbin, 1990). According to Charmaz (2006), coding is the pivotal link between collecting the data and developing an emergent theory to explain them. Through coding, "you define what is happening in the data and begin to grapple with what it means" (Charmaz, 2006, 46). Qualitative coding, the process of defining what the data are about, was hence my first step in moving beyond concrete statements in the data to analytic interpretations. The codes attempted to portray meanings and actions in the managers' talk, and suggested categories that could be developed further. In this phase in my study, the transcriptions were therefore grouped into categories and themes such as "I tried to build trust with my team members", "I needed to gain the commitment of my employees to do their tasks", or "frustration with the continuous pressure of time".

In the next phase of the data analysis, I started to categorize the themes that emerged in the transcriptions, grouping more specific themes and items. Here I was dealing with "2nd order data, which are the themes and dimensions originating from the researcher's theoretically-based interpretations and the informants' words and actions (Charmaz, 2006). In this phase, theoretically-based expressions such as "swift trust in global virtual teams", "identification of influence strategies and tactics", or "managers' emotions" and "task-oriented leadership" were used in revising the initial coding. In this phase, I gradually discovered that certain themes emerged in the transcripts and in the managers' talk, and started to form groups out of those themes. These groups comprised the themes and topics about which many of the research participants talked. First, several managers described the difficulties entailed in managing virtual teams. They explained that they tried to lead their virtual teams as they would have led co-located teams. According to the managers, leading their employees in "a traditional way" turned out to be both different and difficult in a virtual environment. When I asked them to elaborate on these differences, many of my informants said that one of the biggest differences and challenges was to work out how to influence their virtual employees. Some managers even insisted that the biggest difference between managing virtual employees and co-located employees was apparent in efforts to exert an influence. They spoke of "virtual influence", in which they attempted to persuade their employees without the benefit of non-verbal cues such as face, nodding, gestures, or body position. While collecting my data and reading more about influence, Harvard Business Review (July-August 2013) published a special issue on influence. In this issue the authors and interviewees advised managers to increase influence for example by leaning forward when talking and by smiling (e.g. Cuddy et al., 2013), but entirely neglected situations in which managers work virtually, i.e. without an opportunity to use such gestures. My participants discussed the methods and tactics they used in attempts to influence their virtual employees and I became ever more interested in the topic. Thus, influence tactics became the first theme for my study.

The second theme that arose in the interviews was trust, which is vital for influencing people. My research participants frequently said that trust is important and crucial in virtual collaboration. Trust has indeed been a key topic of virtual work research since the early stages (e.g. Al-Ani et al., 2011; Hertel et al., 2005; Jarvenpaa and Leidner, 1999; Maznevski and Chudoba, 2000; Pinjani and Palvia, 2008). However, as I proceeded with the interviews, I increasingly encountered conflicting statements and experiences. The managers talked about the importance of trust, but said that building trust takes a long time, and in virtual work that time is not available. However, full commitment is needed from your employees. Implementation is necessary even if there is no trust. Trust develops and grows over time when people get to know each other. There is less time, however, for encounters in a virtual environment; organizations and teams change fast. As current literature on trust in virtual teams suggests that trust is needed to gain commitment (e.g. Wilson et al., 2006; Aubert and Kelsey, 2003), I became interested in the potentially different dynamics of trust and commitment in global virtual teams, for example whether it is indeed possible to have commitment without trust.

In the next phase of the data analysis, I noticed how the managers talked about cultural challenges, particularly in relation to Chinese employees, and took a closer look at cultural encounters as a third theme in my analysis. All my informants had global, geographically distributed teams with employees from different nationalities and cultural backgrounds. A single team typically comprised 2 to 8 different nationalities and cultures, but as China was the fastest growing market area of the company, most informants had several Chinese employees in their teams. It also turned out that in the opinion of the managers (of which approximately 90% were Finnish natives) their Chinese and their Asian employees in general were the most different and most challenging. In addition, they described the challenges involved in focusing adequately on caring for, supporting, coaching, and developing their employees. Their Chinese employees expected action in all these areas. They also expressed concern that despite these obvious expectations, their work had become increasingly more like management rather than leadership, because time did not permit them to listen to their employees, or to support, coach or talk with them.

These expectations increased the pressure on the managers, and I became sensitized to how they talked about their own emotions and feelings. At some point in the interviews, almost all the informants talked about their feelings, positive and negative, including emotions of inadequacy, frustration, and guilt. Consequently, I chose the emotions of managers as the fourth theme. In many interviews my last question was the following: “if you needed to describe your work with one sentence, what would it be”, and after thinking and often long pauses, many of them said “constant feelings of inadequacy and guilt”. Most managers talked rather openly about their emotions. The fact that we had been able to create a good atmosphere for the discussions was probably one reason why they felt at ease in talking with me about their emotions. The figure 4 illustrates the emerging themes in data collection.

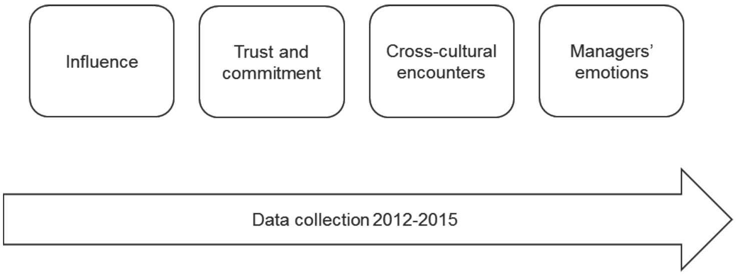

Figure 4. The emerging themes in data collection

In the last phase of the analysis, I continued to cluster and code my findings from the interview data and the field notes (observation). I wanted to be sure that I had received adequate data and had asked the best follow-up questions, which would then eventually permit me to answer my research questions. At the end of the coding phase, I added more detailed codes and items to the analysis, such as codes for 11 influence tactics and codes that explained certain management behaviors. For instance, in looking for how and when managers try to influence their virtual employees, I created extensive Excel sheets to group the various tactics discussed. When certain aspects came up repeatedly, I clustered them in smaller groups. I then combined cells and themes when they were connected with each other. This phase of the analysis took a long time, and while thinking and planning the themes of the study, I had to return to the transcripts hundreds of times. In this phase of the study, I also became familiar with coding software. I tried systematic coding tools (such as Atlas.fi), but found them too rigid for my study. Although the software provided allowed me to make a through listing of all potential items and codes and careful calculations, I realized that some important data might be left out that I, as a researcher, would be unable to differentiate between themes or items in terms of their importance for the study. Hence I finally coded all the data manually using different symbols, colors, and marks, which I commonly refer to here as codes.

The initial steps in coding moved me toward later decisions about defining my core conceptual categories, such as influence tactics or managers' emotions. In the beginning I had only the first two themes and then added the third theme for coding. Finally I coded the transcripts for the fourth theme. In analyzing the data, I conducted "incident-to-incident" coding (Charmaz, 2006) rather than word-by-word coding. For instance, when the managers said something about trust, I marked the quotations with the "trust" code using a specific sign (and blue symbol). This helped me in the next phase to categorize the themes more carefully. In the second major phase in coding, characterized as "focused coding", the codes were more directed and selective (Charmaz, 2006, 57). For example, when I coded influence tactics, I used 11 tactics identified in the earlier literature and then continued to another round of coding with one additional tactic and two strategies (presented recently by Wadsworth and Blanchard, 2015). These new codes were relevant for my research because they were associated with virtual teams (see Wadsworth and Blanchard, 2015). Despite aiming at a very systematic analysis, coding was an evolving process; unexpected ideas emerged, some themes faded, and I had to return to the transcripts again and again.

3.6.2 Iterative research approach: rotating chain

In the process of generating and making sense of the qualitative data, the coding gradually helped me to distill the theoretical themes from the data. After obtaining new data from the interviews, I continued to study the literature on virtual work and what earlier research had learned about the themes that had emerged from the data. Hence, prior research, empirical findings, and theoretical ideas were constantly intertwined in my research. This iterative approach proceeded like a rotating chain (see figure 4); I started from my practitioner background and interest in the topic, and then studied the previous literature after which I made the first empirical observations and pilot interviews. I subsequently returned to study theory and literature, and continued with more empirical studies. This was repeated several times in order to understand the phenomenon as deeply as possible. In the iterative approach the researcher's observations, interview data, and theory are blended together in relation to the research problem (e.g. Welch et al., 2011). Thus, my research did not proceed in a straight line toward the goal. There were different phases, and I went along numerous paths that led me in various directions, after which I returned to the original path and tried again. My study can be characterized as open-ended, expressing flexible interaction between research questions, data collection, and research claims. Easterby-Smith (et al., 2008) use the term funnel-shaped design for this phenomenon; the refined focus of the research derives from iteration between the research questions, data collection, and research claims over the life of the project. As a result of going back and forth between research question, data, and concepts, there should be a close fit between the research claims and the data that inspired them (Easterby-Smith et al., 2008). I also had the great advantage that qualitative researchers have over quantitative colleagues: the possibility of adding new pieces to the research puzzle or conjuring entire new puzzles while gathering the data (see Charmaz, 2006). This is exactly what I felt sometimes; I was making a puzzle, looking for missing pieces and being frustrated in the process Christopher Bartlett (in Piekkari and Welch, 2011) talks about a mosaic in which the picture becomes clearer when all the pieces have found their place. My iterative research path is described in figure 5.

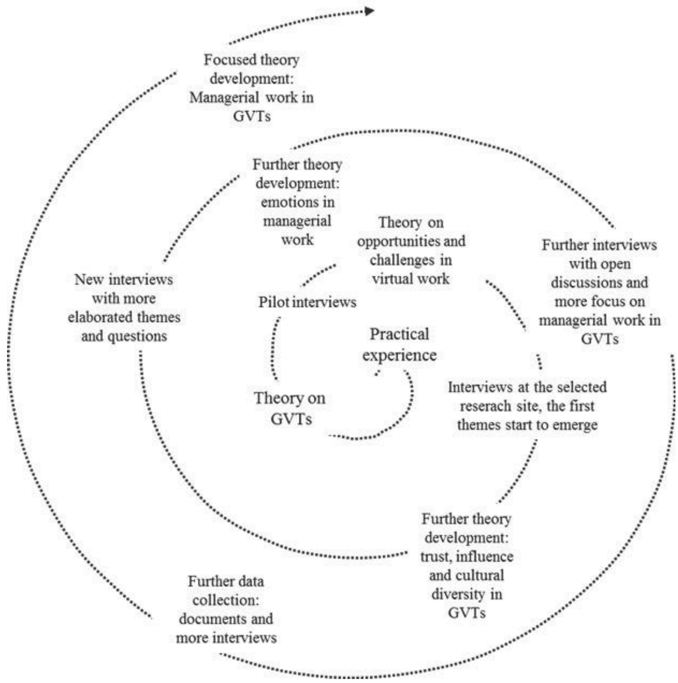

Figure 5. Interplay between theory and data generation (interviews)

3.7 Quality assessment of the study

This section assesses the quality of my study (e.g Welch and Piekkari, forthcoming; Andersen and Skaates, 2004; Symon and Cassell, 2012; Creswell and Miller, 2000; Lincoln and Guba, 1985). In adopting a subjectivist ontology and aiming at interpretive sense making of the interview data, my goal was not to produce causal explanations, generalizable findings, or replicate the study in other contexts, but to understand how managers themselves experience and talk about global virtual teams. Reflexivity, not objectivity, was the goal of my study. Reflexive knowledge is situated and includes recognition of the multiple translation strategies that bring it into being (Alvesson et al., 2008). Ultimately, researchers need to be able to defend why they have put forward particular concepts and theories as explanations for phenomena (Welch and Piekkari, forthcoming).

Evaluating the quality of qualitative research is not unambiguous, and there is an ongoing debate over what criteria should be used for assessing qualitative research or whether criteria are necessary at all. Validity and reliability, which have been widely used in assessing the quality of positivist research (e.g. Yin, 2003), would not always appear to be the best criteria for all qualitative studies, and according to Johnson (et al., 2006), one size in fact does not fit all. Symon and Cassell (2012, 214) conclude that “as qualitative research is so diverse, our overall view is that qualitative researchers should draw on elements of quality they think are most relevant to their own research”. This will also be my approach in assessing the quality of my study.

Welch and Piekkari (forthcoming) have re-assessed the evaluative criteria and methodological myths of qualitative research, particularly for international business. They remind us that “validity is ultimately about putting one’s interpretations to the test” (Welch and Piekkari, forthcoming, 17). In evaluating existing criteria, they also discuss proceduralism, which is based on the assumption that high quality results from merely following the right procedures. Maxwell (2012) and Vanderberg (2006) criticize the proceduralist approach to quality assurance. Welch and Piekkari (forthcoming) also warn against excessive proceduralism and advocate context dependence with respect to quality criteria. For them, it is important that researchers are aware of the threats to validity that apply to one’s project and address them in ways that are appropriate to the context of the study. This is particularly relevant in international business research, where the cross-border nature of the research site matters in deciding which procedures are appropriate. Concurring with Maxwell (2012), Welch and Piekkari (forthcoming, 17) recommend that when assessing quality, researchers should ask “how might my conclusions be wrong?”

In my study I will address quality issues from an interpretive perspective. The following discussion builds on Andersen and Skaates (2004), who distinguish between the quality of the research process and that of the research findings (see Table 4). Furthermore, I will evaluate the quality of my study with respect to the research context in which I undertook my project. Table 4 summarizes the quality assessment of my study, the actions taken in assessment of the quality of the research process, and the quality of the research findings.

Table 4. Summary of quality assessment for the study (adapted from Andersen and Skaates, 2004), and actions taken in the assessment

Quality of the research process	Quality of the research findings
▪ High transparency (Bluhm et al., 2011): I aimed at keeping transparency high on the agenda throughout the research process and presented the evidence for the conclusions ▪ Responsiveness, openness and sensitivity in data collection (interviews): I chose the informants carefully, prepared for the interviews, I did my best to find suitable times and places for interviews, worked closely with the participants, I used open communication to gain trustworthiness, academic rigor, and neutrality ▪ Concurrent data collection and theoretical analysis: mosaic (Bartlett in Piekkari and Welch, 2004) and rotating chain (Figure 5) ▪ The use of multiple sources: in addition to interviews, I used observational data and company documents as data sources. ▪ Reporting the data collection: I reported and documented the data collection carefully (audit trail; Creswell and Miller, 2000). ▪ Reflexivity, also self-reflection (Bansal and Corley, 2011; Creswell and Miller, 2000): I tried to self-disclose values and potential issues, and reflected on my role in the study.	▪ Self-reflection (Bansal and Corley, 2011), researcher reflexivity (Creswell and Miller, 2000): I reflected on my role in the study regarding my findings. ▪ High transparency and careful presentation of findings: I aimed at transparency when presenting the research findings (audit trail, Creswell and Miller, 2000). ▪ Verification of interpretations with research participants (member checking, Creswell and Miller, 2000): I asked the participants to check my findings and interpretations and I was open to alternative interpretations and understandings. ▪ Peer debriefing (Creswell and Miller, 2000): I asked my academic peers and supervisors to review the findings. ▪ I used a diary for tracking emergent themes and changes (Andersen and Skaates, 2004; Jorgensen, 1989). ▪ I included quotations and examples of the data (cf. Miles and Hubermann, 1994) to help assessing the rigor of the analysis.

3.7.1 Quality of the research process

In this section I will discuss the different stages of quality assessment in my research process. These stages comprised selection of the research participants and the research site, the interviews and preparation for them, reporting and documentation, and the data analysis.

Qualitative studies are often criticized for not being sufficiently transparent (e.g. Tracy, 2010). When assessing the quality during the research process, Andersen and Skaates (2004, 476) remind the researcher to engage constantly in critical self-questioning, “to what extent are detected patterns a product of my expectations”? During the research process, I took a number of steps to increase openness and transparency (see also Bluhm et al., 2011; Morse et al., 2002). Overall, I used open communication by signaling and demonstrating trustworthiness, academic, rigor and empathy throughout my research process.

In my research process, data collection and theoretical analysis occurred concurrently, as described in chapter 3.6.2. (figure 4). Andersen and Skaates (2004) see this concurrence as an important means of ensuring process validity. In this instance, I used existing theory to identify puzzles and gaps in my interviewees' answers and returned to these questions in order to critically assess their understanding of the observed phenomena. As described earlier, this iterative approach in my research process could be seen as a "rotating chain", a "funnel-shaped design (Easterby-Smith, 2008)", or a "mosaic" in which the picture became clearer when all the pieces had found their place (see Christopher Bartlett's interview in Piekkari and Welch, 2011).

In the beginning of the research process I selected the research participants carefully on the basis of the criteria described in detail in the previous sections of this chapter. I was able to select the participants in a way that allowed me to answer my research question and meet my aims and objectives. Open access to the company was part of my quality process; I acquired a large number of research participants for my research project in order to obtain multiple manager voices. This contributed to the credibility of the final quality of my study. I chose a Finnish technology company for the research site, which I had learned to know well during the years I worked for it. However, when the interviews started, I was no longer working for the company. Knowing the research site beforehand meant that I had a familiar context when I selected the topic of my study. The company warmly welcomed me to do the study, and the active and intensive collaboration with my research participants generated insights and knowledge that could not have been gained otherwise, for example in a survey. I believe that I was able to get my participants to talk openly and broadly, partly because they knew me beforehand.

I prepared carefully for my interviews. I outlined the topics I covered in my interviews to explain why they were needed in relation to my research questions and objectives. In addition, I was prepared for the unexpected opportunities and problems I might face in the interviews. As Wilkinson and Young (2004) remind us, research is always an emergent process; as we do not know at the outset what we will discover or the problems we might encounter, we must be prepared to adapt to the knowledge and insights we encounter along the way. In the interviews, I asked the research participants, i.e. the managers, to describe their everyday work with global virtual teams in their own words. I developed a checklist of topics to be covered in the interviews, although at the same time I wanted to allow the research participants to talk freely, and gave them as little instruction as possible to avoid leading them to certain topics. As compared with tightly structured interviews, the qualitative interviews I conducted provided the participants with substantial freedom to construct emic meanings for managerial work in virtual teams. However, at some points when the discussion expanded to less relevant themes, I guided the participants back to the topic. I tried to avoid the risk of interviewing only a homogenous group of managers, for example top management (see also Macdonald and Hellgren, 2004). To improve access to the managers' life, to obtain rich data, and to make the interviews as easy as possible for the managers, I did my best to find suitable times and places to conduct them in order that each participant could feel relaxed and was more likely to answer my questions openly and honestly.

I used multiple sources of data in my research. In addition to the interviews, which were the primary data, I used observational data and company documents. As a researcher and an interpreter, I again looked for a multitude of voices and used all the data sources in an interpretive way to gain a holistic understanding of the phenomenon at hand. Throughout the research process, I aimed at keeping transparency high on the agenda. I aimed at reporting and documenting the data collection and analysis carefully and clearly. I carefully explained all the phases of my project. In addition, I maintained a research trail to establish a proper chain of evidence throughout the research process. Interviews, documents, and field notes were recorded and transcribed, indexed, and systematically filed. According to Creswell and Miller (2000), this kind of thorough reporting and filing in a research project is called an audit trail.

When analyzing the data, I aimed at transparency in reporting the analysis to provide sufficient information to allow readers to see how the analysis was made (see e.g. Bluhm et al., 2011). My aim was to make the research process and narrative transparent and detailed. While analyzing the data, I identified the core concepts used to determine whether they were relevant to the research topic. In the analysis, and particularly in categorizing units of data, the categories were derived from the literature or the data itself. During the analysis, I attempted to confront challenges with careful reflection. I did this in particular by discussing the issues with my research participants and by going back and forth between the data, methods, and theory, taking data and accounts back to the participants for comment and review. These actions are called member checking by Creswell and Miller (2000). In addition, I wanted to obtain verification for my findings after clustering and coding and asked several selected participants supplementary questions. In this phase I conducted member checking (Creswell and Miller, 2000); I mailed or called the managers interviewed to briefly check whether I had understood the information correctly and presented additional questions about their statements and expression. I met some research participants many times in different phases of my study. For example, I had a breakfast or lunch meeting with a few of my participants once a year during my research project. I wanted to see whether I was on “the right track” and to follow-up what was going on in the company.

Language became a methodological issue relating to the choice of methods, data production, transcription, and analysis (and later in interpretation as well). With two exceptions, the interviews were conducted in Finnish. My nationality is Finnish, which was the nationality of most of my research participants, and this helped us to understand each other. It was easy for me to talk with the participants and get them to speak to me. The research report was written in English, and in the analysis phase, I needed to translate the quotations of the research participants, spoken and transcribed in the Finnish language, into English. I was aware that the process of translating the quotations was hardly unproblematic. Welch and Piekkari (2006) focus on issues associated with transcribing and translating data across languages. According to them, the researchers face additional challenges when interviewing in one language and reporting the research findings in another (Piekkari and Welch, 2006). I conducted the interviews in Finnish, translated them into English, with the help of professional language editors (native English speakers) who were able to compare the Finnish and English versions. I analyzed the data from the Finnish language using English codes, and I did the analysis in English in the phase when I grouped the codes. I tried to translate the quotations as carefully as possible. I also sent the translated quotations back to some of the research participants and asked them to check whether the translation corresponded to their original meaning. When they agreed with the translations, I was convinced that the translation had been done correctly.

Finally, when assessing the quality of the research process, I reflected on my own role and potential expectations actively and carefully. Several scholars (e.g. Bansal and Corley, 2011; Creswell and Miller, 2000) discuss self-reflection as an important means for assessing quality. In my study, I reflected on my own role in the process, for example as an interviewer, and tried to self-disclose potential issues, values, or my own expectations. For example, listening to the managers openly in the interviews without any pre-assumptions facilitated obtaining valid data. I recognized my role as an insider (see chapter x) and did my best to avoid any pre-assumptions and to remain as open and neutral as possible throughout the process. One additional advantage throughout the research project was my strong commitment to the research topic. I worked with the data intensively and carefully and I believe that this has impacted the quality of both the research process and the findings of this study.

3.7.2 Quality of the research findings (outcome validity issues)

As mentioned earlier, one of the potential challenges in my study was my own role in the research process. In this study, I was an integral part of the production and analysis of the research data, of the study itself, and also a subjective research instrument myself. I was living the life of my research participants. When reflecting on the research findings, I was aware that my background in the company impacted my research and played an important role throughout my study. Since knowledge was the product of co-creation between the researcher and the researched in a specific time and place (Welch and Piekkari, 2006), reflexivity became important in this interpretive interview study, which was based on a constructivist view of reality. I have been an employee and a practitioner in the company where the data were generated and had many roles in this study, i.e. interviewer, analyst, interpreter, and reporter. As I was an "insider", particularly at the beginning of the study, and had previously been close to the research site, there were potential challenges, such as my own expectations about the results of the study. I did my best to remain open and to avoid all pre-assumptions. In addition, I no longer had ties with the company in the form of e.g. financial sponsorship. Furthermore, my supervisors provided balance and feedback and opportunities for reflecting on my thoughts. They also reviewed my findings regularly (see Creswell and Miller, 2000) and challenged them when needed.

When presenting the findings of the study, I aimed at transparency in reporting how they were found. My aim was to make the narrative transparent and detailed, by grounding the conclusions in light of the data, and by showing where the data came from and how they were transformed into findings that could be understood by an outside reader. Careful presentation and documentation of findings and an audit trail (Creswell and Miller, 2000) were conducted to determine the trustworthiness of the findings. In addition, while making interpretations during analysis of the findings of my study, I was open to alternative interpretations, other explanations, and understandings. I focused on what I did to immerse myself in the field, to distance myself, and to challenge the interpretations. Again, I called some participants after the interviews to ask additional questions (called factual verification by Creswell and Miller, 2000) and to check details which seemed relevant to the findings. As a part of the process, I regularly presented findings in different phases of the research to the case company representatives to check for possible misunderstandings and factual errors. These discussions covered both my interpretations of the meanings constructed in the data and the factual topics. According to these discussions and check-ups, my interpretations seemed to be correct. My supervisors also challenged my interpretations frequently in our monthly meetings and I discussed them regularly with other researchers and scholars of my field in tutorials, workshops, and conferences. These methods have been described as peer debriefing and member checking by Creswell and Miller (2000) and were used when assessing the quality of both the research process and the findings. According to Andersen and Skaates (2004), the central problem in presenting qualitative findings is the lack of accessibility to the interpretation process itself, mainly because qualitative data may consist of materials which are inaccessible to outsiders. In assessment of the quality of the research findings, many of the elements from the quality process are present and similar actions can be taken to assess quality. In this section, I will hence assess how both findings were interpreted (see also Sandelowski, 1986) and how interpretations were presented (see also Lincoln and Guba, 1985; Miles and Hubermann, 1994).

When I was analyzing the findings of my study, I was aware that the research participants, consciously or unconsciously, gave a certain kind of picture of the phenomena we discussed. When talking about their managerial work in global virtual teams, the interviews also made reference to the life situation and understanding of the informants. These interview situations always reflect informants' own life because "researchers and research participants make assumptions about what is real, process stocks of knowledge, occupy social statuses, and pursue purposes that influence their respective views and actions in the presence of each other and nevertheless, researchers, not participants are obligated to be reflexive about what we bring to the scene, what we see, and how we see it" (Charmaz, 2006, 15). King (2011) argues that there can be no such thing as a relationship-free qualitative interview. The relationship is part of the research process and the research findings; the interviewee is seen as a participant in the research, actively shaping the course of the interview rather than passively responding to the interviewer's pre-set questions. Proximity can, however, have many advantages. It provided me with many benefits, such as excellent access to the key informants and contextually relevant data, as suggested above. Again, my history may have produced an atmosphere of openness in the interview situations, which in turn impacted the trustworthiness of the findings. In addition, mutual trust and respect have been seen as the main ingredients of well-executed qualitative studies and managing delicate relationships with companies under study can be seen as a key skill of the researcher (cf. Piekkari and Welch, 2006). Throughout the study, I have tried to be as honest as possible towards the voices of my research participants, in reporting and writing up the analysis and findings, and in the way I interpreted and reported them in this dissertation.

Finally, I took some additional procedures to ensure the quality of my research findings. For example, I included verbatim citations and examples (see Miles and Hubermann, 1994) to help in assessing the rigor of the analysis. I also kept a research diary throughout the research project - from the very beginning of my PhD project in 2012 to its end in 2016. Use of a diary for tracking emergent themes and changes has been suggested as a means to assess the quality of research findings (e.g. Andersen and Skaates, 2004; Jorgensen, 1989). I kept a diary of all the meetings with the managers and my supervisors and wrote down their comments and other remarks. I also took regular notes about the steps during the analysis process and the results. When interpreting my findings, I often returned to my research diary, which amounted in the end to 188 pages.

In sum, I attempted to report all the findings of my study in a transparent and detailed manner by showing where the data came from and how they were transformed into findings that could be understood by an outside reader. These actions are presented in Table 4.

4. Key findings

In this section, I will briefly describe the four essays of my research and introduce the main results of each dissertation essay. In the following essays, the focus is on talk and sense making by managers: how they give meaning to their work with global virtual teams. The four essays focus on themes that emerged from the empirical data. Detailed information on the findings is presented in the original essays. All four essays adopt an interpretative research approach and three of them have used data from the 36 interviews. One essay (Management is back) has used interview data with 25 virtual team managers (the focus on managers who have Chinese employees). A great deal of empirical data has been used in each study, although the exact amounts may differ. All essays have used field observations and written documents as supporting evidence. Table 1 presents a summary of the research questions (chapter 1.3).

4.1 Essay 1: Crossing thresholds for influence in global virtual teams

The first essay highlights the reflections and experiences of managers on their daily work and practices, in which they try to influence their employees in a virtual context. The findings of this essay suggest that in so doing, managers face thresholds such as low familiarity with their employees, a lack of attention and commitment, and lack of time. Further, this essay proposes that managers learn to cross these obstacles by creating practices for themselves and their teams. These practices include formal virtual meetings, informal weekly discussions, or ad hoc spontaneous calls - depending on the goals, topics, and frequency of the interaction. Within these practices, managers use a variety of influence tactics and strategies to persuade their employees. With these practices and solutions, the managers learn to know their employees, to manage business and time, and to increase attention. Moreover, the managers perceive that these actions facilitate their attempts to exert an influence. In addition, the findings underline the importance of the role of managers as "solution makers" who try to cross the thresholds by devising new practices and using new tactics and strategies in order to ensure the effectiveness of their efforts.

Previous research has demonstrated that managers are able to influence employees through close personalized contact with them (e.g. Cuddy et al., 2013; Gibson and Cohen, 2003). It has, however, failed to explain how this close context works in a virtual context where for example non-verbal cues are lacking. Influence is a new theme in the literature on virtual teams. The first essay set out to discover how managers talk about influence and their efforts to influence their employees and how influence plays out in their practices in a virtual context. It also aims at identifying the kinds of practices used by the managers to influence their virtual employees, what potential thresholds to influence they see, and how they develop solutions and use influence tactics and strategies to cross these thresholds.

In the interviews of my study, the managers talked extensively about their efforts to influence their employees virtually and the challenges they faced. Hence this topic was chosen as the focus of the first essay. It deals with the very first readings of the empirical data of my study, when I also started to look at the findings from the perspective of influence in the literature of global virtual teams. I found that the managers talked about the influence tactics they attempted to use and about the barriers they faced when influence failed to work as it would in a co-located environment. To understand better how the managers attempted to influence their employees, I explored their influence tactics and strategies by looking at the tactics and the strategies identified by Yukl and his colleagues (e.g. 2010) and by Wadsworth and Blanchard (2015). The managers found the influence methods and tactics which they used with co-located employees inadequate or ineffective in a virtual context. They explained that they could not stress their needs, transfer energy, or be sure they were understood as they would be in a conventional environment. Conventional means of persuasion did not seem to have the same effect on virtual employees; the managers did not know them well enough and communication lacked facial expressions and body language.

Various practices were identified in the data, which related how the managers attempted to meet the challenges of virtual work. Influence attempts differed depending on whether the managers had formal practices, for example regular weekly meetings, or informal practices where they sought to learn to know their employees. In addition to these two repetitive, regular types of practices, managers also encountered situations that required one-off solutions.

4.2 Essay 2: Dynamics of trust and commitment in global virtual teams

The second essay operates with the concepts of trust and commitment, both of which are vital for influencing people (Connaughton and Daly, 2004), and frequently highlighted themes in the literature of global virtual teams, and (e.g. Gilson et al., 2015; Hertel et al., 2005). This essay extends understanding of managerial work in global virtual teams by looking at how managers talk about the dynamics of trust and commitment when working with their virtual employees.

According to my findings, the managers of global virtual teams needed to secure the commitment of employees to achieve their goals, regardless of whether there was trust. Although the managers of my study sincerely wanted to build trust and support their employees, if forced to compromise, they sometimes cut corners on trust. In some cases, trust-building was even abandoned. In such cases, commitment had to be achieved without trust, which in fact proved possible to some extent.

The contribution of this essay is to show how trust and commitment play out in the work of managers in global virtual teams. Despite the rich body of previous research, the issue of trust in virtual environments has received little attention (e.g. Crisp and Jarvenpaa, 2012). The existing research suggests that trust is a requirement and prerequisite for gaining commitment from employees (e.g. Germain and McGuire, 2014; Pierce and Hensen, 2013; Holton, 2001) and also to ensure that they complete their assigned tasks (Aubert and Kelsey, 2003). On the basis of empirical findings, this essay proposes that trust and commitment in virtual contexts are related and entangled with each other in more complex ways. My study suggests that contrary to earlier research, there is no linear or straightforward connection or causality between trust and commitment, i.e. that trust is not an "absolute" prerequisite for commitment. Commitment by employees to complete their tasks is needed with or without trust, and the dynamics of trust and commitment drove managers to make compromises.

The findings of this essay show that managers consider the dynamics of trust and commitment in virtual work important but more complex than in conventional co-located contexts. Relationship-building, which is needed to secure trust, is more difficult in virtual teams and takes more time because opportunities for face-to-face encounters are rare and non-verbal cues are lacking. Trust needs time and time is often limited in the virtual world, particularly in highly competitive and demanding business environments where instant commitment is necessary to achieve results. In managerial work, this may mean emphasis on "harder management", i.e. commitment and results have to be secured even at the cost of trust and relationship-building. Constant pressure of time, various cultural encounters, technological issues or the inability to be present for their employees may impact the work of managers in global virtual teams, as suggested in the next essay.

4.3 Essay 3: Management is back. Cross-cultural encounters in virtual teams

Book chapter with Rebecca Piekkari, published in The Routledge Companion to Cross-Cultural Management (Holden et al., Eds., 2015).

The third essay focuses on cross-cultural encounters in global virtual teams. The target of this essay is the work of Finnish managers with employees from different cultural backgrounds, particularly Chinese employees, and the objective is to discover how Finnish managers talk about their work with Chinese (virtual) employees. The data were obtained in 21 interviews, which were the primary data source, and in field observations and company documents.

It seems that the reality of virtual work limits the opportunities of global team managers to communicate and take a personal interest in the members of their virtual teams. How then do these managers support, care for, and inspire their people virtually when they are separated by distance and cultural differences? Or do they – for lack of better alternatives – settle for "second best" solutions and compromise in order to cope with their employer's requirements and employees' needs? This tension between the expectations of "good leadership" and virtual reality is a theme that surfaced in our study of Finnish managers engaged in the virtual leadership of Chinese team members.

Our findings suggest that a virtual working environment coupled with cultural differences, the pressure of time, and virtual work overload impoverished interaction between the Finnish managers and their Chinese team members and forced the former to adopt a 'hard' approach to leadership, i.e. to be economical and efficient in their communication. Consequently, virtual meetings become shorter and agendas were brief; hardly any room was left for ad-hoc topics or personal issues. According to the informants of this study, they were forced to narrow the scope of topics discussed in virtual interaction; nuances and weak signals were therefore left out. The limits and problems associated with communication technology further accentuated perceptions of the physical and psychological distance between the managers and their team members.

Current literature on virtual leadership advocates people-oriented styles (e.g. Zander et al., 2012; Purvanova and Bono, 2009) and the recent trends in leadership have emphasized a move away from conventional, task-oriented leadership to new leadership models that emphasize individualized attention, engaging emotions, inspirational messages (Avolio et al., 2009), and even "servant leadership" (e.g. Neuschel, 2005). However, our study suggests the reverse; that despite company reward and incentive systems, employee expectations and genuine attempts by the managers themselves, the virtual environment reduces cross-cultural leadership practices to "hard" management. Previous research confirms that virtual work favors task-oriented and fact-oriented communication at the expense of socio-relational communication (e.g. Thompson and Coovert, 2003). However, by associating leadership research with recent work on global virtual teams, this study uncovers the tensions that characterize cross-cultural management today.

This study shows that virtuality does indeed alter the nature of cross-cultural managerial work and calls for new leadership competences. Given the conundrum of virtual presence, micro-management is simply no longer possible. In addition, the expectations of both employees and employer (with respect e.g. to achieving goals or increasing profitability) have meant a growing workload for managers. This workload may result in stress or feelings of inadequacy, which will be explored in the final essay on the emotions of managers.

4.4 Essay 4: Living with inadequacy and guilt: the emotions of managers in global virtual teams

This fourth essay focuses on the emotions of managers in global virtual teams. Earlier research on emotions in virtual teams has demonstrated their important role in virtual work and emphasized that managers need to manage and handle the emotions of others (e.g. Ayoko et al., 2012; Eligio et al., 2012; Wilson et al., 2006). Nevertheless, few studies deal with the emotions of the managers in virtual teams, and this study attempts to fill this gap in previous research. The findings of my study indicate that in daily work with their virtual teams, managers face rigorous demands and expectations and try to meet challenges with daily routines, structures and additional training.

In their managerial work with virtual teams, the managers experienced a range of positive emotions such as joy in working with diverse people from different cultures, happiness in achieving objectives, and pride in being successful in their work. To succeed in their work, they tried to build trust and devise ways to influence their people and gain commitment. Having a strong sense of duty, managers worked hard to achieve these goals and meet business targets. The managers of my study felt stressed and often inadequate because of the various, extensive, and sometimes drastic expectations of a fast-paced global virtual environment. They told about long working days, hectic schedules, and multiple expectations. The scope of the job was seen as vast and demanding and it included a great deal of pressure stemming from daily communication and challenges. To handle their daily challenges and cope with virtual work overload and the pressure of time, the managers developed practices and processes for themselves and their teams. They built structured procedures, routines, and patterns to arrange their daily, weekly, and monthly programs, visits to sites, and face-to-face meetings. These procedures and routines were also meant to enhance the team's success and performance. Despite managers' attempts to streamline and simplify work, the pressure of time in virtual environments was considered greater than in collocated work, with real-time responses required and virtual work overload.

The managers explained that the "rat race" was the cause of their feelings of inadequacy and the inability to meet the needs and expectations of the company and the employees and indeed their own as well. In addition, they talked extensively of their concern about leadership skills, their desire to be better leaders, and their ways of coping with daily challenges and demands. Having a keen sense of responsibility, they sometimes felt guilt for being unable to serve their employees and their company adequately.

4.5 Conclusions of the study

Based on the analysis of how the managers of a Finland-based multinational corporation talk about their work, I argue that virtuality alters the nature of cross-cultural managerial work; a virtual context limits and narrows the scope of managers of global virtual teams. Conflicting expectations create pressure on managers and lead to feelings of inadequacy.

The four essays in this study elucidate different aspects of the work of global virtual team managers in a multicultural company. The findings show that when working with global virtual teams, managers face challenges which stem from the virtual nature of work; they are separated by distance and cultural differences from their employees and simultaneously face high expectations and demands from a variety of stakeholders. These challenges are highlighted in multinational teams, which consist of people from different nationalities, cultures, and languages.

Efficient management of global virtual teams is important in the pressure of a highly competitive global environment. The need for such effectiveness on the one hand and the need to take good care of the team members on the other hand create fundamental tension for the managers of global virtual teams. In the interviews of this study, the managers said that they found influencing virtual employees particularly difficult. Hence it was important and justified to study the attempts of managers to exert an influence in a virtual context. The managers explained that they needed to find new kinds of influence strategies and tactics, which have been taken up at length in prior research (e.g. Yukl, 2010; Falbe and Yukl, 1992), but usually in situations where managers communicate with their employees face-to-face. When attempting to influence and manage their team members, the managers took a variety of actions to build trust and commitment. My findings show that relationships of trust and commitment were challenged in a virtual context. The managers needed to ensure commitment, even without trust. Trust-building, which requires increased familiarity among team members, is known to take more time in a virtual context (see Jarvenpaa et al., 1998; Gilson et al., 2015; Kanawattanachai and Yoo, 2002). According to my findings, in a demanding and fast-paced virtual environment, managers do not have adequate time to build trust, but nevertheless need the commitment of their employees to get the work done and the targets achieved.

In these actions, the managers seemed to end up focusing on responsibilities and task-oriented managerial actions; although at the same time they wanted to be more "people-oriented" managers and to fulfill the expectations of employees. The reality of virtual work limited the opportunities of managers to communicate and take close personal interest in their employees. In addition, transferring energy, inspiration and motivation, all important elements of people-oriented leadership (see Zander et al., 2012), were considered more difficult in a virtual context. Further, these challenges led managers to engage in "harder" managerial activities, focusing more on increasing the efficiency of established routines and procedures, goal-setting, ensuring commitment, increasing productivity, and improving operations.

The reality of a hectic pace, multiple stakeholder demands, and cross-cultural communication through technology challenged the personal leadership goals of managers. Regular practices and routines were often seen as an effective means of reaching goals and meeting stakeholder expectations. Although managers understood the importance of care, support, coaching, and personal contacts for employees, team member locations in different time zones often made spontaneous action such as ad-hoc discussions impossible. Such tensions evolved into emotional reactions that were manifested in repeated feelings of inadequateness and guilt on the part of the interviewed managers.

Although the managers experienced emotions of joy, pride, and satisfaction in their work, they also felt inadequacy. Managers with a high sense of duty had a bad conscience for not being able to reach the level of people management they sought; they were disappointed in themselves, as they could not achieve the desired quality of managerial work, particularly with respect to leadership. This generated emotions of inadequacy and even guilt. Prior literature has recognized the isolation and stress of global managers (Jarman, 2005; Kirkmann et al., 2002; Leonardi et al., 2004; Nurmi, 2015; Sivunen, 2006), but failed to identify the emotions of managers when leading these teams. A sense of loneliness, for example, stems from global work, where it is typical that the colleagues and supervisors of the managers are located in different countries and are not easily approached when issues need to be discussed and problems solved (see e.g. Gilson et al., 2015; Kirkmann et al., 2002). When working in distant locations, managers miss personal connections, daily chats, coaching and "sparring" with their employees on a daily-basis.

The managers of my study were eager to find various coping mechanisms such as structured meeting schedules to improve their work with global virtual teams and were generally successful in this endeavor. Regular practices are often described as typical elements of managing global virtual teams (e.g. Cascio, 2000; Maynard et al., 2012; Piccoli et al., 2004; Wilson et al., 2015). These practices offer managers means to attain influence, to ensure commitment if not trust, and to follow-up results. However, at the same time they lead the managers towards more formalized, task-oriented management, which focuses on preplanned meetings and other formal practices. Virtual leadership, particularly in multinational environments, seems to encourage formal communication in structured, scheduled, and pre-planned meetings which do not leave enough room for open, spontaneous everyday discussions and personal support.

My findings complement the results of earlier research on global virtual teams (e.g. Bell and Kozlowski, 2002; Gilson et al., 2015; Jonsen et al., 2012; Joshi et al., 2009; Kahai et al., 2007, Kirkman et al., 2004; Purvanova and Bono, 2009), which highlight the various challenges involved in managing global virtual teams. According to my findings, managerial work with global virtual teams is demanding, because team members are geographically distributed and culturally diverse, and long distances limit the opportunities for face-to-face meetings. In addition, my study offers new insights on how managers talk about their daily work, management practices and emotions, and how conflicting expectations pose constant challenges. My study shows that virtuality changes the nature of cross-cultural management and calls for new leadership competences, such as virtual communication skills and recruitment skills. In the new world of work with the benefits of ever accelerating and exponential technological development, virtual work will continue to increase and shape management. For the managers of global virtual teams this means that they need to work even more through technology and need excellent skills in virtual leadership.

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Appendix I

Main guiding interview questions

The questions were used first in the pilot interviews to scan the research area, and the in the first actual interviews to focus on the research topic. When the research themes started to emerge and bigger amount of interviews was added, the interviews changed to more open discussions and fewer questions were used.

Discussion topic	**Examples of questions**
Daily work and business (and background information)	- tell about your background, work, team, business you work in - please tell about yesterday, as carefully as possible, what did you do yesterday? - please describe your "normal" day at work, how do you keep in touch with your employees or colleagues, virtual and "in the office"? - tell examples about your daily and weekly routines in your work - what kind of benefits and opportunities virtual work has provided? - what kind of challenges has virtual work provided? - what are the best part at your work?
Manager-employee relationships, communication and cooperation	- if you think about your relationships and communication between you (manager) and your employees, are there any differences in virtual and f2f work, if yes, what? - how can you as a manager influence how the relationship works? - are there any "risks" in virtual work, tell examples about your work with different people in your team - how do you create the relationship with your employees?
Skills in virtual management	- are there any certain skills needed in virtual management? If yes, what? - how do you develop yourself?
Other areas (communication trust, commitment, cultural differences)	- how do you communicate with your virtual employees? - how do you make it possible to be available, to have time and to be present? - how do you provide support for your employees? - how has your work changed in recent years? - how do you take care of yourself? - are there any limitations your organization set? - tell examples…

Appendix II

The list of Influence tactics and strategies observed and used in this study (according to Yukl, 2006 and Wadsworth and Blanchard, 2015)

Influence tactic	**Explanation**
Rational persuasion	The agent (manager) uses logical arguments and factual evidence to persuade the person that a proposal or request is practical and likely to result in the attainment of task objectives.
Consultation	The agent sees the person's participation in planning a strategy, activity, or change for which you desire his or her support or assistance,
Exchange	The agent offers an exchange of favors, indicate willingness to reciprocate a favor at a later time, or promise a person a benefit if he helps you accomplish a task.
Ingratiation	The agent seeks to get the person in a good mood or to think favorably of you before making a request or proposal.
Coalition	The agent sees the aid of others to persuade the target person to do something, or use the support of others as a reason for the target person to agree to your request.
Pressure	The agent uses demands, threats, frequent checking, or persistent reminders to influence the person to do what you want.
Inspirational appeal	The agent makes an appeal to values and ideals to target person's emotions to gain his or her commitment.
Personal appeal	The agent asks the target to carry out a request or support a proposal out of friendship, or asks for a personal favor.
Collaboration	The agent offers to provide relevant resources and assistance if the target will carry out a request or approve a proposed change.
Legitimation	The agent seeks to establish the legitimacy of a request or to verify the authority to make it by referring to rules, policies or contracts.
Appraising	The agent explains how carrying out a request or supporting a proposal will benefit the target personally.
Ambiguity reduction	Team members clarify their request so that target better understands the request.

Influence strategy	**Explanation**
Documenting communication	Written records of communications are retained
Building relationships	Establishing personal connections with virtual teammates

Part II

5. Essays

5.1 Crossing thresholds for influence in global virtual teams

Abstract

This study focuses on the reflections of managers on their daily work and practices as they attempt to influence their employees in virtual contexts. Research to-date recognizes that virtuality alters the use of power in organizations, but has not provided an understanding of the tactics used by managers to exert power in virtual contexts. My study takes an interpretive approach to shed light on how influence plays out in the practices of global managers in virtual contexts. It poses the following research question: how do managers talk about influence in different practices, what potential thresholds for influence do they see, and how do they develop solutions and use influence tactics and influence strategies to pass these thresholds. The practices were identified in the data, which were generated from 36 interviews and field data from observations. The findings suggest that in trying to influence their virtual employees, managers face thresholds such as low familiarity, inattentiveness, and lack of time. Managers seek solutions for passing these thresholds in practices and interactions by using various influence tactics and strategies with their virtual employees.

5.1.1 Introduction

Influence and leadership are tightly intertwined and broadly investigated research areas. Influence is traditionally defined as an attempt to affect another to feel, think, or behave in a desired fashion (e.g. Falbe and Yukl, 1992). In virtual teams, technology and contextual factors may moderate the effects of leadership or reduce leader influence (Kahai et al., 2012; Kelloway et al., 2012) and current research suggests that virtual environments may moderate leadership effects in such teams. Differences have been observed, for example, in the strength of the effects of different leadership styles (Bell and Kozlowski, 2002; Joshi et al., 2009; Purvanova and Bono, 2009). Despite rapid increase of interest in virtual teams in recent years, research that examines how managers persuade team members in virtual contexts to carry out tasks remains limited (Boughton, 2011; DeRosa, 2009; Kelley and Kelloway, 2012; Zander et al., 2012).

In global virtual teams, the members of which are geographically distributed, managers depend heavily on electronic communication to stay in touch and persuade team members to carry out tasks. Despite the fact that managers have formal power over their employees, distance from team members and virtual dependence may complicate exercise of their authority and decrease the possibilities for influencing (e.g. Zhang and Fjermestad, 2006). For example, reliance on virtual communication reduces the opportunities of managers for monitoring, controlling, and directly observing the task compliance of team members. Virtual communication also reduces nonverbal cues about interpersonal affections such as tone, warmth, and attentiveness and therefore lengthens and complicates relationship and trust building (e.g. Klitmoller and Lauring, 2013). Because it is crucial to know the people you want to influence (Yukl, 2006), distance and virtual dependence may create obstacles for managerial influence in virtual teams. To be successful, however, managers have to find ways to cross these thresholds in order to exercise leadership power from a distance and get team members to carry out tasks. Influence tactics are the methods people use to translate power into actions. While power is an ability that arises from both organizational (e.g. position) and personal (e.g. expertise) sources, influence tactics are the behaviors through which individuals exert power (Yukl, 2006).

This study aims to find out how influence plays out in the work of managers in global virtual teams. The need for research on influence in virtual contexts is underscored by ongoing developments in both organizational design and communication technology. Virtual or e-leadership has been defined as a social influence process embedded in both proximal and distal contexts mediated by information technology that can produce a change in attitudes, feelings, thinking, behavior, and performance (Avolio et al., 2014, 107). Although the ability to lead people in virtual, distributed teams is no longer an option but a requirement for success, we have amassed little knowledge about how managers influence from a distance. A substantial body of research has created a different categorization of influence tactics in face-to-face context that most often include rational persuasion, consultation, exchange, ingratiation, coalition, pressure, and inspirational and personal appeal (e.g. Kipnis et al., 1980; Yukl and Falbe, 1990; Yukl and Tracey, 1992). This work, however, was mainly conducted with co-located workers, thereby limiting our understanding of influence across distance and via information technology in virtual teams. Some very recent studies (e.g. Wadsworth and Blanchard, 2015), however, have reviewed potential influence tactics and strategies particularly in virtual work, such as ambiguity reduction and communication documentation.

However, more knowledge and empirical research are needed about how managers influence across distance, time, cultures, and organizations, and how influence tactics work in virtual teams, and particularly in the global teams of multinational corporations. My study is comprised of interviews of global virtual team leaders and will explore how managers talk about their efforts to exert an influence in virtual environments in order to cross influence thresholds. The aim is to provide rich empirical data on how influence plays out in global virtual teams.

5.1.2 Influence in managing virtual teams

Influence is an essential factor in organizational communication; people must influence others to ensure commitment, carry out requests, support proposals, and implement decisions. The terms interpersonal influence (Dillard et al., 2002), dyadic influence (Barry and Fulmer, 2004), and interpersonal persuasion (Wilson, 2003) have been used to describe situations where an actor with an objective uses strategies or tactics intended to preserve or alter the behaviors of an individual. Scholars have developed a variety of typologies for influence attempts. Such attempts have been classified according to the target of the effort and on the basis of whether they are downward (influencing subordinates/employees), lateral (influencing peers), or upward (influencing superiors).

Influence tactics are used to enact power over others in order to shape attitudes and behaviors toward managers and/or their requests (e.g. Falbe and Yukl, 1992; Yukl and Tracey, 1992; Yukl et al., 1995) and their impact on commitment, compliance, or resistance (e.g. Yukl and Tracey, 1992; Yukl et al., 1996; Yukl et al., 1999). Several typologies have been developed according to the tactic or procedure used by an agent to affect the target's behavior or cognition. Influence tactics are the specific actions that people take to influence others, to get people to perform desired tasks. Yukl and his colleagues (e.g. 2005) have developed and identified eleven distinct, proactive influence tactics according to their primary purpose. (1) Rational persuasion involves use of explanation, logical arguments, and factual evidence when initiating a request. (2) Apprising is used when the request is likely to benefit the employee, for example her/his career. (3) Inspirational appeals are an attempt to gain commitment by arousing emotions. (4) Consultation occurs when the employee is encouraged to participate in planning or improvements. (5) Collaboration comprises an offer to provide the necessary resources and assistance needed by an employee to carry out a request or approve a proposed change. (6) In ingratiation the manager uses praise and flattery or expresses confidence, and (7) a personal appeal involves asking someone to do a favor out of friendship or loyalty. Further, (8) exchange is used as an influence tactic when the manager offers an incentive or suggests an exchange of favors. (9) Coalition tactics are used to seek the aid of others to persuade the target to do something, and (10) legitimating tactics involve getting help from others to influence the employee. Coalition partners can be peers, subordinates, managers, or outsiders. Legitimating tactics are attempts to establish authority or the right to make a request. Finally, (11) pressure includes threats, warnings, and assertive behavior such as repeated demands or frequent checking to verify compliance with a request. (Yukl, 2010, 164-169)

In addition to Yukl's influence tactics, there is a significant amount of research on categorizations or dimensions for influence methods and strategies. Kipnis (et al., 1980) identified 370 tactics and summarized eight dimensions of influence: assertiveness, ingratiation, rationality, sanctions, exchange, upward appeals, blocking, and coalitions. Schilit and Locke (1982) examined the process of upward influence in organizations from the perspectives of both the subordinate and the supervisor, and identified influence methods such as rational presentation of ideas, upward appeal, threat, manipulation, formation of coalitions, and persistence. Mowday (1978) studied selected aspects of the exercise of influence in educational organizations and suggests five methods of influence: threat, legitimate authority, persuasive arguments, rewards or exchange of favors, and providing information in such a way that the recipient is not aware of being influenced. Falbe and Yukl (1992) suggest that influence tactics can be grouped into three categories: hard tactics, soft tactics, and rational persuasion; and recent studies have used these meta-categories to examine the relationship between influence behavior and other leader attributes (see also Sparrowe et al., 2006). According to the findings of previous studies (Falbe and Yukl, 1992; Yukl and Tracey, 2002), hard tactics (e.g. pressure, legitimating, and coalition) were generally less effective than soft tactics (e.g. inspirational appeals and consultation). In this study, I will use and observe the eleven influence tactics identified by Yukl (and his colleagues, e.g. 2010). They provide an extensive entity of strategies used by managers to influence their employees. Table 5 describes the tactics explored in this study and explains how managers (agents) can use them with their employees (targets).

Many earlier scholars of influence, including authors of recent studies, assume that influence operates in a virtual context much like it does in a face-to-face environment (e.g. Cuddy et al., 2013; Mikes et al., 2013; Yukl, e.g. 2010). However, important differences between these contexts may alter how influence tactics are expressed in virtual teams. In a very recent study on influence tactics in virtual teams, Wadsworth and Blanchard (2015) studied influence processes in virtual teams and examined how influence tactics and processes are manifested in virtual teams and which influence tactics are most successful in this context. They contend that virtual environments create additional difficulties for influence attempts. According to their findings, some influence tactics are present in both face-to-face and online environments, although there is a tendency to use more assertive tactics in virtual teams. In addition, some tactics were enacted in novel ways due to virtual communication. The novel ways were, for example, adding the word urgent to subject headings (pressure), forwarding and 'CCing' email for higher organizational members (coalition, legitimation), using technology to track and generate data to draw attention to particular information (rational persuasion), screen sharing (consultation), or emoticons that make the communication more friendly (personal appeals). (Wadsworth and Blanchard, 2015).

Table 5. Influence tactics (according to Yukl, 2010)

Influence tactic	Explanation
Rational persuasion	The agent (manager) uses logical arguments and factual evidence to persuade a person that a proposal or request is practical and likely to result in attainment of the task objectives.
Consultation	The agent seeks a person’s participation in planning a strategy, activity, or change for which support or assistance is sought.
Exchange	The agent offers an exchange of favors, indicating willingness to reciprocate a favor at a later time, or promises a benefit for accomplishing a task.
Ingratiation	The agent seeks to get the employee in a good mood or to think favorably of her/him before making a request or proposal.
Coalition	The agent seeks the aid of others to persuade the target person to do something, or uses the support of others as a reason for the target person to agree to the request.
Pressure	The agent uses demands, threats, frequent checking, or persistent reminders to get the employee to do what she/he wants.
Inspirational appeal	The agent makes an appeal to values and ideals to target s person’s emotions and gain his/her commitment.
Personal appeal	The agent asks the target to carry out a request or support a proposal out of friendship or asks for a personal favor.
Collaboration	The agent offers to provide relevant resources and assistance if the target carries out a request or approves a proposed change.
Legitimation	The agent seeks to establish the legitimacy of a request or to verify the authority to make it by referring to rules, policies, or contracts.
Appraising	The agent explains how carrying out a request or supporting a proposal will benefit the target personally.

In addition to the earlier identified tactics, Wadsworth and Blanchard (2015) identified a new influence tactic, i.e. ambiguity reduction. In ambiguity reduction, team members clarify their requests so that the target understands them better. As communication challenges and misunderstandings are known to be among the typical challenges in virtual work, this tactic can be used to improve mutual understanding. Three behaviors that exemplified ambiguity reduction were identified: sharing information, creating accountability, and providing examples. In virtual contexts, there are fewer cues present to clarify meaning and for example an empathetic perception of team members may be more difficult to obtain. (Wadsworth and Blanchard, 2015)

Various factors, present particularly in virtual work, may hinder managers in exerting an influence. For example, virtual team contexts preclude many opportunities for virtual team members to get to know each other and build close relationships. Prior research has found that familiarity can help teams handle complexity (i.e. when team coordination is more difficult). Espinosa et al. (2007), who studied familiarity, complexity, and team performance in geographically distributed teams, confirmed that the contribution of team familiarity to team performance was enhanced when team coordination was more challenging, for example in global virtual teams. According to Zhang and Fjermestad (2006), virtual team leaders lack sufficient authority due to their distance from team members. Similarly, Elron and Vigoda-Gadot (2006) found that limited familiarity with team members was associated with the use of fewer and softer, i.e. less obvious and forceful influence tactics in virtual teams. Virtual working environments may also decrease informal personal communication, as discussion is mainly work-related, and this affects social relationships between co-workers (Virolainen, 2011). Regarding relationships with managers, Pauleen's (2003) data showed clearly that managers considered it essential to build some level of personal relationship with their virtual team members before commencing a virtual working relationship. Moreover, Wilson (2003) studied interpersonal persuasion strategies in computer-mediated communication and found significant differences especially between the perceived effectiveness in virtual communication and that in face-to-face communication. His findings indicate that different influence and persuasion strategies are emphasized in virtual communication and in face-to-face communication, implying that the need to influence and persuade is an important factor in choosing effective media for a given communication. Bradner and Mark (2002) found in their experimental study that people were less likely to be persuaded, less willing to cooperate, and more likely to deceive collaborators who were geographically distant.

Influence possibilities in virtual collaboration are not stable but can change and develop over time. Communication and interaction may develop and change when people learn to know each other. Greater familiarity with employees may increase the prospects of managers to exert an influence. Face-to-face collaboration is generally known to increase familiarity. Hinds and Cramton (2014) studied coworker familiarity in globally distributed virtual teams and examined the interplay between distant work and face-to-face site visits. They found that team members became more familiar with each other during the site visits and this familiarity subsequently provided a closer coworker relationship in virtual collaboration. They propose that relationships are transformed due to situated coworker familiarity, which is established when people are co-located in a shared space for an extended period of time. (Hinds and Cramton, 2014)

In addition to tactics, virtual managers can build and use certain strategies to improve their influence attempts. In their study of influence tactics in virtual teams, Wadsworth and Blanchard (2015) identified two influence strategies. With influence strategies, they mean the best practices used by participants at all times, regardless of the influence target and not focused on particular cases, but with more strategic use of influence tactics. Thus, strategies can be seen as broader and more long-term than tactics. According to Wadsworth and Blanchard (2015), these influence strategies are building relationships and documenting communication. Relationship building is a strategy that establishes and strengthens personal connections with virtual team members, i.e. increases familiarity, and documenting communications is a strategy in which team members or managers can save written records of communications. These influence strategies, which occur with multiple influence events, are typically used to build trust which can further be leveraged into power and influence. Moreover, it has been suggested that these strategies can be seen as ongoing patterns of behavior and not necessarily for the sole purpose of influencing team members. (Wadsworth and Blanchard, 2015)

When discussing whether influence plays out differently in co-located and virtual work, there seem to be two different schools of thought. Yukl and some other researchers (e.g. Cuddy et al., 2013) assume that influence tactics operate rather similarly in face-to-face and virtual teams (e.g. interview with Gary Yukl, November 2012). Other scholars (e.g. Elron and Wigoda-Gadot, 2006; Wadsworth and Blanchard, 2015; Wilson, 2003; Zhang and Fjermestad, 2006) suggest that virtual environments create additional difficulties for influence attempts and geographic and temporal distance may affect the selection of tactics and their effectiveness. As managers tend to use influence tactics that are likely to be feasible in terms of their positional power, and not costly in terms of time, effort, or loss of resources (e.g. Vigoda-Gadot, 2003; Yukl and Tracey, 1992; Yukl et al., 1993; Yukl et al., 1995), technology may indeed alter the cost-benefit balance and selection of such tactics. The lack of face-to-face communication and physical interaction - with their associated verbal and nonverbal cues – poses challenges for managers when they attempt to influence virtual team members.

In sum, research on influence in virtual teams remains rare, but fortunately recent studies have provided us with new insights into this interesting research area. The discussion on influence tactics has been built basically on the work of Yukl and his colleagues (1990-2012), who have extensively explored influence tactics, but only in face-to-face teams. In my study, I will observe eleven influence tactics identified by Yukl (e.g. 2010), and additionally one new influence tactic, i.e. ambiguity reduction, which was identified by Wadsworth and Blanchard (2015) in their recent study. In addition to the influence tactics, I will also observe two influence strategies, i.e. documenting communication and building relationships (Wadsworth and Blanchard, 2015), in case the managers of my study talk about them. While the few earlier studies on influence in virtual teams have reviewed influence in either lateral (between team members) or upward (from employees to manager) relationships (e.g. Elron and Wigoda-Gadot, 2006; Zhang and Fermestad, 2006), my study will observe influence in downward relationships, that is in attempts by managers to persuade their subordinates (employees) to carry out requests (Yukl et al., 1996). The downward influence approach was used because it was considered the best for describing managers' work. The leadership mode (cf. Zander and Butler, 2010) applied by the managers in the organization of my study was single-team leadership (instead of shared or rotated team membership, for example). However, in a matrix organization people typically had two or more managers. This posed further challenges for the work of managers and their attempts to influence.

In this study I will explore how managers talk about their attempts to influence their virtual employees when managing them in everyday practices. By practices I mean repeated, rather stable and often jointly agreed customs that guide a virtual team's agenda. In addition, I will study what thresholds managers face and how they try to cross the thresholds, i.e. what kinds of influence tactics and strategies they use. The focus is not on testing the influence tactics or on comparing tactics in face-to-face environments and those in virtual environments, or on measuring the success of attempts to exert an influence. The research question is to observe how influence plays out in global virtual teams: what practices managers talk about when they attempt to influence their employees, what potential thresholds for exerting an influence they face in these practices, and what solutions and tactics they exert to cross the thresholds. By zooming into managers' descriptions on influence with virtual employees, my study will try to fill the gap of earlier studies by proving a better understanding of attempts by managers to exert an influence in virtual contexts.

5.1.3 Method

To address the research questions, I conducted a qualitative interview study in a European multinational operating in the technology sector. While the company is headquartered in Finland, it has a global network of subsidiaries and branches in more than 60 countries with 800 locations and 70,000 employees. The company operates under a matrix structure with seven geographical areas. Today, many global managers are still based in Finland but work at a distance with their global virtual teams. These teams typically consist of 5 to 15 members from for example China, the United States, India, Italy, France, Mexico, and Germany. The teams can be also described as "hybrid"; they were not entirely virtual as they occasionally worked face-to-face as well.

The 36 personal interviews representing 29 virtual team managers were conducted with team leaders and managers who occupied global managerial roles such as supply manager, vice president in technology, vice president of logistics, head of project management, and head of field and technical training. They were each responsible for one global virtual team. I used pseudonyms to protect their anonymity. Typically the employees had very different tenures in the team, some being managers for a short while, others for decades. In the interviews, the managers were asked to talk about their daily work, and describe their activities, practices, and potential challenges when working virtually. These themes were further developed and tailored depending on the managers' stories and their job role. In this study, I focus on the descriptions and experiences of managers in virtual interactions, attempts to influence (downward influence), and potential barriers or thresholds of influence. Most interviewees were Finnish males who were physically based in Finland. Eleven of the interviewed managers were women. The interviews averaged from 60 to 120 minutes, and excluding two interviews made in English, were conducted in Finnish in a company conference room, private office, or lunch restaurant.

Alongside traditional interviews and company documents, I draw on observation and field notes as data sources. For four years I observed the virtual work of managers on a daily basis and wrote notes about their work when they communicated with their global, virtual employees through various communication channels such as conference calls, email, videoconferencing, chats, Lync, Skype, live meetings, as well as face-to-face encounters.

In order to facilitate data analysis the interviews were recorded digitally and transcribed. After each interview the transcripts were read closely and the emerging themes were identified, which assisted in focusing subsequent data collection. This iterative process followed recommended practices for qualitative data analysis (Charmaz 2006; Coffey and Atkinson, 1996; Miles and Hubermann, 1994). Consistent with common coding techniques the data were coded according to codes given to the focus themes of the study.

In the early phase of the interviews, I asked my research participants to tell about their daily work in a virtual environment and potential opportunities and challenges. When they described their work, they talked extensively about leadership challenges and about the difficulties encountered in attempt to influence their employees virtually. Many informants considered that “influence itself was the biggest difference and challenge in virtual leadership”. Hence, I became particularly interested in influence as many of my informants described how they struggled to achieve it. They often pondered “how to influence people when you cannot see their body language, or their reactions, or how to know if they have understood the message”. They also explained that they typically tried to use the same influence methods as in traditional (face-to-face) communication, but found that they did not always work; the managers were unsure of the response and reactions of their employees. After identifying influence as a theme worthy of deeper examination, I decided to focus on why influence may be challenging in virtual contexts and how it plays out in virtual teams.

In this phase of my study, I explored what managers said about their daily work in greater depth. It was interesting to see from the data how extensively the managers talked about different practices, i.e. recurrent and rather permanent customs in their work. These practices were repetitive interactions which managers had created together with their employees to improve their cooperation, performance, and working environment. The practices were typically refined over time and improved if needed. The managers talked about different practices depending on the frequency, content, participants in the interactions, and the various situations faced in their daily work. My informants broadly described these practices and said that they were indeed important: to organize the virtual work, to keep in touch with people regularly, to follow up results, and to improve their managerial work. When I clustered my data according to these themes, I found that most typically, there were three kinds of practices: i.e. formal, informal, and "ad hoc" practices. The managers explained that they had a number of virtual interactions and practices every day; some of them were formal and structured and usually conducted with the whole team, others were more informal, typically between the manager and one employee, and dealing with everyday topics and spontaneous questions, issues, and emails. In addition to these, there were unexpected, urgent interactions, typically concerning "ad hoc" issues that demanded an immediate response.

When analyzing how managers talked about influence and why they argued that influence may be difficult to achieve, I learned that the success of their efforts was hindered by a variety of elements, i.e. obstacles or thresholds for virtual work. The managers told me about the thresholds for influence, such as technical problems, inattentiveness on the part of employees in virtual meetings, and misunderstandings in their communication. In addition, they often explained that they did not know their employees well enough and this hampered their efforts. According to my research participants, these thresholds appeared in all the above-mentioned practices, but seemed to vary depending on whether they were formal, informal, or ad hoc in nature.

The managers told me about their active search for solutions to cross obstacles to influence. For example, to overcome inattentiveness or the pressure of time, the managers devised systems, structures, and ground rules to improve virtual collaboration. They also talked about the various influence tactics and strategies they used to cross these obstacles. Furthermore, my data showed that the managers used different tactics in different practices, although some tactics were used in all practices. Hence, the need for a closer examination became obvious, in order to identity the tactics used by the managers in different practices.

During this stage of the data analysis, I coded the data based on how the managers described their work practices and how they described attempts to exert an influence in each practice. I placed the coded passages in matrix displays (in excel sheets) to monitor the internal cohesion of the codes and to tease out their relationships. The formats of the matrixes were driven by the earlier studies and the research questions of my study. At the same time, I verified the conclusions by seeking feedback from the interviewees (e.g. Miles and Huberman, 1994) with numerous calls and emails in which I sought to verify that I had understood what the managers meant. Thus the data were subjected to factual verification in meetings and other communication with company informants (Creswell and Miller, 2000). In these telephone calls or coffee meetings I received confirmation about the practices and learned more about the efforts of managers to exert an influence. It was fascinating to hear how committed they were to improve their work with virtual employees and how the practices truly seemed to help them.

Moving forward with my data, I iterated with different coding schemes until a clear, coherent set of categories emerged. The different practices formed a framework for analysis, and within these practices, I sought to explore the thresholds for influence, solutions for overcoming them, and the tactics and strategies typically used by my informants when they tried to influence their employees in a virtual environment. These themes will be used to analyze the data and the findings in the next section.

5.1.4 Findings

In the following sections, I will illustrate how managers of global virtual teams talk about influence in their managerial work. According to their descriptions, I have classified and arranged their talk and descriptions into the three categories: formal, informal and ad hoc practices. Although I will present examples of their remarks about efforts to exert influence, my aim is not to categorize all possible tactics or strategies identified in earlier studies (Wadsworth and Blanchard, 2015; Yukl, 2006). Instead, I will present examples of the tactics and strategies used by the managers of this study, particularly in a virtual context, and mentioned by them in the interviews. Overall, the managers emphasized that influence is different with virtual employees. According to them, the means and methods of influencing are limited, when non-verbal cues are missing and the managers try to influence their employees with written and electronically spoken messages alone.

5.1.4.1. Influence attempts in formal practices

Format and content of the practices

When the managers described their daily work and influence attempts in a virtual environment, they talked a lot about regular practices they had with their virtual employees. Typically these practices comprised structured, pre-planned, and formal meetings with their virtual teams. The meetings were booked according to the annual business schedule, usually one year ahead, for weekly, monthly, quarterly, and annual virtual meetings. These formal practices usually involved the entire virtual team, although some of them were also used in 1:1 meetings, such as quarterly follow-ups or annual performance reviews. The meetings included structured team processes such as status updates, schedule decisions, monitoring, and measuring results; some informants called these formal practices “maintenance practices”. A typical practice was to arrange a “monthly virtual round table” in which all participants in turn provided their status update. According to the managers, these regular meetings were important for securing active communication and coping with constant time pressure. These routines provided a regular opportunity to share information, and they helped the managers to make sure that all employees had the information and resources they needed to accomplish their goals and were able to communicate with their managers and team members. However, the structured format, the need for preparation and pre-work (for example sending all the materials to participants beforehand for comments) made work task-oriented and formal. Lisa, the director of the service development, described the need for regular practices and the difficulty of exerting a virtual influence as follows:

> *Virtual influence is more difficult, particularly with knowledge workers who want to participate in the decision-making…virtually, on the phone for example, it's difficult to transfer energy…I found out I need to create practices to follow up what people (employees) have done, the practices are kind of a toolbox for me. Without practices, I feel uncertain whether tasks have been completed. For example, we have a share point in which everything important is written, then weekly calls for follow-up. If we don't have these practices, the local topics fall to me and easily take all my available time, while distant cases and employees remain excluded. If I have to cancel one of our practices, for example a weekly meeting, I reschedule it immediately because it's very important for me to maintain these practices.*

Lisa also told me that these formal practices dominated her working days. The managers had several virtual meetings with different teams on a single day and they practically sat in their office "with the headset on" almost the whole day, as Rachel, a manager in the service business explained. According to the managers, the quality of these formal meetings was a constant focus for improvement and development. They also stressed the importance of building these practices and ground rules together with their team members, mainly to enhance their commitment. Andrew, the project manager, found this a powerful method for gaining commitment and explained it as follows:

> *We have a weekly call with my team members every Friday. This week we will discuss and focus on how to improve our communication, what kind of format is suitable for our practices and meetings. Earlier, we have used too much time on comparing the reports and just presenting different kind of data. We will now decide what kind of data is presented in the meetings and how we present it. I am continuously pondering how to lead these virtual meetings more effectively.*

Andrew's example demonstrates the efforts and the investment of time by managers to develop and improve their practices and thereby make virtual work better for everyone. Many other managers gave similar kind of examples of how they had created and tested new practices for their teams.

Thresholds for influence

My research participants told me that a typical threshold in formal practices was the pressure of time. Although use of formal practices ensured that time was reserved for communication, the lack of time was said to be among the biggest obstacles for influence. The significant part of all communication within the teams took place in virtual meetings. According to the managers, the agenda in these meetings was always long; there was not enough time for comments, feedback, or spontaneous discussion, and this made participants rather passive. This, in turn, resulted in potential misunderstandings, because team members could not ask or discuss unclear topics due to the lack of time. Although some time was taken for friendly chats or small talk, the schedule was typically structured, tight, and focused on acts. In addition, the number of formal meetings was on the rise, particularly when both managers and employees belonged to multiple teams and projects. The managers talked about "virtual work overload" which made influence more difficult because employees had overlapping meetings, could not participate in all of them and did not focus on the managers' agenda. James, the director of the development department, was unhappy with meetings which took too much time, especially when facilitated poorly. He also said that everyone had too many meetings which included only information sharing and passive listening:

> *I call it meeting pollution, having too many meetings which are ill-prepared and too long, they take too much time from other important things. We should minimize the time used for virtual meetings…*

The above example reveals another threshold to influence, identified and described by several managers of my study, namely the lack of attention. According to the interviews and observation, exerting an influence was particularly challenging in the "mass meetings" because everyone had too much virtual communication going on and competing requirements to meet. Mary, the chief information officer, explained how people who were physically present easily dominated the meetings and how easy it was to ignore or underestimate the people who were online. Attention was also limited because the virtual environment enabled working on multiple channels at the same time. Oliver, the department head, said that he had often seen situations in which people used four channels and devices simultaneously; they listened to a virtual meeting from the desk telephone, participated in a Lync discussion on their screen, read and wrote emails, and spoke to their wives on mobile telephones. One reason for the lack of attention was the communication technology, which frequently failed; technical problems were said to decrease team members' attention, which made it more difficult to exert an influence. Mary explained that moderators, who were usually missing, were important, somebody needed to moderate the meetings, check the technology, and follow the questions and answer them in the meetings. Many interviewees complained that connections frequently failed because the telephone lines or network did not work properly. This in turn, led to possible misunderstandings and made persuasion difficult. The lack of attention and non-functioning technology together contributed to less engagement and persuasion, as also described by Emily, the head of field training:

> *In virtual meetings, I can't see what my employees are doing and if they are focusing on our discussion at all. They might agree if I ask*

them, but afterwards I realize they are not committed at all to what we agreed, and have totally other thoughts and intentions in mind.

Solutions for crossing thresholds for influence

My informants actively attempted to find solutions for overcoming thresholds for influence. In the first place, most managers emphasized the importance of face-to-face meetings, which were said to increase opportunities for persuading employees in virtual work. However, in most cases face-to-face meetings took place rarely, typically 1 to 4 times a year. When the face-to-face encounters were not available, the managers looked for different actions, behaviors, strategies, and tactics to increase their ability to influence. In the formal practices, the managers seemed to use a wide range of influence tactics and strategies (identified by Yukl, 2010 and Wadsworth and Blanchard, 2015), although certain tactics and strategies were used more frequently than others.

In formal practices, the most typical influence tactic was rational persuasion. The managers told me that in the regular, formal virtual meetings, they primarily shared information and communicated facts. To make this information more reliable, logical arguments were used to support the facts; the managers tried to convince their employees by relying on factual evidence, which involved the use of explanation and ensured that all team members in different locations understood the message correctly (e.g. I carefully explain why we do this in Lync sessions). Given the global virtual environment, the managers needed to consider how to differentiate their communication and persuasion attempts with people from different cultural backgrounds. The managers talked about their attempts to ensure that the message got through to everyone and that all employees understood it similarly despite linguistic or cultural differences. Hence they provided hard facts and rational arguments with accurate explanations, and often in written format after the meetings (e.g. in mails or in SharePoint). Consequently, to complement the messy talk in virtual meetings, they tried to create accountability and improve mutual understanding, shared more information, and provided examples to help their employees (ambiguity reduction). David, the manager of the logistics department, described how he tried to adjust his influence attempts for different employees:

> *I usually prepare these virtual meetings carefully, I provide lots of facts, arguments and numbers. I have two different presentations, a separate presentation for Europeans and Americans, and another one for Asians. For Asian employees, communication needs to be clearer, I try to speak differently for Asians, not offensively…for British, for example, I can speak very directly…*

Another example of rational persuasion shows how James, the director of the R&D department, tried to strengthen his influence by rationalizing and simplifying communication:

The best way in terms of influencing (for example Chinese) is that they need to understand why we do this. They are effective people if the message is clear and communication down-to-earth. We should not resort to jargon or use a complicated communication style.

In addition to rational persuasion, the managers typically provided guidance and advice in the formal meetings (consultation tactic). For example, they advised their employees regarding current projects. When the team discussed the new project goals, the managers tried to explain the potential benefits for the employees, but expected their commitment and contribution in return (exchange tactic). William, a director in the global installation business, had 14 employees in different countries. He described the regular discussions with his virtual employees, e.g. the deals and incentives available and the expectations that his employees will support him in return. According to William, in virtual communication he must be clear and straightforward, and gain commitment without seeing the reactions of his employees. William described his tactics as follows:

But then, I say (to them), this is what you need, this is what you commit to, and (these things) you'll select, of these initiatives you will select an amount you need, to meet your end goals, and your targets. So, there's already an agreement amongst ourselves about the requirement, and the need, and we fulfil our part of them so we've given something. So the next thing is then to start, I gave you that, now I need something back, which is your commitment.

The typical working environment for my research participants was a matrix organization, which posed additional challenges for managerial work. Many managers said that exerting an influence was especially difficult in a matrix; there were many managers and different priorities, competing requirements, and commitments. The managers talked about frequent issues in which their goal as a global team manager was in conflict with the local manager's goal, for example in a local sales campaign where investments were needed but local managers wanted to cut costs in the local budget. My informants also explained that sometimes employees created "self-made", tailored processes at the local sites, and commitment to the global processes was weaker. In these cases virtual influence was difficult, and my informants told that they often needed support and aid from other people, for example their own managers or colleagues (coalition tactics). They included them to the cc-line in emails or invited them into conference calls. Coalition "partners" were sometimes also other team members, who strengthened the managers' message by offering, for instance, their best practices. Coalition tactics were also used as a mean to increase attention, typically in combination with other influence tactics, for example rational persuasion. Samuel, a supply service manager, described how he tried to influence his employees by justifying needs, involving coworkers, and offering benefits:

When we must implement big changes, the best way is to make it big. I mean building a big entity, with many stakeholders linked together, to *make employees realize that a big machine is now involved, and you need either to jump in or remain an outsider. You influence first with a regional (or local) manager, then with business line managers, make reports for them, help them, tell them this is a good thing… then the big mass provides the influence necessary to implement the change.*

To overcome the obstacle posed by a low level of attention, the managers had several ways to "keep employees awake" in virtual meetings. Particularly in the meetings with a large number of virtual participants, many people remained passive; they were virtually present but not actually. The managers tried to facilitate the meetings effectively, to make them shorter, and to increase interactivity. They also explained how they increased attendance with persistent reminders and by asking questions, using polls in the virtual meetings, chatting to share comments, and randomly calling the participants by name to ensure their attention (pressure).

To cross the various obstacles to influence, the managers also used influence strategies (Wadsworth and Blanchard, 2015). In formal practices, the most frequently used influence strategy was documenting communication. This was done to ensure that everybody saw the same information in a similar format and also to save time. Samuel, the supply service manager, tells how he developed practices with his team and how these practices improved influence and efficiency:

Collaboration tools like Lync and SharePoint workspace add transparency, not only knowledge sharing. We have made a significant improvement…to have all action plans and indicators in SharePoint lists, they are available faster, and they are more transparent for all. This (practice) has been a small, but significant change and difference. People are so busy that they don't search for information, we need to bring it to them…I always save the meeting material in SharePoint but also send email attachments, because we often read messages outside the network (from our mobile devices), for example when travelling.

In sum, in this section I have tried to illustrate how influence plays out in the work of managers in formal virtual interactions. Thresholds of influence (i.e. time pressure, team members' attention, misunderstandings, and technical problems,) were described as challenging prerequisites for initiating an influence process – thresholds that rarely exist in face-to-face efforts by manager to exert an influence in co-located settings. Table 6 summarizes the most common thresholds and frequently used influence tactics and strategies in formal practices.

Table 6. Influence thresholds and managers' solutions in formal practices

Content and format of the practice	Thresholds	Solutions: Frequently used influence tactics and strategies	
Structured, pre-planned and regular weekly, monthly, quarterly team meetings, telcos etc. **SharePoint documentation, discussion on social platforms**	**Time pressure** **Lack of attention (and competing requirements)** **Potential misunder-standings** **Technical problems**	**Influence tactics:**	**Examples from the data**
		Rational persuasion	*In virtual situations influence is difficult because people have 1600 priorities; you need to paint a picture and convince them why your priority is higher. You have to explain the background, have this link to our overall strategy, you have to explain that constantly, you have to take feedback and listen to that feedback. You don't always have to accept it but it's very important for this type of knowledge worker to understand that they've been listened to and their opinion counts.* (Brian)
		Consultation	*You need to help your people to prioritize; you need to see if they are on the wrong busses in this global work. You coach and encourage them and tell when to jump off the bus*. (Robert)
		Coalition	*I need to invite another manager (to the call), high enough, I introduce them myself, and then my team members know that I have contacts with these managers.* (Emily)
		Exchange	*There's already an agreement amongst ourselves on the requirement, and the need, and we fulfil our part of them so we've given something. So the next thing is then to start, I gave you that, now I need something back, which is your commitment*. (William)
		Pressure	*To keep them awake in the meetings, I play all kinds of tricks on them, like poll-questions...* (David)
		Ambiguity reduction	*We agreed the policies together, we shared information, we worked together actively in common project. I wanted to show them I am present no matter how busy I am.* (Mary)
		Influence strategy:	**Examples from the data**
		Documenting communication	*When you are not sure if you have been able to motivate and influence your employee, you need to create a formal practice to monitor. We share everything in SharePoint, we follow it up regularly…* (Lisa)

5.1.4.2. Influence attempts in informal practices

Format and content of the practices

Whereas formal practices were basically regular, preplanned, and structured team meetings, focusing on knowledge sharing and business follow-up, informal interactions and practices focused on daily or weekly communication. They were typically 1:1 calls, chats, meetings, or mails between the manager and the employee. Informal practices formed a substantial part of the interaction in which the interviewed managers took part as they managed virtual teams, including maintaining contact, checking daily matters, and building relationships. The managers told me that they typically contacted their virtual employees by telephone or Lync to ask about current topics and how various projects were progressing. They also wanted to keep in regular contact with their employees. These interactions were typically pre-planned weekly meetings and sometimes spontaneous calls. As an example, Luke, a manager in the global development function told that he has 1:1 meetings every week with all seven of his employees and that he schedules these meetings 12 months ahead to be sure there is time for them. These interactions were informal and unstructured, typically conducted without any agenda. It was interesting to learn that these informal interactions were often focused on building relationships and familiarity with team members.

Influence thresholds

The pressure of time was also seen as a major threshold for exerting influence in informal practices. Particularly the managers with big global teams told about the challenges of keeping in contact with all employees. A major obstacle in informal practices was that the managers did not know their employees well enough. They did not know how their employees reacted to their communication and behavior, or what was going on in their life. In virtual contexts, learning to know your employees took a longer time than in co-located environments. There were no encounters in office hallways or at coffee machines, no opportunities to ask about matters that arise on the spur of the moment. According to my research participants, they learned to know the employees who were physically in the same office much faster and better than their virtual employees. In addition, the co-located employees were usually more readily available for tasks and different needs, and easier to influence. Lisa, director of the service development, related an example on the ease provided by physical closeness:

> *When I sit in my office with the door open, people walk by and see me there; they easily come in and ask something. They have a chance to come and ask immediately when the problem is acute, they don't need to wait... I have also noted that they possibly don't want to make the issue too official with a phone call or mail, or they don't want to leave (a written) evidence in email...*

My interviewees further explained that as they could not influence their virtual employees by using strong "essence" or charisma when walking into their rooms, they needed to think of different approaches when contacting them virtually. Lack of familiarity was seen as a significant threshold for influence. The managers emphasized the importance of understanding the reactions and behavior of employees, to read their body language, and to avoid misunderstandings. They said "they need to see the influence in the eyes of their employees and whether and how the message has been received". According to them, nonverbal cues clearly facilitated "seeing the influence". Robert, who works in the maintenance organization, described this challenge as "a narrowed band width" and the lack of visual feedback:

Well, everything is a bit more difficult from a distance. When you don't see another person, when you don't have the direct link, you have the lane, you've got the phone sound and you don't get any visual feedback. The band width is narrower. Influence and the amount of feedback are smaller if you don't see the other person. The risk is even bigger if you are a weak leader. If you don't see how the employee reacts, you can't correct your message. And you always have a busy schedule and need to run for the next thing…

Many research participants said that long pauses in communication made them feel more distant and uncertain with their employees and even suspicious about what was going on. Hence regular practices helped them build connections as well as emotional ties and bonds of friendship with their employees.

Solutions for crossing thresholds for influence

It was interesting that influence attempts in these informal interactions were somewhat different from those in informal interactions. Regular communication, "keeping in touch", was said to support relationship building and increase familiarity. One of my informants emphasized the need to maintain regular contact with his virtual employees and explained how almost every morning he called his Asian employee on his way to the office and every evening to his American employee while driving back home. This practice helped him build trust, relationships and improve the prospects for influencing his employees. The managers talked about the tactics and strategies they used to cross the barriers to influence. They described their attempts to influence their employees by trying to learn to know them better, to build good relationships with them, and to help them (collaboration tactic). Moreover, they tried to build team spirit with occasional "get-togethers" to get their team members in a good mood, to celebrate successes or to reward employees with special thanks (ingratiation tactic). William, whose 14 employees all worked in different countries, described his influence attempts with his team members, whom he met rarely face-to-face. To enhance task commitment and good relationships, he tried to support his employees by coaching and advising them actively (consultation tactic) and by inspiring them with positive and motivational meetings (inspirational appeal). William explained his influence tactics as follows:

I will always, emotionally, try and make contact with the person so, number one, I will always ask them how they are. I will just probably revisit in my mind when I last met them, is there anything I remember about that visit where I can emotionally link with them...If I gave them a gift, (I ask) did you like it, or how is your wife doing, how was your Christmas holiday… I also try to help them in many ways...So therefore, your influence can be strong because you're seen as a mentor. But you're someone who helps them. So they feel that tie, and help you back. So the next thing is then to start, ok, I gave you that, now I need something back, what is your commitment?

Similarly, Luke, a manager in global development with a team of nine virtual employees, described daily coaching (consultation tactic) as an effective method for building relationships and influencing his virtual employees:

> *…coaching and support and then a clear agreement about what, what the priorities are and we need to repeat that together very often. In these weekly virtual meetings we will explicitly discuss escalations and then I will ask explicitly how I can support you in this escalation. 8 times out of 10, my report will say, I've got a proposal how to do this, and… then, times when they've such a clear idea, we'll brainstorm a bit, I'll do a little bit of coaching and for instance what we would often do then is agree, okay, I'll take it to the steering group and raise it as an issue…*

Luke's employees, who seldom met their manager and other team members face-to-face, had to carry out tasks at their sites independently. Luke said that his job was therefore to coach his employees particularly to manage themselves, to prioritize tasks, to implement the strategy, and to stay within the budget. Luke saw his role as a facilitator, but also as a coach who tried to support his employees actively.

Again, the research participants emphasized the need for face-to-face meetings to cross influence thresholds. In addition to the official agenda, these meetings usually had an informal agenda, such as team building activities. Particularly when the team was established or new members joined the team, face-to-face meeting were considered important. Samuel, the director of supply services, was recently assigned his new role and met his employees face-to-face, because he believed it would improve his ability to exert an influence later on:

> *…Influence has not been a big issue for me, but it's not going easy if people don't know you. When they get to know you, they become more active, the communication style will change. You know who is there, "behind the lines"; you get more comments, also proactively. Building relationships virtually in the first place doesn't work. In my new job I need to travel a lot in the beginning, to meet people, afterwards we can work by mail and phone.*

Similarly Sarah, an executive vice president, summarized the importance of familiarity:

> *Virtual work can work out only if you know your people, it's a must. It takes a long time but there are no quick wins. You need to meet your employees face-to-face, build relationship, and strengthen personal bonds and trust. It is nowadays easy to work with Richard, who is in Chicago, and Sophie, who is in Paris. When calling Sophie, I hear it from the very first sentence if something is wrong, if she is trying to hide something, or if she has something on her heart. But this is possible only because I have known her for a long time.*

In sum, according to the findings of this study, the most frequently used influence tactics in informal practices were collaboration, consultation, inspirational appeal, ingratiation, and ambiguity reduction. In addition to these above-mentioned major tactics, the managers used other tactics such as rational persuasion, but less often. The data also included a few examples of personal appeal, i.e. situations in which a manager can ask someone to do a task out of loyalty or friendship. All in all, the need to learn to know employees and to improve mutual understanding was often mentioned as the main goal and strategy in informal practices:

> *It's all about that you need to know the people and their background. (When you know them and) when actions are needed, you need to say that this must be done and I want you take this responsibility and the deadline is this... When you know the person you hear and feel how he reacts, and what feelings he has, you can also deduce how (the project) will start and succeed.*

This previous example, presented by Ryan, director of the distribution department, describes the influence strategy of building relationship. This strategy was extensively described by the research participants. According to them, knowing your employees and having a good relationship with them facilitated efforts to influence and contributed to success in virtual work. Table 7 summarizes the thresholds and typical influence tactics and strategies in informal practices.

Table 7. Influence thresholds and managers' solutions in informal practices

Content and format of the practice	**Thresholds**	**Solutions: frequently used influence tactics and strategies**	
Daily, weekly, monthly calls, chats, Lync-discussions, phone calls, typically 1:1 **Short emails, Lync-questions**	**Lack of familiarity** **Lack of time**	**Influence tactics:**	**Examples from the data**
		Collaboration	*I ask them to tell me how we can receive the target, I say please tell me what to write here, I try to listen to everybody, we work together, we accept together the targets, it has strong power...* (Jason)
		Consultation (share information and advice)	*In these weekly meetings we will explicitly discuss escalations …I will ask explicitly how I can support you in this escalation…I'll do a bit of coaching…* (Luke) *I remove all kind of barriers which hamper their working, I solve their problems, I coach them a lot.* (Mary)
		Inspirational appeal (get to know team members)	*I always, emotionally, try and make contact with the person so I will always ask them how they are. I will just probably revisit in my mind when I last met them, is there anything I remember about the visit that I can emotionally link with them.* (William)
		Ingratiation (invest time to create close relationship)	*If I remember they were on holiday, I would just say how was your holiday in Vietnam…juts getting the link back to when we were working together and there was a good connection.* (William)
		Exchange	*To be able to work virtually, we need to meet physically, 1:1, to do some kind of favor and get a favor in return.* (Andrew)
		Ambiguity reduction (share information, create accountability, provide examples)	*..in the weekly meeting, then we often agree (who does what), Kate will take it to the steering(meeting)…* (Luke) *I have used my own example, charisma, I have paid attention to my voice, I have avoided sounding busy, and I have got my own hands dirty…* (Emily)
		Influence strategy:	**Examples from the data**
		Building relationship	*I need to know my employees, to know how they react to certain things. Then virtual influence can be possible.* (Brandon) *The first year is some kind of romance, they don't know how serious I am, it takes time to stabilize the situation inside the team, I have worked hard (over the years) to make my employees feel that they belong to this team.* (Emily)

5.1.4.3. Influence attempts in ad hoc practices

Format and content of the practice

Despite careful preparation and established practices, both formal and informal, managers also talked about unexpected, urgent situations, surprises, where they had to use practices which were spontaneous, unprepared, and "ad hoc." I found it fascinating that influence tactics were different in ad hoc practices and categorized them as a separate practice for this study. These ad hoc situations included surprises, problems, crises, personal issues, or serious mistakes to which managers and teams needed to react immediately. Typically the managers made a telephone call or had a Lync chat to talk about the case. They also arranged urgent virtual meetings for the whole team, but found it challenging to find a suitable time for all team members as everyone's calendars were fully booked for weeks and months ahead. The goal of the influence and the way in which it was achieved differed according to whether the practices were informal or formal; there was a need to react fast. The managers explained that these unexpected, urgent situations were the most difficult for global virtual teams; the issue was often difficult and demanded immediate actions. Global work in different locations and time zones significantly added to the challenge.

Thresholds for influence

In ad hoc situations, getting the team members' attention and immediate commitment was described as critical. In ad hoc cases, receiving attention was often challenging because managers could not walk to the next room but needed to wait another 8 hours until the business day on the other side of the globe had begun. Different time zones, competing requirements, and local responsibilities hindered attempts by managers to influence. William, a manager in a global team, described that in urgent ad hoc cases the deadline was tight and fast commitment from his team members was needed. In these cases, collaboration among team members was also critical:

> *...and then you have to feel they are part of the team because when you do have a crisis, and you do have issues, it cannot be just you, orchestrating. The team also has to be self-motivating and self-supporting. So you should be able to say...I need you guys to work on it. And you need to be able to communicate and work together. But if they become so isolated within that team that they do not communicate with each other, you don't get the benefit of all those minds.*

William's description also says that in both formal and informal practices, the pressure of time was seen as a threshold for influence. In urgent cases, there was no time to travel to meet each other, no time to negotiate needs or responsibilities, no possibility for delay. Immediate actions were often needed, and my informants described these cases as difficult in a virtual environment.

Solutions for crossing thresholds

In ad hoc interactions and practices, the managers used direct orders, straightforward advice, and empowerment (pressure) to influence their employees. In exceptionally critical cases, for example customer complaints, the managers issued command, yet they said they normally did not want to. They told me that execution and clarity were emphasized in ad hoc practices; communication was short and clear. Various pressure tactics, i.e., threats, warnings, and assertive behavior such as repeated demands or persistent reminders to influence the person to do what the manager wanted, were described by the managers. There were fewer influence tactics in ad hoc approaches than in formal and informal practices. The difference in influence attempts in face-to-face and virtual communication was also small. According to the managers, in urgent ad hoc situations they needed to make their communication style more commanding in both face-to-face and virtual environments. Kevin, the vice president of a global business area, revealed that in urgent cases he used his personal power and authority to influence his virtual employees:

> *If we have crises, I need to use power to give a direct order…the message has to be communicated strongly and clearly. Last week we had a delivery risk, we had problems in receiving components; I had 20 people on the phone online. I had to outdo myself to get the message across. How to engage and get people to take responsibility then…? I use empowerment, I tell them to stop everything else, I emphasize there are no restrictions now… I try to communicate clearly, in plain English….*

Although pressure was described as a typical tactic in ad hoc, unexpected practices, many managers considered it an unsuccessful influence tactic, particularly with knowledge workers who appreciated participative leadership behavior. Several managers of the study argued against using pressure or threats, and also considered it more risky in a virtual context than in face-to-face interaction. The main reason for it was the lack of ability to see employees' reactions and non-verbal cues. In addition, non-verbal reactions were missing again and the general uncertainty was obvious. Lisa, the director of the service development, explained that there is also a clear difference depending on whether the goal of her influence attempts was short-term or long-term, and in long-term goals such as building team spirit, pressure and dictation never worked.

In ad hoc practices, engaging employees was considered crucial, as described by Luke, the manager of a global development team:

> *We're not digging holes, so you can't just say to someone, just do it because I told you to. You have to explain the background, have this link to our overall strategy, you have to explain that constantly, you have to take feedback and listen to that feedback. You don't always have to accept it but it's very important for this type of knowledge worker to understand that they've been listened to and their opinion counts. They don't always expect to be able to change something but at least they've been listened to.*

Brian, the head of a global function, explained that during his long career he had learned to avoid pressure as an influence tactic and also preferred rational persuasion in ad hoc practices:

Pressure does not work for most people. In a difficult situation I try to ask how he (my employee) understood the case and I ask him to explain it back to me. If I get nervous, everyone can hear it over the phone lines. When you are in a virtual situation and you need to influence your matrix employees who have 1600 other priorities and your priority is low on the list, I need to paint the picture first and explain to them carefully why my priority is the most important one.

In ad hoc, urgent interactions, influence was seen as more difficult and the most of the managers emphasized the necessity of face-to-face communication to influence employees. James, a manager in the R&D department, expressed it as follows:

Virtual influence is difficult in urgent situations. Think about communication, it is important how you look at somebody... if you think influence, what kind of contact you create with this person, many things like gestures don't show up in virtual situations. Emotions play a bigger role in conflict situations. It's important for me that we are then physically together, face-to-face, it gives me more tools and methods, I give first aid by phone, but to solve the conflict case properly, I prefer face-to-face.

The urgent cases demanded accurate information and fast reactions. Large virtual team meetings allow bringing a large number of participants online at the same time; this is not easy in the office. In these big virtual meetings, facts were communicated and questions asked, but there was usually no room or time for informal chat or personal matters. In addition, to support their employees, the managers put themselves on the front line and led by their own example. They also tried to improve accountability to clarify responsibilities and roles. Ryan, the director of the distribution department, told me that he handled difficult issues in 1:1 meetings and wanted to ensure the employee's commitment. However, he also preferred face-to-face meetings in these urgent, difficult situations:

In these cases, commitment needs to be done face-to-face, it creates a bond. We stare at each other. Face-to-face meetings also show my respect and the importance of the case.

In sum, the number of influence tactics was modest in ad hoc practices, and the managers described these influence situations as difficult. Again, close relationships with team members helped the managers attract their attention and secure commitment and this made it easier to exert an influence. In ad hoc interaction, familiarity was again raised as an important enabler of influence. According to one manager, "if you know your people well, you can trust their reactions in an urgent situation. You know they understand your challenge, urgency, and the importance of the case". All in all, the ad hoc practices differed from formal and informal practices as there was no predictability and yet the surprises were a significant part of managers' daily work. Given the single case and unexpected nature of ad hoc practices, influence strategies (long-term solutions) did not emerge from the data. The summary of thresholds and typical influence tactics in ad hoc practices is described in the Table 8.

Table 8. Influence thresholds and managers' solutions in ad hoc practices

Format and content of the practice	Thresholds	Solutions: the most typicalcinfluence tactics (IT) and strategies (IS)	
Ad hoc 1:1 calls, f2f visits, Lync-chat **Urgent team calls**	**Lack of commitment** **Lack of attention** **Time pressure**	**Influence tactics:**	**Examples from the data**
		Pressure	*…I have 20 people in the call, need them all at the same time, I need to use power to give direct orders, the message has to be communicated strongly and clearly…I use empowerment, I tell them to stop everything else, no restrictions…* (Kevin) *If we have a quality problem in the equipment, we need to fix it immediately, when there is urgency, I change my communication to direct management, I even give orders.* (Lisa)
		Rational persuasion	*In unexpected cases, too....you have to explain the background, have this link to overall strategy.* (Luke)
		Ambiguity reduction	*After these calls, I share all the material with everybody immediately, to clarify what's going on.* (Mary) *Everyone understood that this was serious, I sent mails, they sent back, everyone was informed.*(Ryan)

5.1.4.4. Summary of the findings and conclusions

The aim of this study was to determine how managers talk about their influence attempts with their virtual team members. Influence in managerial work can be approached in multiple ways, but I chose to view the topic in terms of the tactics and strategies used by managers in exerting an influence (downward influence). Although the managers themselves did not necessarily talk about specific tactics or strategies when speaking about influence, it was nevertheless interesting to review what tactics they used, how they used them in a virtual context, and how the tactics and strategies differed within their daily practices in virtual work. With limited possibilities for spontaneous interaction, the managers developed practices, group processes, structures, and rhythms for their work. Earlier literature has described the importance of team processes in virtual work (e.g. Martins et al., 2004), and it was fascinating to see how actively the managers worked to develop these processes and practices. According to them, the practices enabled sufficient time for communication, increased attention of the participants' on important topics, lessened the burden of management (cf. Zander and Butler, 2010), and improved relationships with employees.

The findings show that the managers devised and used three different kinds of practices, i.e. formal, informal, and ad hoc practices, when managing their virtual teams. In formal practices, the managers, together with their team members, developed routines, structures, and regular schedules for the team to follow up on projects, share information, and maintain contacts. With informal practices, the managers discussed everyday issues, built relationships, and tried to create a sense of connectivity. It was noteworthy that all communication by the managers took place in informal interaction. Informal interaction was found important in the early research of virtual teams: Saphiere (1996), for example, found that members of highly productive virtual teams communicated more often in informal, social ways than those in less productive teams. Similarly, Walther (1994) and Chidambaram (1996) reported the importance of informal communication. Finally, the methods used in ad hoc practices were different. Instead of being planned or commonly agreed on, they were reactions to unexpected, typically urgent situations, where managers needed fast commitment and attention from their employees.

Current research on global virtual teams discusses the limitations that electronic communication place on the work of managers, causing influence challenges and barriers, as technology cannot provide the same richness as face-to-face interactions (e.g. Hinds and Weisband, 2003). The findings of my study reveal that managers indeed faced several thresholds to influence virtually, and these thresholds differed in their practices. The pressure of time was seen as the threshold for influence in all practices. In formal practices, often mass virtual meetings, the most typical threshold for influence was lack of attention: the virtual work overload and overlapping meetings reduced engagement and attention on the part of employees. The results indicate that low familiarity was seen as a major threshold for influence particularly in informal practices: geographic distance was said to hinder the ability of managers to know the team members in person and thus. Low familiarity has been extensively demonstrated as a major challenge in virtual work (e.g. Elron and Vigoda-Gadot, 2006; Espinosa et al., 2007; Martins et al., 2004; Powell et al., 2004), as in-depth interactions among virtual team members are inhibited. According to the managers of my study, the lack of familiarity made their influence attempts and success more difficult, and therefore they put a lot of effort into building and maintaining relationships and trust with distant team members. Increased familiarity was said to lower the thresholds for exerting an influence, to accelerate task commitment, and to increase use of influence tactics. These findings are aligned with earlier studies on influence in virtual context (e.g. Elron and Vigoda-Gadot, 2006; Steizel and Rimbau-Gilabert, 2006; Wadsworth and Blanchard, 2015). Finally, a typical threshold was the lack of commitment in the ad hoc practices; the tasks were urgent, and the commitment of employees depended on their availability and willingness to react fast under the pressure of time. The matrix organization, including balancing between local and global requirements, significantly increased this challenge.

To cross the thresholds for influence, the managers devised and tested various solutions, i.e. tactics and strategies, for persuading their virtual employees. In the data, I observed 12 influence tactics (Wadsworth and Blanchard, 2015; Yukl, 2006). In each practice I observed the solutions of managers and explored which tactics or strategies were mentioned and used most frequently in any given solution. Some influence tactics seemed to be "anchors" that were used in almost all practices, for example rational persuasion and ambiguity reduction. However, it was interesting to recognize that different tactics dominated in different practices. My findings support the prior results (e.g. Martins et al., 2004; Cramton, 2001), according to which task-focused content often dominates in virtual collaboration and can make meetings formal. However, social and personal interactions were sought by both the managers and the employees of my study. According to my findings, the managers used harder tactics in formal practices, such as rational persuasion, coalition, and exchange. In informal practices the managers tried to acquire personal knowledge and learn to know their employees, and used softer influence tactics which aimed at building relationship, such as collaboration, consultation, inspirational appeal, and ingratiation. The choice of tactic seemed to depend on individual differences and the relationship between the manager and employee. A similar kind of dependence was also identified by Steizel and Rimbau-Gilabert (2013). Finally, in unexpected, ad hoc practices virtual influence was said to be most challenging, and the managers typically used hard tactics such as pressure to influence their employees. In ad hoc practices the variety of tactics was the smallest. Moreover, in addition to the tactics, the managers used influence strategies to gain long-term impact: building relationships and documenting communication. Building relationships was seen as a crucial strategy for increasing the scope for exerting an influence, particularly in informal practices, while documenting communication was used mainly in formal practices.

While earlier research on influence obviously assumes that managers know the employees personally, this is not always possible in global virtual teams. According to the managers of my study, a low level of familiarity clearly hindered their efforts to influence and the successful use of influence tactics. If the managers did not know the employees, they found it more challenging to arouse their enthusiasm for the task, for example, or to appeal to emotions (inspirational appeal). Further, without knowing their employees and their needs, it was more challenging to justify and prioritize tasks in order to arouse the interest of employees and secure commitment (rational persuasion, apprising, and exchange) or to utilize their interests (ingratiation). Moreover, the manager could not fully rely on the person, because the relationship was business-like (personal appeal). All in all, familiarity seemed to be an important prerequisite for exerting an influence; greater familiarity expanded the number of usable influence tactics and increased the success of influence attempts.

The findings of my study add to the rich body of literature of global virtual teams by voicing the talk of managers about their influence attempts to their virtual employees. Most of the earlier research on influence (e.g. Yukl et al., 1995) does not recognize how influence plays out in the work of managers in a virtual context. Prior studies have suggested, for example, that influence has to begin with warmth, which is said to be a conduit for influence (Cuddy et al., 2013). Warmth is said to include signals such as a nod, a smile, or another open gesture that helps managers connect with their employees and influence them. Given the absence of nonverbal signals in most virtual communication, virtual influence can be challenging. How can warmth be expressed virtually by smiling, standing openly, or with friendly body language, as advised by earlier scholars (e.g. Cuddy et al., 2013)? According to my findings, when non-verbal cues were missing or when there was no eye-contact, it was challenging for the managers to transfer energy, motivate their people, and show their passion, all of which are needed for successful influence. However, the managers saw that virtual communication does not hinder use of influence tactics, while it does makes it different and requires commonly agreed practices and team processes for interaction.

Finally, when managing global virtual teams, the managers worked actively to search and create solutions to manage their teams and employees better and to remove the thresholds for influence. They found ways to use personal charisma and show virtual presence and availability. These attempts were important additions to influence tactics, and have been rarely identified in the existing literature on virtual influence. My findings indicate that the managers are truly active "problem solvers" in their everyday work, and with the recurrent practices and ambition to develop new solutions, they built strong enablers for virtual influence.

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5.2 Dynamics of trust and commitment in global virtual teams

Abstract

Trust and commitment are essential elements in global virtual teams, in which managers operate in a fast-paced, hectic environment where face-to-face encounters with employees are rare. Previous research on virtual teams has typically suggested that trust is a prerequisite for gaining the commitment of employees. Based on a qualitative interview study of 36 interviews, this study proposes that trust and commitment in virtual contexts are related and entangled with each other in more complex ways. Trust is generally needed to gain commitment, but with limited time and virtual collaboration, commitment to make company goals is needed to obtain trust. My analysis suggests that in virtual contexts, commitment is needed regardless of whether there is trust, and hence trust cannot be seen as an absolute prerequisite or instrument for commitment.

5.2.1 Introduction

As organizations have become global and decentralized, geographically and organizationally distributed work has become common. In response to the challenge of globalization and increasing customer demands, the volume of virtual work is increasing rapidly in all kind of organizations. Global multicultural team environments differ in many aspects from those of co-located, culturally homogenous teams, and thus represent a complex and dynamic environment (Gibson and Gibbs, 2006). Global virtual teams are geographically dispersed and culturally diverse and work together using communication technology (e.g. Stanko and Gibson, 2009; Zander et al., 2012). It has been suggested that trust and commitment, as the most important and challenging elements in global virtual teams (e.g. Mackenzie, 2010; Mockaitis et al., 2012; Sarker et al., 2011), play a crucial role in the functioning and performance of virtual teams (Henttonen and Blomqvist, 2005; Joshi et al., 2009) when team members work across temporal and spatial boundaries, often in the absence of face-to-face interaction.

Although there is already a rich body of studies on global virtual teams, research on the work of managers in virtual teams is lagging behind (Kelley and Kelloway, 2012; Pinjani and Palvia, 2013; Zander et al., 2012). Similarly, despite increasing interest in trust in virtual work (see reviews in e.g. DasGupta, 2011; Gilson et al., 2015), it remains a question mark (Crisp and Jarvenpaa, 2012) and researchers call for more studies on trust in virtual teams (e.g. Sarker et al., 2011). Trust is often seen as the glue that sustains virtual teams (Brown et al., 2004) and as an instrument to secure commitment or performance (Henttonen and Blomqvist, 2005; Verburg et al., 2013; Wilson et al., 2006). Most earlier studies on trust and commitment focus on how they are built and developed in virtual teams (e.g. Clark et al., 2010; Jarvenpaa and Leidner, 1999;) and show trust as a prerequisite for team performance and positive influence on it (Aubert and Kelsey, 2003; Jarvenpaa et al., 1998). But the findings have been rather homogenous, describing trust as a condition and enabler of commitment and the functioning of virtual teams. However, trust may be a more complex and ambiguous element for global virtual teams where the work of managers is becoming more demanding and difficult because of the fast pace of business over cultural and national borders, the lack of non-verbal communication, and the dearth of opportunities for face-to-face interaction.

Most earlier studies on trust and commitment in virtual teams have been quantitative (e.g. Crisp and Jarvenpaa, 2012; Golden and Veiga, 2008; Joshi et al., 2009; Luther and Bruckmann, 2010; Sarker et al., 2011). As organizations are becoming more complex, more in-depth understanding of how organizations and people operate in a fast-changing virtual environment is needed. Hence qualitative research, a rich, in-depth understanding of trust and how it emerges in virtual teams, particularly in relation to other important elements such as commitment, is needed. Listening to actors' own descriptions and interpretations of how they talk about trust and commitment will help us to delve more deeply into the virtual work of managers. Moreover, in the temporary, short-lived organizational structures or project teams on which most of the studies thus far conducted have focused (e.g. Crisp and Jarvenpaa, 2012; Crossman and Lee-Kelley, 2004; Verburg et al., 2013), trust seemed to be established rapidly, fragile, and temporary. However, in current global organizations most virtual teams operate on a long-term or often permanent basis and despite occasional turnover in members, in rather similar settings for years.

In keeping with the existing research in global virtual teams, I argue that trust in virtual environments is a fundamental and ambiguous element in leading global virtual teams. Similarly, current practitioner discussion emphasizes the importance and challenge of building trust in a virtual context (e.g. Ferrazzi, 2012; Henttonen and Blomqvist, 2005). I have explored trust in a new setting in this study, focusing particularly on how trust plays out in the work and interactions of managers and in relation to the commitment of team members. Commitment in this study means the accountability, engagement, and willingness of team members to commit to work and deliver what has been agreed, i.e. goals, tasks, and responsibilities. Generally, managers need the commitment of their employees to ensure that company goals and business results are achieved.

The contribution of this paper is to show how trust and commitment relate to each other in virtual contexts. Instead of looking for direct sequences, e.g. trust building to precede commitment or as a means to gain it (e.g. Sarker et al., 2011), this study will explore the dynamics and potential multidimensional relationships between trust and commitment. The empirical data for the study were generated in 36 interviews in a Finland-based multinational corporation operating in the high-tech sector. In addition, field data were gathered in the company for over four years by observing, listening to virtual meetings and calls, training managers, and gathering experiences on virtual work in the role of employee, manager, and trainer.

The next section will present an overview of the literature on trust and commitment in virtual contexts, summarizing the major findings of the earlier studies. This is followed by descriptions of the setting for the empirical study and the research method: how the empirical, qualitative data have been collected and analyzed. The results section will present the major findings of the study, and the paper concludes with a discussion of the findings, implications of the study, and suggestions for future research.

5.2.2 Earlier literature on trust and commitment in global virtual teams

5.2.2.1. Global virtual teams

Virtual teams where various groups of people work together, share common organizational goals, and are linked together through technology have become commonplace (e.g. Davis and Scaffidi, 2007). Global virtual teams work across time and space as well as organizational and cultural boundaries. They can be defined as groups of people who (1) work together using communications technology, (2) are distributed across space, (3) are responsible for joint outcomes, (4) work on strategic or technically advanced tasks, and (5) are multifunctional and/or multicultural (Jonsen et al., 2012; Zander et al., 2012). Moreover, global virtual team members typically work in matrix organizations, i.e. they have multiple reporting lines. This means that leading global virtual teams is potentially more difficult than leading conventional teams, because it also requires collaboration and commitment with people to whom the manager does not have direct reporting lines. In addition, team members in global virtual teams come often from different cultural backgrounds, which may pose unique challenges to the work of their managers.

5.2.2.2. Building trust in global virtual teams

The recent research highlights the challenges of global virtual teams through several themes such as performance, collaboration, and technology. Two components and themes have consistently emerged in the earlier literature: trust (e.g. Hill et al., 2009; Maley and Moeller, 2012; Pinjani and Palvia, 2013; Wang and Emurian, 2005), and commitment (e.g. Crossman and Lee-Kelley, 2004; Golden and Veiga, 2008; Hertel et al., 2005; Jacobs, 2006). Although some scholars (e.g. Gilson at al., 2015) argue that trust has been one of the most frequent topics in studies on virtual teams in the past decade, researchers on virtual teams call for new, different approaches and particularly qualitative data.

In addition to the various benefits and opportunities virtual collaboration can offer, the major disadvantages of global virtual teams are the lack of physical interaction and synergies that often accompany face-to-face communication. These deficiencies raise issues of trust. Trust generally means reliance on another person or entity. In a team context it has been defined as the degree of confidence of team members in one another (e.g. Pinjani and Palvia, 2013). Trust is usually seen as the outcome of a process, i.e. trust relationships develop gradually. Further, trust-building is regarded as a self-enforcing process; trust creates trust and distrust creates distrust (e.g. Blomqvist, 1997). Trust is also known to be fragile; it is difficult to initiate, slow to build, hard to regain, and always easy to destroy (Martins, 2002; Pauleen, 2004).

Trust has been identified as the fundamental issue in understanding the effectiveness of virtual, distributed teams (e.g. DeSanctis and Poole, 1997; Handy, 1995). It is generally presumed to be easier to generate and sustain when people are spatially clustered and physically close to each other. In addition, conventional wisdom assumes that trust develops from a history of communication and interaction through which people learn to know one another (Greenberg et al., 2007). Earlier research on virtual teams shows that communication positively impacts trust in virtual context (e.g. Jarvenpaa and Leidner, 1999; Sarker et al., 2011). Virtual communication may, however, obscure cues that transfer trust, warmth, attentiveness, and other interpersonal affections (Jarvenpaa et al., 1998). Compared with face-to-face interaction, global virtual team members find it hard to establish trust particularly in a new working relationship; it is difficult to assess the trustworthiness of teammates if you have not met them (Pinjani and Palvia, 2013). Trust is known to develop most effectively as a result of shared experiences and a rich interaction context that allows deeper interface and interdependence. The challenge for virtual, distributed, global team is therefore how to facilitate such experiences over distance (Zander et al., 2012). Similarly, showing up in person demonstrates commitment, which in turn facilitates trust and collaboration (e.g. Kiriakos, 2010). The importance of trust as the foundation for performance has also been stressed in the literature on virtual work (e.g. Chen et al., 2011, Joshi et al., 2009; Jarvenpaa and Leidner, 1999; Symons, 2003). The lack of face-to-face interaction makes it difficult for managers to observe and monitor the behavior and actions of others and managers and the members of virtual teams need to be sure that all others will fulfill their obligations and behave in a consistent, predictable manner (e.g. Hunsaker and Hunsaker, 2008). Furthermore, the managers of virtual teams do not have the benefit of being able to observe when a team is becoming sluggish or when it needs a social event to rebuild momentum or a special focus and direction (Malhotra et al., 2008) that may impact the performance.

Trust provides a form of social bond that allows employees to work effectively together (Gibson and Cohen, 2003; Jarvenpaa and Leidner, 1999; Zolin et al., 2004). There is general agreement among scholars that virtual teams are vulnerable when team members are unfamiliar with one another. In co-located environments it is easier to build and sustain relationships and observe the motivation and trustworthiness of members (e.g. Symons and Stenzel, 2007). Henttonen and Blomqvist (2005), for example, emphasize the importance of familiarity in virtual teams and found that the better people knew each other the more relational communication they had. They also remind us that the role and timing of face-to-face meetings are important for development of trust (see also Crossman and Lee-Kelley, 2004; Hart and McLeod, 2002; Coutu, 1998).

Trust in virtual teams is often based on action rather than goodwill (Clark et al., 2010; Jarvenpaa and Leidner, 1999). According to the study of Malhotra et al. (2007), virtual teams struggle because they lack a common set of procedures or way of doing things. In their study, the leaders of the most effective virtual teams developed a virtual sense when reenergizing was needed. They were sensitive to clues such as lapses in participation. Making explicit task progress based on agreed-upon timelines also helped to create trust. (Malhotra et al., 2007) Processes, practices, and routines are known to be important for virtual teams, not only in building trust, but also in ensuring that all team members have regular meeting points and an opportunity to update the status of business and team work.

Research on trust in virtual contexts presents a variety of views on the stability of trust. Jarvenpaa and Leidner (1999) report on a series of descriptive case studies in global virtual teams whose members were separated by location and culture and challenged by a common collaborative project. Their results suggest that global virtual teams may experience a form of swift or fast trust, which appears to be very fragile and temporary. Also, Symons and Stenzel (2007) remind us that trust in virtual teams is fragile and difficult to maintain; building trust in a virtual context takes time and can be destroyed irrevocably in a careless moment. Zolin and his colleagues (2004) offer a different view of the nature or duration of trust in global virtual teams. In their study, they show that trust can be relatively stable over time and that initial perceptions of trustworthiness are particularly important in virtual teams. In most current global virtual teams, which operate on a permanent basis, rapid trust is not adequate. Instead, it is important to build long-term trust, sustainable trust.

In their later studies, Crisp and Jarvenpaa (2012) return to explore and conceptualize trust in virtual teams, which is established rapidly, and report that it involves cognitive processes emphasizing belief in the other party's capability, reliability, and dependability in the pursuit of a joint goal (commitment). In addition to cognitive components, Crisp and Jarvenpaa (2012) present the components of normative action that reinforce trust with an active interaction style. Such interaction may comprise practices pursued by managers to improve the commitment and performance of their global virtual teams.

Cultivating trust is one of the most critical success factors for any virtual team, but particularly for global, distributed teams, which are composed of people from different cultures. Geographic distance brings with it differences in national cultures, time zones, and work contexts that may hinder development of shared interpretations (Olson and Olson, 2000). Earlier research suggests that people from different national cultures may generally vary in their willingness to trust one another (Gunia et al., 2010). In their study of 59 global virtual teams, Mockaitis et al. (2012) found that development of trust in virtual contexts is related to culture; teams whose membership is more collective in nature tend to report more positive evaluations of trust. Different socio-economic environments, disciplinary perspectives, cultural assumptions about social interaction, and hierarchy constitute significant barriers to development of trust. In addition, there is some evidence that problems within distributed groups are due to the creation of stereotypes about people from other countries and subsequent distrust of foreign colleagues (e.g. Cascio, 2000).

Similarly, Zolin and her colleagues (2004) studied interpersonal trust in geographically distributed work and found that cultural diversity has been associated with lower perceived trustworthiness, which in global virtual teams is more difficult and time-consuming to evaluate accurately. They suggest that this may be the result of cultural misunderstandings rather than prejudices; "the greater the cultural diversity on cross-functional, distributed work, the more fragile the trust" (Zolin et al., 2004, 20). In addition, according to their study, employees in global virtual teams may rely on early impressions of perceived trustworthiness when evaluating how distant partners perform tasks because reliable information about follow-through is lacking or difficult to interpret. This study focuses on interpersonal trust, i.e. "the extent to which a person is confident in, and willing to act on the basis of, the words, actions, and decisions of another" (McAllister, 1995, 25) and particularly on managers' trust on their employees. In virtual teams, managers need to trust and count on team members to fulfill their commitments. For example, some people may verbally agree with the commitments but fail to carry them out. In co-located teams with frequent face-to-face encounters managers may detect this more rapidly. In addition, people may regard punctuality differently and concepts of time may be different. These elements demonstrate that it is relevant and interesting to study how trust and commitment play together in the work of managers in global virtual teams.

5.2.2.3. Commitment in global virtual teams

Researchers have suggested that commitment and trust are not just important elements in global virtual teams, but also the key mechanisms by which employees can cross physical distance and work towards accomplishing shared team goals and enhancing team effectiveness (Fiol and O'Connor, 2005; Hinds and Mortensen, 2005; Joshi et al., 2009; Wilson et al., 2006). To achieve the goals and objectives of the company, people need to be committed to their work and to the company. Commitment is similar to employee engagement; engaged employees are absorbed by and enthusiastic about their work and thus take positive action to further the organization's reputation and interests (e.g. Shuck and Wollard, 2010). According to Meyer and Herscovitch (2001), commitment is a force that binds an individual to a course of action of relevance to one or more targets. Klein and his colleagues (2012) propose that commitment is one of a variety of bonds or attachments that a person can develop in the workplace.

Commitment becomes a critical element in virtual environments because managers need to secure commitment and task reliance from their employees without face-to-face contact, or even without being able to communicate with them about ongoing tasks. Commitment is more difficult to gain when team members are dispersed, meet rarely, and work independently in different locations. The prevalent view of virtual relationships is that commitment requires at least some physical contact and effective support systems (e.g. Crossman and Lee-Kelley, 2004). For managers, employee commitment is critical to team success and performance. Powell et al. (2004) determined the antecedents to commitment and trust in virtual teams and compared how they differ between face-to-face and virtual teams. Using survey data from 52 teams, they found that the efforts of members are significantly related to trust among co-located team members but not among virtual team members. In addition, virtual teams had stronger relationships between work processes and trust and between trust and effective commitment. Among others, they call for more research to understand commitment in virtual work.

Golden and Veiga (2008) examined how working in a virtual mode alters the impact of superior-subordinate relationships on important work outcomes. The impact of this relationship was significantly affected by the extent of virtual work, demonstrating the important roles of supervisory relationships in determining the commitment, job satisfaction, and performance of virtual workers. In terms of organizational commitment, their findings suggest that there is an organizational upside and downside to extensive virtual work. On the upside, individuals who work extensively in a virtual mode and have high-quality relationships with their managers are likely to demonstrate significantly higher levels of organizational commitment. However, for those who have a low-quality exchange relationship, the downside of extensive virtual work is a significant reduction in commitment (Golden and Veiga, 2008). According to Jacobs (2006), management practices form a sense of organizational attachment. The communication options in their study of a remote team of teleworkers were limited not only by distance and reduced frequency, but also by wide variations in work schedules, job locations, and client environments. His findings suggest that virtual communication is not necessarily a key to the development and maintenance of commitment (Jacobs, 2006).

Cultural differences may influence how team members attach to, commit, and identify with one another within their virtual teams. Au and Marks (2012) studied identity in culturally diverse virtual teams and found that employees regard adapting to culturally unfamiliar behaviors and attitudes as difficult. Consequently, this resulted in failure to reach agreement within the team. Differences in working cultures led also to unhealthy racial and national stereotypes. In their empirical study, the employees said that both differences in working practices and language barriers prevented employees from identifying with the virtual teams. Their findings demonstrate that the stereotypes formed among virtual team members often reflected the worst extremes of national stereotypes. (Au and Marks, 2012) Also, Symons and Stenzel (2007) studied virtual teaming and culture and found potential cross-cultural conflict areas in virtual teams caused by differences in levels of commitment and responsiveness. Commitment seems to vary across cultures; in some cultures "virtual commitment" to the task or project is easier. In addition, there were differences depending on how competent and used the employees were to virtual work and making agreements virtually. (Symons and Stenzel, 2007)

Furthermore, the findings of a study by Crossman and Lee-Kelley (2004) indicate that commitment in virtual teams is an important enabler of trust as a basis for longer-term partnership. They also show that while low commitment from the organization to the individual leads to low trust and team effectiveness is inhibited, organizational efficiency in dispersed teams requires a high level of mutual commitment and trust. They emphasize that commitment is central to psychological understanding within the organization and between the manager and individual employees. In addition, cultural background, socials norms, values, and underlying behavioral assumptions derived from a shared cultural history also impact the commitment of virtual team members, who all carry their past with them (Crossman and Lee-Kelley, 2004).

Global virtual managers typically work in matrix organizations and have a number of virtual teams to lead. Similarly, team members may belong to several teams and have several commitments in various projects. Furthermore, virtual team members often have responsibilities in their local organizations and then other commitments in their global virtual teams. This may contribute to uncertainty regarding roles and responsibilities and challenge the task compliance. Virtual team managers may face additional challenges in competing and fighting for the commitment of each team member to the virtual project, given the local demands for their special expertise (Malhotra et al., 2007).

In my study, commitment means dedication on the part of employees in completing their tasks and reaching their goals. It means taking responsibility for actions, meeting deadlines, and getting things done. In virtual teams strong commitment is potentially more important than in co-located teams because each team member's success is his or her contribution to the team's efforts. Without visual cues that tell whether a team member is actively engaged in a task at a given time, virtual teams rely heavily on comparison of results (e.g. Zofi, 2012). In my study, commitment is observed in relation to trust in order to describe the kind of dynamics at work between trust and commitment. The approach takes the perspective of managers, i.e. how they talk about commitment, how they try to build commitment and trust in their teams, and how they see commitment in their interaction with employees.

5.2.2.4. Summary of the earlier literature and the research gap

Almost all literature on global virtual teams stresses the importance of trust as the foundation for performance in a virtual environment (e.g. Jarvenpaa and Leidner, 1999; Symons and Stenzel, 2007). Moreover, trust and commitment have been described as critical challenges in the work of managers (e.g. Gilson et al., 2015; Joshi et al., 2009; Zander et al., 2012). Previous studies have described the prerequisites and antecedents of trust and commitment and how they are developed in virtual teams. In most cases trust and commitment have been described as separate elements, or trust as an instrument and mediator to secure commitment (e.g. Crossman and Lee-Kelley, 2004; Henttonen and Blomqvist, 2005; Verburg et al., 2013). According to these studies, reciprocal commitment cannot be achieved without the establishment of mutual trust. Similarly, trust building is said to be based on a common belief that individuals will act in good faith to fulfil commitments (Crossman and Lee-Kelley, 2004). In addition, prior work presents a cause-effect relationship with trust typically being the precondition for gaining the commitment of team members and ensuring their accountability. A strong sense of trust has been said to help cross the lack of commitment in virtual teams (Clark et al., 2010) and a trusting relationship between team members and managers helps the team to concentrate on their tasks and responsibilities (Stoner and Hartman, 2000).

Given the rare opportunities for frequent interaction and relationship building in virtual contexts, the relation between trust and commitment may be different from that in face-to-face contexts. Time may be more limited and the pace of work more hectic because communication occurs in almost real-time. Due to multiple tasks and teams, the sequence of events may also be ambiguous and different from that in face-to-face contact. I argue that while describing the factors, conditions, and sequence of trust and commitment, the picture given by prior research is too linear and unilateral. Hence I aim to supplement this picture by illustrating how managers talk about trust and commitment and to provide new insights into the relationship between them with rich qualitative data from global virtual teams.

5.2.3 Method

My research consists of a qualitative interview study of a Finnish multinational operating in the technology sector. While the company is headquartered in Finland, it has a global network of subsidiaries and branches in more than 60 countries with 800 locations and 70,000 employees. It operates under a matrix structure with seven geographical areas. Today, many managers are based in Finland, but work over distance with their global virtual teams. These teams typically consist of more than 10 members, for example from China, India, the United States, Italy, Finland, France, Mexico, and Germany.

This study used a qualitative interview approach that draws on interviews, observations, and company documents. I made observations and took field notes about my colleagues' daily work by following their interaction with their employees through various communication channels such as conference calls, email, videoconferencing, chats, Lync, Skype, live meetings, and face-to-face interaction. As part of my work, I introduced competence development programs for global managers such as general leadership training and virtual team training and facilitated leadership development programs in several countries.

In a total of 36 personal interviews, my main focus was to understand how trust and commitment appear in the work of the managers who were each responsible for one global virtual team. The interviewees served in capacities such as supply manager, vice president for technology, vice president for logistics, head of project management, and head of field and technical training. The informants were selected with the help of the headquarters HR function and managers and focused on managers who had global, distributed teams with a variety of set-ups. Interviews were conducted with both experienced senior managers such as vice presidents and with middle managers and team leaders. All managers had a global team. As the focus was on the talk of managers, I had the opportunity to listen to the multiple retrospective stories of virtual work from various perspectives and this approach has truly enriched my study. Each manager had from two to 15 employees reporting to them; employees typically had very different tenures in the team, some being managers of the team for a short while and others for years. The majority of the interviewees were Finnish males who were physically based in Finland. Eleven of the interviewed managers were women. To protect anonymity, all names are pseudonyms. The interviews averaged between 60 and 90 minutes, and excluding two made in English, the interviews were conducted in Finnish in a company conference room, private office, or lunch restaurant.

The approach of my study can be characterized as an iterative research process, as my study has proceeded like a rotating chain; I started with theoretical findings after which I made the first empirical observations and pilot interviews. I then went back to study theory and literature, and continued again with more empirical studies. This was repeated several times with the aim of understanding the phenomenon as deeply as possible.

In the interviews, the managers were asked to talk about their daily work, to describe their activities and practices when working with their global virtual teams. These themes were further developed and tailored depending on the stories of the managers and their job role. In the interviews I wanted to give the research participants an opportunity to describe their work freely and asked them to tell about everyday work with their virtual teams. I asked questions about their challenges and daily practices, but did not control or lead the discussion in any direction. I soon found that most managers talked about trust and commitment when describing their leadership work in virtual teams, and I started to view these elements more carefully.

In order to facilitate data analysis the interviews were digitally recorded and transcribed. After each interview the transcripts were read and the emerging themes identified. This assisted in focusing the subsequent efforts of data collection. This iterative process follows recommended practices for constructivist qualitative data analysis (Charmaz, 2006; Coffey and Atkinson, 1996). When exploring the interview transcripts, I searched for descriptions about trust and commitment and particularly about the relationship between them, and found that in most interviews trust and commitment emerged together in various ways. The managers talked about trust and commitment together, and it was obvious that they were not able to separate them from each other. Data analysis was an iterative process and the data were coded according to when trust and commitment appeared together in the managers' talk. This focused coding helped me to synthetize and to explain how trust and commitment are related to each other and how they play out in the work of managers in virtual teams.

In the next phase of analyzing the data, I clustered the quotations in which managers talked about trust and commitment together, according to the themes which the managers talked about. In discussing trust and commitment, they frequently described the need to achieve goals, the managerial practices and procedures they had created, and the "cultural challenges" confronted in building trust and commitment in their teams. In this phase I arranged the data according to these three themes. The data were then subjected to factual verification in meetings and other communication with company informants (Creswell and Miller, 2000). After coding I wanted to obtain verification for some findings and asked the research participants supplementary questions. In this phase I mailed or called several of the managers interviewed to check whether I had understood the information correctly and asked further questions. In addition, the interview data were supplemented with participant observations gathered over several years, including notes from virtual meetings, notes from the discussions with the managers, and observations and training material compiled in notebooks and electronically.

When analyzing and coding the data and looking for talk by managers about trust and commitment, particularly the relationship between them, I found a number of situations where managers talked about trust and commitment as confusing and entangled elements. Trust and commitment often emerged in their stories and descriptions, but not as structured and separate elements or in cause and effect relationships, but entangled instead in many ways. The relationship between trust and commitment and the occurrence of them seemed ambiguous for the managers and it became fascinating to study them in greater depth.

5.2.4 Findings

In this section I will present the findings and insights on talk by managers about trust and commitment as they emerged from the data. In the managers' work, the relationship between trust and commitment seemed to appear in multiple ways. The findings show that managers frequently raised and highlighted certain themes, i.e. business targets, managerial practices, and cultural challenges, when they talked about their attempts to build trust and commitment in their teams. First, the managers need employee commitment to achieve business goals. Second, to build trust and secure better commitment, managers create practices and activities to organize their work, improve collaboration, and increase effectiveness. Third, cultural differences challenge managers' trust-building attempts, and they explain the difficulties confronted in building trust and commitment with cultural challenges.

5.2.4.1. Strategic goals of the company: walking on a tightrope

According to my research participants, the ultimate objective in the work of managers is to achieve business goals. In the company where the managers worked, strategy was built on five "must-win-battles," strategic targets that had to be won to achieve key objectives (Killing et al., 2006). The top management of the company communicated these five main goals (the must-win-battles) thoroughly and followed them up regularly during the year. Company goals were broken down into team goals and then individual targets. Explicit and clearly articulated strategies, goals, and metrics are generally important for all employees, but particularly for virtual teams as daily conversations, check-ups, or spontaneous discussions and questions in the office are not possible. Employee commitment to company strategy and values is considered crucial for performance and success. Moreover, employee engagement, measured in the annual global employee survey, is a significant performance indicator followed regularly by the CEO and the top management of the company.

In my data, most of the managers talked extensively about the importance of trust and commitment in virtual work, emphasizing that they are among the greatest challenges faced in managing virtual teams. I found it intriguing that trust was one of the first things they mentioned in talking about their daily work in a virtual environment. They stressed that a need for "eye-ball management," i.e. observing their people physically, or a general suspicion that employees are not reliable, are not the issue. However, they did refer to uncertainty about whether employees were committed and how they performed, whether they did what has been agreed, and whether the goals were achieved: "we cannot see from the employees' eyes whether they are committed", as summarized by Jason, a project manager. Similarly, the managers said that communication in a virtual environment was thin as nonverbal cues were missing. Ashley, the maintenance director, said that she could not build trust and commitment virtually; to build trust, face-to-face connections were necessary:

> *You cannot manage your people at all if you have never seen them physically, why, to build trust, trust is everything, you start to build [a] relationship by meeting your people face-to-face. To be able to trust and understand my employees I need to see their body language.*

The managers told me of their persistent aspirations to build trust and commitment with team members. They emphasized that they generally expected their employees to be trustworthy. Commitment was seen as a premise for cooperation. However, the managers described that it was often difficult to be certain that their employees were committed to their work and to achieving the goals. They explained that in virtual teams it is easier to hide issues, ignore difficulties, and dissemble emotions, all of which play an important role in building trust and commitment. Emily, a team leader, had a team of seven employees in different countries and met them face-to-face only a few times a year. Emily explained a recent challenge as follows:

> *I always want to trust my employees but I often face surprising and unexpected problems when I visit the sites. A few months ago in a virtual meeting we agreed on the new project goals, and I believed that everything was progressing according to the plan. In weekly virtual meetings nobody reported any issues and I trusted them when they said everything was ok. Then recently, when visiting one of the sites, I found out that members were not at all committed to the project, the goals were not achieved, and three people had serious conflicts with each other. They reported to me that they didn't want to bother me with minor issues because they thought I was busy and had bigger problems elsewhere. I was disappointed and frustrated as I had thought we all trusted each other, shared all matters, and were committed to achieving our goals.*

In Emily's case both trust and commitment seemed to be missing and the goals were not achieved. According to her, trust was needed to gain commitment, but similarly commitment was needed to secure trust. Although the managers generally stressed that trust is the number one prerequisite and challenge in virtual work, they often stated that commitment to goals is indispensable whether there is trust or not. This was explained by Sarah, the vice president of a global function, who said that in a sense, trust was a prerequisite for success in virtual work, but above all, she needed the commitment of the employees and their compliance with the task:

…in virtual work you generally need to trust your employees from day one, and you simply don't have time to build trust. You just need to go on, you cannot wait, projects are running, time is running, and the results and goals need to be achieved with trust or without trust.

The managers tended to assume that trust was the default. Not only did they want to think that their employees were committed to do the work, trust was seen as a starting point, and the managers said that they trusted their employees in principle. According to several informants, trust was "a positive hypothesis," as described by Lauren, a vice president:

I trust my employees as long as I can, until I need to suspect there is a problem. Trust is measured in problems…if you don't achieve your goals, trust starts to decrease, and then I start to ask my employees what's the problem, why can't you achieve the goals, are you committed. Every single adversity will challenge trust; if my employee has not reached her goals, trust is questioned. And vice versa, if goals are achieved and results are good, commitment is shown and trust is increased.

Lauren's example shows that trust can be fragile and disappear quickly. This naturally applies to all working environments, but in global virtual teams connections with employees are weaker and fewer in number and the relationship between manager and employees is potentially more vulnerable. This was often seen in ad hoc situations where managers needed to react fast to the requests or conflicts virtual of employees and felt ineffective due to their physical distance from them. In these situations they spent time on the telephone and tried to arrange face-to-face meeting as soon as possible. The managers described a number of situations in which they were disappointed when they realized that the goals had not been achieved. For them, this was evidence of low commitment and the managers realized that their trust had not been warranted. Amber, HR director of a global division, gives an example of this:

I think trust must be earned and it takes time. And when there is no time, we need to assume that in principle the amount of trust is sufficient when things go ok…But I have learned that pursuit of complete trust is naive, unfortunately. I bet employees appreciate the trust given to them, but ultimately employees are measured by commitments and results. If the goals are not achieved, well, then I cannot explain to anyone that I just trusted blindly and expected my (virtual) employee to take care of it.

The findings of my study show that when targets are clearly communicated to employees, managers count on them to fulfill their commitments, even if there is no trust. The managers said that they do not see trust as an instrument or antecedent for commitment, particularly because task accomplishment is the main goal and achievements are evaluated in the performance management process. According to Amanda, the head of a global function, trust and commitment are "mixed up"; while trust in virtual teams is typically "still in the making", she nevertheless needs to be certain that the strategic goals are achieved and the work is done:

> *... and then there are cases when although trust was lacking, commitment had to be secured quickly to achieve targets and ensure good results. For example, in our US organization we were hiring a new employee...I did not trust this person and her competences at all. Yet I needed to work with her, make sure she is committed. I needed to ensure she achieved her goals, and support her to succeed in her position. But trust, there was not [any] trust...*

The challenges inherent in fostering trust and commitment may increase in matrix organizations, which typically make the reporting lines, roles, and responsibilities more complex. The majority of the managers in my study worked in a matrix and in multiple teams. They related many stories about how virtual trust and commitment are difficult in a global matrix organization. The managers described their work as "walking on a tightrope"; a matrix organization adds uncertainty and ambiguity to roles and responsibilities, all of which increase in virtual work. While expecting their employees' commitment to achieving targets, the managers often pondered whether their employees were committed to the local country organization or to their immediate manager in the global team. They said that employees took orders from their immediate supervisors, but also from local bosses, with whom they worked more closely in their daily business. Distance seemed to affect commitment in many ways. The managers described many situations regarding the issue of commitment; it was difficult to know "whose orders had priority" and whose commitment and word could be trusted. The majority of the managers felt frustration when they tried to cope and build trust in a matrix organization, as explained by Lauren, the vice president of a global function:

> *A matrix is a big additional challenge in a virtual environment. You need to trust people who are also managed by other people, and there are always problems if my way to manage differs for example from the country manager's way. I am often in a situation when I define the goals for my team and if the goals are somehow in conflict the country manager's goals, the employee is committed to the country. For example, if my goal is to enhance the employer brand, which may mean some investments, but the country manager's goal is to cut costs, the country manager, or in this case the legal manager, always wins. I can only protest, but that doesn't matter at all. My employee can agree with me, but acts in a different way. This shows where your commitment is.*

In sum, according to my research participants, trust is important in virtual work for achieving company goals, but regarding business goals, it seemed more important for managers to have the commitment of their employees. This in turn created more trust. A major factor in their work was the constant pressure of time, and the urgency with which goals had to be achieved; there was simply no time to build trust or to wait and see whether trust was growing.

5.2.4.2. Managerial practices: creating a sense of connectivity

The interviewees described their daily work as demanding and fast-paced. They talked often and at length about the difficulties encountered in finding enough time to keep in contact with their employees. Working across spatial and temporal borders decreased the possibilities for physical meetings and working days were typically long. Given the rare opportunities for frequent, meaningful face-to-face interaction, managers tried to find other means of communication and built regular practices to organize their daily work. The managers gave me many examples of how they interacted with their distant employees to build trust and commitment, to be able to observe how their employees were doing. These practices were typically structured monthly plans, scheduled meetings, regular calls, ground rules for team working, and carefully choreographed events. In addition, all managers in my study emphasized the importance and regularity of face-to-face meetings. They talked about how important it was to observe and see their employees at work, how they networked with others at the site, how they spoke with colleagues and customers, and how they delivered on their commitments. All of this had an impact on how trustworthy the managers considered their employees. The importance of socializing outside of work hours was also described by many managers. For example, common dinners during site visits were seen as a significant way to learn to know the team members, increase trust, and secure greater commitment from them.

The managers said it was difficult for them to experience trust and commitment virtually. One manager explained that "good sales people can be very committed to make the sales figures, but at the same time you are not sure whether you can trust them, because you cannot observe them at work and you don't know how they treat other people". According to the managers, their work was fact-driven and rational operations were prioritized to achieve the goals. This pushed managers to prioritize commitment. Lauren, the vice president of a global function, explained that objectives drive their work and trust may come second. She emphasized physical presence and personal relationships:

> *In our company, management is run through objectives, not through trust… Typically, meeting practices primarily measure the processes and follow-up. To create personal relationships and connectivity, we need face-to-face meetings. We try to build trust and commitment with these practices, but I can't imagine it is successful without face-to-face meetings.*

Predictability, consistency, and regular practices were said to increase cooperation and a sense of community, which in turn increased trust and commitment. According to the managers, "trust and commitment come in the same package". Moreover, several managers told about long-term and systematic attempts to foster trust and commitment by developing better practices for their team, as described by Brian, the senior vice president in the service business:

> *I need to have this certain structure, to replace the lack of face-to-face presence…It's not natural for me to call around, without any real reason, to ask how are you, or what's the weather like there. That's why I have built this system with my own team. Every other week we have a team call, everyone knows that it is an opportunity to share one's own things, it's kind of a milestone, in every two weeks we know that we can speak with each other, basically work-related topics… everyone participates in these calls… This system guarantees that we can share urgent things and that we meet face-o-face, too…everyone has meetings in their calendar one year ahead. We don't have coffee machine encounters, so we need to have the system, fixed and preplanned meetings.*

Like Brian, most managers in my study explained that if they have regular interaction and a strong relationship with their employees, it is easier to trust them and see whether they are committed. Similarly, Megan, a vice president of global development with 14 employees in 12 countries, emphasized the need to trust her employees "as the default position", and considered trust almost self-evident: "there is not any other choice but to trust each other". She said trust and commitment are dependent on each other but also difficult to separate:

> *I have made a lot of effort to be connected with all my employees. For example, we have agreed on a structure to which everyone is committed, we agree on common practices and hold on them. I want to make sure I don't forget anyone of my remote employees. It is also obvious that my leadership is not hands on; micro management is not possible in virtual teams. I cannot control my employees. For example, at the moment I have no idea where, in which country they are working. I need to trust them a lot, just give them guidelines: here you have the goals and the metrics, now find out by yourself how to achieve them and report back in our system. I expect they are trustworthy and committed to deliver their promises. This is a combination of trust, commitment, and management, all jumbled together.*

Although practices and structures were said to improve the work quality and verify trust and commitment, the managers continuously faced problems in keeping the team connected, committed, and productive. According to them, one reason for this was the amount of communication which was said to be "unbearable". The issues of multitasking and information overload were often mentioned. The managers told me about how they were worried that this "virtual pollution" did not increase trust or commitment but instead consumed too much time from everyone's daily work. Practices enabled regular follow-up, but at the same time there was a risk of losing motivation and commitment because employees were involved in too many virtual practices and communication and did not pay enough attention to relevant business issues on the manager's agenda. Similarly, the sense of presence was reported as another problem, as described by James, the vice president of technology:

> *Virtual presence is always weaker than physical presence. But with virtual presence we form a sense of connection - our employees feel that we listen to them and trust them. If we have trust...then virtual presence is possible...when the foundation is there. When we have structured meetings, for example our Monday meetings, we all tell our news to each other... people are then connected and committed, and they have liked this practice a lot.*

In a matrix organization, regular practices, predictability, and consistency were said to be particularly important, because trust and commitment are formed differently with people who do not report directly to you, but whose commitments are crucial for your results. According to the managers, commitment was stronger to direct line managers and to country managers whose physical presence seemed to impact commitment. Although regular practices improved cooperation, gaining the attention and commitment of employees was even more difficult. Generally, managers needed to devise new ways to work with remote employees; trust played an important role in gaining commitment from employees and vice versa. Alex, the global delivery process owner, explained how trust and commitment go hand in hand:

> *Being the manager of a remote team is difficult because people are scattered to many places...but (without virtual teams) otherwise I should travel around the globe myself. Trust makes leadership more effective. If I know I can trust my employees, everything is easier for me, follow-up is then all that I need to do, but if there is no trust...it takes more effort and energy, and leadership is not effective. Trust and commitment need to be understood in both directions. For commitment, employees need to see things are important, no matter if your manager is an asshole, but, if I see my employee is committed, it increases my trust, which makes leadership effective. Again, I gain commitment from my employees if I behave in a way my employees can trust me, I cannot say which one is the egg and which is chicken, it depends, they grow as any relationship grows, it can start from different points, the mechanism will change and the relationship will get better. This is where regular practices are built and needed, to create an opportunity for regular contacts...*

In sum, as the managers attempted to build trust with their employees and gain commitment from them, they created practices to enable connectedness and virtual "get-togethers." Trust and commitment to do the work were sought by improving mutual relationships. Practices guaranteed a sense of connectivity and provided an opportunity to monitor results. According to my data, practices and structures were a critical part of building trust and commitment, although many managers said that they improved commitment more than trust. In the opinion of the managers, trust was increased by more informal face-to-face encounters and learning to know employees personally. Particularly when working with people from different cultures, this was considered vital.

5.2.4.3. Cultural challenges: when there is no word for no

When the managers talked about the importance of reaching goals and building connectedness, they often referred to various cultural differences. They truly enjoyed cultural richness, but said that diversity also added challenges to their work. All of my research participants led multicultural teams with employees from different cultural backgrounds that spoke different languages and followed different norms and codes of communication. The managers told me about several situations in which the manager and the employees had understood the goals and agreements differently. They frequently talked about daily situations where different cultural backgrounds complicated mutual understanding and interpretation of information, trust, and commitment. They explained that trust develops differently in different cultures and commitment is also understood in different ways. For example, people may have different expectations regarding punctuality. It was also interesting to learn about hidden conflicts and the ability of employees to conceal things from a virtual manager, who physically visited the site or employee's office only rarely and could not monitor daily life there.

The managers told me many stories about how they typically begin their relationships with their virtual employees, how they tried to build trust, and how they assessed their commitment. They described differences between the dominating behaviors of people from different cultures and how such behavior impacted development of trust. They said that trust is important, but grows at a different pace with different people and that cultural background has a strong impact on the rate at which it develops. All research participants stressed that it takes a long time to build trust with a multicultural team; in virtual work time is more limited and face-to-face meetings to build relationships are rare. The ultimate goal for all was to be committed to company goals and to achieve good results, yet the managers explained that they did not have the luxury of building trusting relationships over time. Team members needed to show commitment and deliver results quickly, no matter how far they were in the process of trust building. Lauren, the vice president of a global function, described how commitment came first and trust evolved "on the side".

> *Trust and commitment show up so differently in different countries, but are strongly connected. Finns have trust as a default: I trust that you will carry out your commitments, and if you carry out our commitments, I trust you. In China the situation is the opposite: it is odd if a manager trusts too much and gives too much freedom, does she care for her employees at all? Italian culture is based on service in*

return: favors for favors, you owe me one, I help you, and you help me. Americans don't even think whether there's trust, the end justifies the means. Everything is based on aggressive goal setting, the company man makes the result and budget, they say that they trust only what Excel shows us.

Lauren explained how she saw trust as the default position, which was typical for Finnish managers and pointed out that she was often disappointed and frustrated to see that she had to change her attitudes and thoughts about trust. Rachel, who worked as a director in a global service function, reported her experiences about cultural differences regarding trust and commitment:

Very often here, my job is that I sit almost the whole day alone in my office with my headset on. With multi-cultural teams I have faced new problems, with commitment and trust for example. If I tried to…give my team space to find a solution by themselves, or to reach the target, typically nothing happened. Here, (with Arab cultures), the working culture is much more hierarchical… and employees expect a clear mandate from their manager. The degree of trust boils down to the amount of control. For example with Saudis, where I was not allowed to travel at all, we had more frequent follow-up meetings, and according to my experience, structure and tight control help… but the manager can easily destroy employee commitment with bad leadership… Face-to-face leadership is always more effective and reliable… I never want to end up in a situation in which I need to manage my people with virtual collaboration tools only.

The rapid growth of the Asian market brought the managers many new team members from Asian countries, particularly from China. According to the managers, the cultural differences between Finnish and Chinese were large, also in terms of trust and commitment. In the managers' opinion, it took a long time to build trust with Chinese employees; communication challenges complicated trust building. For example, the managers explained that in some cultures words convey one's intention, while in other cultures the context and interpretation of the message provide cues which are as important as words. Similarly, in certain Asian cultures there is basically not a word for "no", particularly when you speak to your supervisor. The managers explained this as follows; when they meet a person face to face, they hear him saying yes, they can see his refusal from his body language (or they can even see him shaking his head), but in a virtual environment these important nonverbal cues cannot be detected. Spoken words can be interpreted in different ways. In Finland yes means yes and no means no, but in some cultures positive answers are not an indication of commitment or trust. Luke, the manager in global development, described that while his employees always answer yes, he is unable to be certain that they mean it. He has also faced challenges in understanding whether his employees are committed and he can trust them:

…And then you have to go on to explain the commitment that you want from them. I ask if they have understood me, what I want, now, will

you do it. And then, when will you do it? I cannot ask questions that just involve yes…so this has been part of my learning…I used to trust there was commitment but there was not. I realized I was getting the 'yes, I understood' but I never got the 'yes, I will do it.

Throughout the data, I found evidence of the impact of cultural differences on fostering trust and commitment in managers' work. According to the managers, cultures seem to regard trust and commitment differently. As the managers of my study were Finnish citizens, they saw trust and commitment through "Finnish lenses". According to my research participants, Finnish managers typically see trust as a basic foundation for cooperation (see also Lönnblad, 2012). They said that commitment fosters trust and vice versa. For example, the managers described that Finnish managers primarily think that everyone is honest, equal, and trustworthy. Consequently, they believe that employees will deliver what has been agreed and are committed to their work. The data were rich with comments on the feelings and frustrations of managers about their ability to anticipate the behaviors and responses of their virtual employees. The managers assumed that if they trusted their employees, they would secure their commitment, but this did not always happen. Moreover, the managers explained that particularly in China, the employees view "automatic" trust on the part of a manager as a sign of disregard. Rachel described this as follows:

My style is that first I give my employees a lot of fishing line, freedom, and if something happens which makes me not trust them, then I shorten the line. I have seen that in other cultures this goes the opposite way, first less line, later more. We Finns think it's good to have trust but in China many people thought that you are not a good manager if you don't control. Chinese employees thought it was strange that we trusted them so much; they thought managers who are too trusting and confiding are even negligent and dangerous.

In the interviews, most managers stressed cultural challenges when speaking about trust and commitment in virtual work. They claimed that in China, for example, "you don't get commitment from employees if you don't build personal relationships with them." In addition, they reported that commitment was typically weaker to a virtual manager than a local manager, although Chinese respect hierarchy and obey managers' orders. Most managers said that relationships can be built only by meeting physically and spending time together. They spoke of long meetings and 12-course dinners; it was considered very impolite not to attend the latter. According to them, trust grows gradually in these shared experiences. The managers told me that they had made significant investments in site visits and afterwards recognized numerous benefits; they had learned to know people and they felt that mutual trust was stronger and that their employees were more committed to do their work.

According to the managers, trust and commitment can grow even to levels comparable to those in face-to face teams over time, depending on how fast the managers learn to know their employees, how fast they understand the circumstances and differences of the team members, and how long it takes to build a sense of connectedness in virtual employees. Managers' own commitment also plays an important role; they need to show their own motivation and commitments clearly. Telephone communication does not enable sharing passion or energy, which was mentioned in many interviews. All in all, trust and commitment were said to be closely tied together, both "taking turns" being cause and effect. Samuel, a project manager describes his feelings as follows:

> *In certain cultures it is difficult to move things forward and gain commitment if you cannot work face-to-face, things do not progress, there is no buy-in, no commitment, and people don't believe in it and don't work for it independently. I think the reason might be that I haven't been able to create trust and belief that this manager, me, is worth following, and that this task and commitment are worth delivering…I cannot virtually win people over to my side; I cannot convey energy via the phone. We need passion for commitment, but it's the passion which is difficult to convey, it also comes with body language, how can I show my passion and commitment…*

Samuel's example summarizes the concerns of managers about trust and commitment in their virtual work. Trust and commitment seem to be strongly linked together; they are vital for daily work and built differently with different people. Figure 6 below presents a dynamic model of the relationship between trust and commitment.

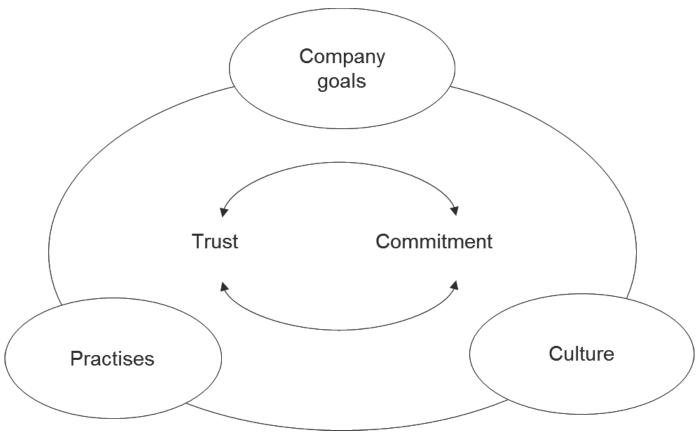

Figure 6. A dynamic model of the relationship between trust and commitment

5.2.5 Conclusions

The focus of this study has been to explore how managers talk about trust and commitment in their virtual work. Aligned with existing research, my findings suggest that in global virtual teams, trust and commitment are fundamental elements and among the biggest challenges in the work of managers (e.g. Joshi et al., 2009; Malhotra et al., 2008; Purvanova and Bono, 2009; Verburg et al., 2013; Wilson et al., 2006) and are entangled and involved closely with each other. In virtual teams, managers typically have limited time and little opportunity for physical presence, both of which retard trust building (e.g. Joshi et al., 2009; Pauleen, 2004; Wilson et al., 2006). Trust needs time and face-to-face contact. Like the findings of Walther (1995), who was one of the first scholars to explore virtual work and found that development of social relationships and trust take a longer to develop in virtual teams where the transfer rate is slower, my findings also show that time is a critical factor in virtual work. Trust building takes time, but commitment to drive results and revenue is needed immediately, and this increases the challenge and pressure of managers' work.

The findings from the analysis of 36 interviews of a global technology corporation show that the dynamics of trust and commitment were regarded as complicated, mainly because of the electronic (virtual) collaboration with its lack of non-verbal cues and limited time. The managers did not see a "linear connection" or causality between trust and commitment, i.e. trust being necessarily a prerequisite for commitment, as prior research suggests (e.g. Germain and McGuire, 2014; Holton, 2001; Lipnack and Stamps, 1999, Pierce and Hansen, 2013). According to my findings, building trust in global virtual teams requires commitment and commitment requires trust. In a demanding and fast-paced virtual environment, managers do not have adequate time to build trust, but nevertheless need the commitment of their employees to get the work done and the targets achieved.

According to the managers of my study, business targets guide and drive their work and define expectations for their teams. To cope with their daily work, the managers built practices, processes, and structures for their teams. With these practices the managers sought to follow up the progress of work, but also to build relationships, improve trust, and strengthen commitment. They talked extensively about commitment and also stressed that despite the many challenges, they appreciated their meaningful job and the feeling of making a difference for the company; this strengthened their commitment and engagement.

My data offer some interesting findings about trust and commitment in multicultural virtual teams. In my study, the majority of the research participants were Finnish natives, who generally trust people. According to a recent European Social Survey (2015), Finland was ranked as the number one country in terms of how people trust one another. The nature of a manager's trust (as the default position) was frequently emphasized by my research participants, who thought that their perceptions of trust and commitment differed from those of their virtual employees. This all impacted how trust was developed, but also how commitment was shown and demonstrated in their global virtual teams.

My findings contribute to the literature of global virtual teams in the following ways. First, by identifying the themes that the managers described as critical for trust and commitment in virtual work, it was possible to learn how trust and commitment play out. For example, aligned with previous research, trust and commitment were based on actions rather than goodwill and on a common set of procedures or ways to do things (e.g. Clark et al., 2010; Malhotra et al., 2007). Moreover, trust did not come automatically with team membership, but required practices and team processes to compensate for the lack of face-to-face time and to follow up the work.

Second, while existing research has constantly stressed that trust and commitment are critical in virtual contexts and emphasized that trust is vital in building commitment (e.g. Chen et al., 2011), I argue that trust and commitment are related with each other in a more complex manner. According to my findings, they cannot be built in a systematic or straightforward way, but are closely tied together; managers must have faith in the ability and commitment of their employees' to deliver, and to have trust, they need to see their employees' commitment, which is vital for the success of the team. This all needs time, which in a virtual environment is more limited than in co-located work. In addition, in virtual work the personal bonds and relationships may be fragile, but without commitment a virtual team will most likely fragment and not fulfill its goals (see also Zofi, 2012).

Thirdly, my analysis suggests that although in a virtual context trust is pivotal, managers need to obtain the commitment of employees to reach goals, whether there is trust or not. Trust and commitment are related, but if managers are forced to compromise, they will cut corners on trust. This may mean a return to "hard management," the managers being forced to gain commitment and to get results, regardless of whether trust exists. On the other hand, the managers in my study sincerely wanted to build trust and support their employees, but felt they were "between a rock and a hard place". The managers faced high demands, and while trying to achieve better results, they also tried to be good leaders, which they sometimes found challenging, particularly with virtual employees.

This study also offers practical implications for managers and organizations. As virtual teams arise faster than it is possible to train managers and employees to operate in virtual organizations, managers typically need to learn to lead their virtual teams through trial and error. More studies and company development programs, as well as coaching, training, and support will thus be needed before virtual organizations have practices and processes that can be used to overcome these challenges. Organizations can also benefit from paying attention to how trust takes time in virtual teams, and how active relationship building with site visits, for example, can improve the success of these teams.

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5.3 Management is back! Cross-cultural encounters in virtual teams

Abstract

Global virtual teams pose new challenges for cross-cultural management and leadership. Virtuality in itself alters the nature of these activities. When managers are also confronted by significant cultural differences, they may find it increasingly difficult to be the accessible, caring, and people-oriented leaders required by new-genre "soft" leadership. Our case study suggests that virtual reality lends itself to what we call "hard-core" management in cross-cultural encounters. This backlash has been further accentuated by the substantial cultural differences and physical distance, in this case, between Finns and Chinese. In particular, the pressure of time, the conundrum of virtual presence, and the limits of communication technology have affected the nature of cross-cultural leadership in virtual teams.

5.3.1 Introduction

In many organizations, geographically and organizationally distributed work has become a common mode of operation. In response to the challenges of globalization, cost savings, and increasing customer demands, the amount of virtual work is growing rapidly; it has been projected that within a few years more than 1.3 billion people will work virtually (Gratton and Johns, 2013; Kelley and Kelloway, 2012). Global virtual work is posing new challenges for cross-cultural management because managers are increasingly required to lead culturally different people whom they rarely see. At the same time, current leadership trends strongly emphasize "soft," people-oriented leadership characterized by support for employees, coaching, and emotional intelligence (Avolio et al., 2009; Zander et al., 2012). We show, however, that the current reality of global virtual team leadership often boils down to "hard-core" management by numbers and coercive control, despite efforts by managers to the contrary. There is simply neither room nor time to take up personal, informal, or unplanned issues. Instead, leadership tasks are determined by virtual circumstances and formal processes, leaving little opportunity to build close relationships with geographically scattered team members.

This chapter focuses on how "virtuality" alters the leadership of global teams, a topic which has received limited attention in previous research (Jonsen et al., 2012; Kelley and Kelloway, 2012; Zander et al., 2012). Global virtual teams are generally said to be culturally diverse and geographically dispersed, and to communicate electronically. However, as Klitmøller and Lauring (2013, 399) point out, "more empirical studies are needed to understand virtual communication in an intercultural context". We undertook an ethnographic case study of managers who led global virtual teams in a Finland-based multinational corporation operating in the high-tech sector. We analyzed the challenges experienced daily by Finnish managers in virtual leadership of Chinese team members, who represent the most important and fastest growing market for the company. Due to the considerable cultural differences between Finns and Chinese, interaction between them is particularly appropriate for examination of global virtual leadership. Since top managers at headquarters in Finland perceived there to be a lack of local management talent in the Chinese subsidiary and a simultaneous need for close collaboration, Finnish managers did a considerable amount of their work virtually. As a result, virtual management became common-place in the case company.

This chapter integrates research on cross-cultural leadership with recent work on global virtual teams and shows how the virtual environment impedes the efforts of managers to be accessible, caring and people-oriented leaders. Despite increasing scholarly interest in what has been termed as new-genre leadership (Avolio et al., 2009), company reward systems that incentivize managers to adopt new leadership practices, and employees who expect to have “servant leaders” (Barbuto and Wheeler, 2006), virtual reality has caused regression towards “old-style management” in our case company. This backlash has been further accentuated by the large cultural differences and long physical distance between the Finns and the Chinese, the conundrum of virtual presence, and the limits of communication technology.

5.3.2 Recent trends in leadership research

Current leadership research is largely based on the assumption that leaders are able to lead thanks to close, sustained, and personalized relationships with their employees. However, new virtual realities challenge this assumption. In fact, several scholars argue that “virtuality” is a fundamentally different context for leadership than traditional physical contexts (Kelley and Kelloway, 2012; Wakefield et al., 2008). This is reflected in the myriad of synonyms for virtual leadership such as e-leadership, which refers to leaders who conduct many leadership processes largely though electronic channels (DasGupta, 2011; Zaccaro and Bader, 2003), d-leadership, which refers to the distance that separates individuals from their team members (e.g. Zigurs, 2003), and remote leadership (e.g. Kelley and Kelloway, 2012). It has been argued that virtual leadership requires very different mindsets, behaviors, and strategies than what is needed in co-located settings (Kerber and Buono 2004; Wakefield et al., 2008).

Scholars have for some time attempted to determine what constitutes successful leadership. Avolio et al. (2009) undertook a review of leadership research and examined the ways in which the field has evolved. They refer to early leadership research by Bass and Avolio (1990), who distinguish between transactional and transformational leadership. While transactional leadership is defined as a series of exchanges between the leader and the employee or follower, transformational leadership suggests that the leader’s behavior transforms and inspires followers to perform beyond expectations, transcending self-interest for the good of the organization (Bass and Avolio, 1990).

Recent leadership research echoes this early work on transformational leadership by emphasizing the ability of managers to encourage, support, coach, listen to, empower (Avolio et al., 2009), and be accessible to their employees (Neuschel, 2005). The so-called “servant leadership” style (Barbuto and Wheeler, 2006) is an example of modern people-oriented leadership. Servant leaders have followers whom they help to grow in stature and capacity, and whom they turn into more useful and satisfied individuals. Similarly, “appreciative leadership” emphasizes the efforts of leaders to develop their people, and also engage and mobilize their creative and positive potential (Whitney et al., 2010). In turn, “authentic leadership” underscores transparent and ethical leader behavior that encourages openness in information sharing and decision-making while accepting the inputs of followers (Luthans and Avolio, 2003). It is also assumed that such leadership styles generate positive outcomes in terms of higher levels of employee motivation, stimulation, and satisfaction (Judge and Piccolo, 2004; Zander et al., 2012). These new leadership trends are further reinforced by the high expectations that new generation employees have for their leaders. These young people want to be coached, receive feedback on a regular basis, have challenging job tasks, but also enjoy flexible working hours (Yu and Miller, 2005). Avolio et al. (2009) use the term “new-genre leadership” to describe the shift towards charismatic, inspirational, and visionary leadership that has been the focus of attention in the field over the past 20 years (e.g. Avolio, 2005).

5.3.3 Leadership in global virtual teams

Global virtual teams characterized by national, cultural, and linguistic heterogeneity have become commonplace (Zander et al., 2012). They can be defined as groups of people who (1) work together using communications technology, (2) are distributed across space, (3) are responsible for a joint outcome, (4) work on strategic or technically advanced tasks, and (5) are multifunctional and/or multicultural (Jonsen et al., 2012, 364). Team members are likely to represent a variety of specialist functions and have multiple reporting lines to their managers in a matrix structure. Hence teamwork requires collaboration, co-operation, co-ordination, and commitment from team members who are generally physically remote from each other (Symons and Stenzel, 2007). The leaders of these global virtual teams manage employees who are dispersed over multiple locations and countries and who collaborate in the main virtually, through communication technology.

Technology plays a key part in the work and effectiveness of global virtual teams because it enables communication and helps overcome spatial and temporal distance. Virtual teams use different types of communication channels and media in their work. Lean media refer to emails, telephone calls, and virtual encounters such as "live meetings" and represent rather limited channels that are appropriate for sharing simple and explicit information (Klitmøller and Lauring, 2013). In turn, rich media are channels which also allow verbal and non-verbal communication, e.g. video conferences (Maznevski and Chudoba, 2000). However, researchers frequently understate the disadvantages associated with communication technology, be they lean or rich. In a global environment, abilities to make use of technology, connectivity, and the sophistication of devices may vary. Moreover, computer-mediated communication is generally perceived as less warm; for example, email messages contain more negativity than face-to-face communication (Berry, 2006; Kelley and Kelloway, 2012). Taken together, it is possible that technology itself adds to perceptions that virtual teams are very task-oriented and exchange limited socio-emotional information (Chidambaram, 1996).

Thus, it seems that the reality of virtual work limits opportunities of global team leaders to communicate and take a personal interest in the members of their virtual teams. How then do these leaders support, care for, and inspire their people virtually when they are separated by distance and cultural differences? Or do they – for lack of better alternatives – settle for "second best" solutions and compromise in order to cope with their employer's requirements and employees' needs? This tension between expectations of "good leadership" and virtual reality was a theme that surfaced in our study of Finnish managers engaged in virtual leadership of Chinese team members.

5.3.4 Findings

We conducted a case study of a Finnish multinational corporation operating in the high-tech sector. China represented an important region for the case company. The challenge posed by the need to recruit competent Chinese individuals to managerial positions in one of the most difficult labor markets in the world accelerated the need to work virtually. In 2014, many managers were still based in Finland but worked at a distance from their global virtual teams. These teams typically consisted of more than 10 members, with one to five members from China and the rest from e.g. the United States, India, Italy, France, or Germany. Hence most of the members were non-native speakers of English, the common corporate language.

The first author conducted a total of 25 personal interviews with team leaders and managers who were each responsible for one global virtual team. The interviewees occupied roles such as supply manager, vice president for technology, vice president for logistics, head of project management, and head of field and technical training. We use pseudonyms to protect their anonymity. The first author was also employed in a global role in the case company for four years. She conducted participant observation and took field notes on her daily work and that of her colleagues when they interacted with their employees through various communication channels such as conference calls, email, videoconferencing, chats, Lync, Skype, live meetings, and face-to-face encounters.

Our interviewees described their daily work as demanding and fast-paced. Working across different time zones added to the length of their working days. The time difference between China and Finland is six hours which means that the first calls are scheduled at 6 or 7 am Finnish time. Kevin, an executive vice president of new product business with long tenure in the company, described his daily work as follows:

> *My days are long. In the morning I call my Chinese employees, in the evening my American employees. The clock speed has changed, everything is moving faster than before and reaction times are shorter than before. Things get old sooner than before and are replaced by new things... The difference between work and private life has also disappeared.*

Kevin refers above to the "clock speed" which sets the annual sequence of business planning, budgeting, and strategy work. Managers determine the goals for their teams and individual team members on the basis of shared strategy and plans, and monitor their implementation through regular meetings on a weekly, monthly, quarterly, or annual basis. The whole team, including the Chinese employees, participates in these conference calls and live meetings. Our field notes and the interview data suggest that participation by the Chinese team members decreased when the team size in virtual meetings was large. The Chinese became more cautious and "did not take a firm stand on issues" as Amber, the HR director, pointed out. In such situations managers typically followed up on actions and performance in one-to-one calls to solicit additional information. Furthermore, several unexpected, ad hoc events such as customer requests, conflicts, or personal issues, also required the attention of managers. They tended to travel to China a few times per year to meet their employees in person.

The annual performance review of the managers themselves was associated with how well they reached the targets set for leadership development. Global leadership standards were defined by the competence model used in the case company. The key leadership competences included decision-making, executing, winning through people, collaborating, strategic and business acumen, and customer focus. They were used in continuous assessment, review, and development of the managers' competences and skills. In addition, strategic development programs, which changed every three years, introduced new leadership requirements. Moreover, a coaching culture was launched and broadly promoted internally which had a positive impact on leadership competences. The managers interviewed made an effort to coach and support their employees and listen to them. At the same time the expectations of the employees were also rising as they repeatedly called for more guidance, support, and caring from their managers. Amber, the HR director, who had recently returned from a two-year assignment in China, described the expectations of the Chinese employees as follows:

Definitely, they need clarity, with instructions and all…but at the same time they expect caring, especially the younger employees. They have typically come from far away to work in a city, their parents are far away and they look for support. I felt I had to be a mother for them. They build strong relationships with you as a manager and if you leave the company, they usually do, too.

It is also possible that Amber's position as HR director and her own female gender brought to the fore the feminine side of new leadership styles.

Time pressure and virtual work overload

The managers interviewed described vividly and at length their daily practices with the Chinese employees with whom they worked mainly virtually. Because of the physical distance and time differences, managers could not reach their employees on a need-basis (or vice versa). Instead, communication was limited to virtual meetings which had to be pre-planned and tended to be formal in nature. The calendars of the managers were soon fully-booked with virtual sessions which often took place simultaneously. Many interviewees spoke about "virtual work overload", even "virtual pollution", and stressed the need to shorten the meetings to make them more effective. This resulted in strictly planned meetings with regular working structures and ground rules for the team.

The virtual meetings between the Finnish managers and their Chinese team members seemed to be dominated more by a task-orientation rather than a people-orientation. Our findings show that communication became more formal and was limited to pre-scheduled meetings. The main contents of an average virtual meeting focused on information sharing, follow-up, metrics, control, and reviews. Also, there were fewer items on meeting agendas. Each team member commented in turn on the agenda items. As a result, the agenda was discussed mechanically; there was no time for personal issues or ad-hoc queries. Amber, the HR director, commented: If you only have one hour at your disposal, there is simply no time for any small talk at all!

Managers generally had limited time to support and motivate their Chinese team members or to listen to their concerns. The Chinese employees were very shy, polite, and respectful toward their managers. They were reluctant to raise problems in virtual meetings and tried to avoid speaking about controversial matters. They were more reserved than the Finns, seldom questioned or challenged official stands on agenda items, and listened passively during virtual meetings. Hence the managers had to resort to regular one-to-one calls with the Chinese team members. Nevertheless, personal matters were usually handled in face-to-face meetings if at all. Ryan, a team leader describes his leadership approach:

It's important for the Chinese not to lose face... that nobody is in an unpleasant situation. [Raising negative issues] is easier via [Lync communication software]. Last week, when I was in China, we found some problems and agreed on how to tackle them. This week they have had time to prepare for the next meeting via Lync. So we can sort of "warn them" virtually beforehand...

Ryan explained how he had learned to take the Chinese employees into account more effectively while continuously developing his ability to lead them as team members. The company also offered training programs on Chinese culture for managers and team leaders like Ryan.

On the other hand, our interviewees were also of the opinion that the quality of the work conducted in global virtual teams had improved owing to shorter and more effective meetings. The managers also described the benefits that these changes created for their Chinese employees: they felt that when the meeting was well-prepared and structured, it was easier for the Chinese to overcome the language barrier, follow the meetings, and participate actively. Another advantage of virtual communication with the Chinese was raised by David, a supply manager, who had employees in several countries:

Facelessness makes the Chinese bolder. Facts are also accepted better, perhaps because I am forced to communicate proactively.

Several interviewees mentioned that interaction with the Chinese was evolving as younger Chinese managers and employees, who were more used to "western behavior", joined the workforce. Brian, an area manager, confirmed this. He pointed out that virtual communication with the Chinese managers was already more effective as they were more competent and used to communicating virtually across cultures than their local subordinates. Perhaps over time the good example of local Chinese managers would also have a positive effect on the Chinese employees in terms of meeting behaviours.

The limits of communication technology

As mentioned above, managers used the telephone, email, chat, Skype, live meetings, or Lync and many other software applications to communicate with their employees. They reported frequent disruptions in communication. Several interviewees expressed frustration with the technology when communicating with Chinese employees. Brandon, a team leader in material management, explained the technical problems and challenges:

Technology often fails, phone lines are bad, live meetings don't work... then we are late and everyone wastes time.

Amber, the HR director, worked a lot from home in Shanghai, and complained that colleagues at headquarters often failed to notice the technical problems:

Technology fails all the time, connections frequently fail when you are working from home. There is also a lot of background noise. We keep hearing the clinking of coffee cups at headquarters and cannot properly understand what's being said.

Managers reported how the technology limited their communication with employees whose faces, body language, and gestures they could not see. Tyler, vice president for the supply organization, referred to the lack of nuance, emotion, and tone of voice in communication mediated by technology. Daniel, a product manager, described a typical source of confusion with his Chinese employees:

The challenge is to get your message through [when] the answer is always "yes, yes, yes…". Then you realize that they have not understood at all… I start from the beginning, with different words, speaking clearly, and ask them to repeat what I have said.

Language-related challenges with the Chinese employees were frequently reported by the interviewees. Poor connections made it even more difficult to hear and understand what was said in a foreign language. Furthermore, computer-mediated communication impoverished the language used as stories were not told, emotions could not be expressed and the tone of communication was very professional. Language was a major issue for the case company, particularly in China. The case company had adopted English as its common language in the 1970s and thus everybody was expected to speak good English. However, the level of English in the Chinese subsidiary was still inadequate, although the company had made a significant investment in English language training for the Chinese managers and employees. On the other hand, the English skills of the young generation were improving because of changes in the local educational system. Brandon, a manager for the supply organization, articulated the language issue as follows:

Language can be a problem and we need to give odds to the Chinese. I have to speak more simply and clearly. The Chinese may also have a strong accent. If we cannot understand each other, then we try to find another solution. I usually send an email [because] written text is easier to understand.

Robert, the vice president for maintenance, had worked a lot with the Chinese and commented as follows:

Language plays a very big role [in communication]. Every time I meet a person who speaks bad English, I wonder whether they are incompetent or only have a language problem. I need to constantly remind myself that content is the key. Similarly, good English can also lead you to draw the wrong conclusion: first you think what a smart guy but afterwards you find out the reverse.

Robert's comment reveals the close connection that is often made between foreign language competence and professional competence.

The conundrum of "virtual presence"

Presence is one of the refrains in current leadership discourse: in order to support employees, managers should be present. Our interviewees frequently pondered on virtual presence in a situation that did not allow them to be physically co-located with their Chinese team members. They argued that presence was particularly important for building trust. In Asian cultures, meeting a person physically is a pre-requisite for creating trust. James, director of the R&D department, stressed the following:

> *With the Chinese people, virtual leadership works well, but only if you have established the relationship non-virtually. It is essential that you have met face-to-face, that's how you create trust [and] then you can operate. But there is no way it can work if you have never met face-to-face.*

In a similar vein, the vice president for a manufacturing department put it as follows:

> *I think physicality is more important for the Chinese than for other cultures. For them, a physical visit means that you respect them. You cannot have a discussion with a Chinese person before you know them properly. It means exchanging gifts. If you need to become close [with the Chinese], you need to do a favor and receive one in return. First you have to agree on the formalities, go through things. We talk without reaching any conclusion, we eat and drink… Then I suggest that we make a development plan [and ask] whether I can show how to do it. [It's] just a simple favor, but necessary.*

Brian, the senior vice president for a business function, continued:

> *Meeting and visiting my people physically means that I respect them. On the phone the employees might think I'm arrogant. Also, sensitive issues are difficult to talk though on the phone.*

Amber, the HR director, agreed:

> *The Chinese appreciate a personal visit. The problem is that Finnish managers are often too busy when they come for a visit. It is important for the Chinese that their managers have time for them, have long dinners with them. That's when you start to understand the challenges. They appreciate being asked how they're doing. Finns seldom inquire about the families [of their Chinese counterparts]. The Chinese appreciate that you have other interests beyond work. You can see from their facial expressions whether they are pleased.*

While the Finnish managers perceived that virtual communication and virtual work practices were improving, there were limits to what could be achieved virtually, as Ryan described:

> *The only thing that I cannot do with the Chinese virtually via Lync is quality checks... Next week I will wear my overalls again and ask the factory manager to show me 'by hand' how he checks quality.*

Brandon, an area manager, was more pessimistic about the potential of working virtually:

> *It's ok to work with the Chinese virtually, but only when it's about follow-up and controlling.*

Another theme associated with presence is how to recognize, gain, and ensure commitment virtually. The managers spoke about the need to "look into their people's eyes" to discover whether they are committed. Ryan, a regional manager working at headquarters in Finland, explained this as follows:

> *I want to be physically present when we have issues such as a change in direction. I want to have commitment from the Chinese, to create a bond with them by looking into each other's eyes. Lyncs and other meetings are more about follow-up. From time to time I need to physically make sure that things are done as agreed.*

When trying to ensure commitment from the Chinese team members, Ryan was faced with the challenges posed by a matrix structure. Dual reporting lines, which are at the heart of the matrix, do not suit Chinese culture. The Chinese are used to vertical lines of command; virtual work with its horizontal and diagonal interrelationships does not necessarily provide the clarity and security they prefer. For the Chinese, it was comforting to know their job role and receive orders and guidance from their direct line manager. Andrew, the director for a product line, described this as follows:

> *We have tried really hard to introduce the matrix structure in China but the Chinese culture is not receptive to it. For them, the relationships between managers are unclear, what role the operative line has...They are not used to taking orders from anyone except their own manager. [They are] uncertain but don't show it clearly and ask strange questions [when] seeking confirmation. We need more management intervention.*

Hence our interviewees experienced that the lack of physical presence rendered their cross-cultural management work more difficult, in some cases even impossible. Although the managers tried to increase a sense of presence through good listening skills, virtual support and regular contacts, face-to-face meetings were necessary to improve their relationships with the Chinese team members. If the interaction was exclusively virtual, the leadership remained faceless; the tones of voice and emotional expressions that build and sustain relationships were missing.

5.3.5 Conclusions

In this chapter, we have examined how cross-cultural management and leadership play out in global virtual teams. Our findings suggest that a virtual working environment coupled with cultural differences impoverished interaction between the Finnish managers and their Chinese team members and turned leadership into “hard-core” management. The managers suffered from time pressure and virtual work overload, which forced them to be economical and efficient in their communication. Consequently, virtual meetings became shorter with brief agendas; hardly any room was left for ad-hoc topics or personal issues. Our interviewees felt that they were forced to narrow down the scope of topics discussed in virtual interaction; nuances and weak signals were therefore left out. The limits and problems associated with communication technology further accentuated the perceptions of physical and psychological distance between the managers and their team members.

Current leadership literature advocates people-oriented styles (Zander et al., 2012; Purvanova and Bono, 2009), which are said to be particularly important in China (e.g. McElhatton and Jackson, 2012). Comprehensive reviews of the literature provide further evidence of a move away from traditional, task-oriented leadership to new leadership models that emphasize individualized attention, engaging emotions, and inspirational messages (Avolio et al., 2009). However, our case study of cross-cultural encounters in global virtual teams suggests the reverse; that despite company reward and incentive systems, employee expectations and genuine attempts by the managers themselves, the virtual environment reduces cross-cultural leadership practices to “hard-core” management. Previous research confirms that virtual work favors task-oriented and ‘to the point’ communication at the expense of socio-relational communication (Thompson and Coovert, 2003). However, by juxtaposing leadership research with recent work on global virtual teams we were able to uncover the tensions that characterize cross-cultural management today.

The cross-cultural encounters between the Finnish managers and their Chinese team members took place in English and were hampered by differences in language fluency and accents. As cultural differences were interwoven with communication and technological problems, Finnish managers often perceived virtual work as cumbersome and time-consuming. In line with the study by Klitmøller and Lauring (2013), our findings suggest that in situations, which from a western perspective involve large cultural differences, the use of lean media such as e-mail is beneficial because it reduces cultural cues, removes accents, and downplays local uses of English. It also provides team members with increased time for expression and reflection. However, as our findings also demonstrate, business communication with the Chinese is in a state of flux. Kankaanranta and Lu (2013), who studied the evolution of English as the business lingua franca in Finnish-Chinese interaction, argue that young Chinese professionals communicate what from a western perspective seems like an increasingly direct way. Many of them are internationally minded individuals with university degrees who are comfortable using English at the workplace (Kankaanranta and Lu, 2013). These future managers are transnational elites whose cultural traits may be less demarcated when they operate in English.

The present study is limited to the perspective of managers on leading global virtual teams. Future research should also incorporate employee viewpoints to gain a more complete understanding of the leadership challenges in such teams. Moreover, we focused on the specific leadership challenges experienced by Finnish managers in their bilateral relationships with their Chinese team members, because our informants referred to them as the most "pressing" ones in the context of virtual cross-cultural management. However, to be fair, the managers also mentioned the enriching side of cross-cultural encounters in virtual teams. In future research, the broader cross-cultural dynamics of global virtual teams could also be included.

To conclude, our study shows that virtuality does indeed change the nature of cross-cultural management and leadership in fundamental ways and calls for new leadership competences. It requires that managers are able to empower and trust their team members, who are physically and culturally distant. Virtuality also necessitates that managers are willing to accept increasingly democratic patterns of communication in which each team member has equal space in which to contribute. Given the conundrum of virtual presence, micro-management is simply not possible anymore. The field of cross-cultural management will need to take heed of these challenges as global virtual teams become the norm rather than the exception in managerial work.

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5.4 Living with inadequacy and guilt: the emotions of managers in global virtual teams

Abstract

This study focuses on the emotions of managers in global virtual teams. Earlier research on emotions in virtual teams has demonstrated the important role of emotions in virtual contexts and emphasized that managers need to manage and handle the emotions of others. However, studies of the emotions and emotional work of managers in virtual teams are very rare. This study attempts to fill the gap in previous research. Based on 36 qualitative interviews, the findings indicate that in their daily work with virtual teams, managers face stringent demands and high expectations and must cope with daily routines, structures, and training. Together with many positive emotions, the managers often felt frustrated and inadequate. As they are under pressure to meet all the expectations and to cope with the various challenges of a global virtual environment, they felt that could not do enough and described emotions of inadequacy and guilt in their work.

5.4.1 Introduction

In recent years there has been an overwhelming increase in the number of studies on virtual teams and much is already known (e.g. Gilson et al., 2015; Hertel et al., 2005). The past decade has also seen a growing understanding of how emotions are intertwined with all aspects of organizational life and embedded in them (Brotheridge and Lee, 2008). Emotional skills and emotional intelligence have been considered essential for everyday managerial work (e.g. Pitts et al., 2012) and the traditional stereotype of the exclusively rational manager has been replaced by one in which managers are expected to create and nourish positive relationships by effectively managing their own emotions and those of their employees (Brotheridge and Lee, 2008). Yet these two research streams have rarely met (Fineman et al., 2007). Given the commonplace experience that working in a virtual environment is far from emotionally invalid, this seems surprising.

Given the accelerated growth of virtual work, global managers need to lead their teams in a fast-paced, fast-changing, and complex environment with a variety of expectations. Virtual teams, which collaborate primarily through technology, are commonplace to managers who work in global companies (e.g. Bell and Kozlowski, 2002). When leading their employees in a virtual environment, managers face a number of challenges with trust, communication, commitment, performance, and cultural differences (e.g. Gilson et al., 2014; Jonsen et al., 2012; Sinclair, 2010; Zander et al., 2012; Zimmerman et al., 2008). It has been suggested that emotions play a crucial role in these challenges; when nonverbal and verbal cues are missing in communication, emotions are more difficult to show and understand, and the emotional connection between managers and their employees may be thinner (e.g. Hertel et al., 2005). In addition, it has been suggested (e.g. Zigurs, 2002) that the focus in virtual teams tends to be more on tasks than relations.

Although earlier studies have highlighted the significance of emotions in virtual teams and how emotions are mediated in a virtual context, the majority of research has focused either on the emotions of employees (e.g. Ayoko et al., 2012; Cheshin et al., 2011; Eligio et al., 2012; Johnson et al., 2009) or the skill of managers in understanding and managing employee emotions (Ayoko and Konrad, 2012; Pitts et al., 2012). However, our understanding of the emotions of managers in virtual contexts has remained very limited (Fineman et al., 2007) and research on virtual leadership lack studies on the emotions of managers as they struggle with the challenges of their daily work. Given the ever-increasing demands of business life and the high expectations of employees regarding caring leadership (Avolio et al., 2014), the work of managers has become more demanding. In a global, virtual environment, managers may face even more challenges and have few opportunities for face-to-face communication. Despite the growing body of research on virtual teams, there seems to be a gap in understanding the work and emotions of managers in virtual contexts. This study aims to fill this gap.

The next section will present an overview of the literature on emotions in virtual teams, summarizing the major findings of earlier studies, i.e. from what perspectives emotions in virtual work have been studied. This is followed by descriptions of the setting for the empirical study and the research method; how empirical, qualitative data have been collected and how the data have been analyzed. The findings section will show the major results of the study and the paper concludes with a discussion of the findings and the implications of the study.

5.4.2 Emotions in global virtual teams

Recent years have seen an upsurge of interest in the study of emotions in organizations. Emotions have been studied on various levels of organizations from the individual level to dyadic relationships, groups, and organization-wide perspectives (Ashkanasy, 2003). The emotion literature uses a broad diversity of definitions and overlapping terms such as emotion, mood, affect, and feelings (Ashkanasy, 2003). According to earlier studies, employees experience nearly a full range of emotions in their workplace, from positive feelings of pleasure, happiness, pride, and power to negative feelings such as frustration, worry, disappointment, unhappiness, sadness, and fear (Basch and Fisher, 2000). Lazarus and Cohen-Charash (2001) list also guilt, shame, compassion, and love as discrete emotions that are found in workplace settings. Emotions include a trigger component such as facial expressions, posture, vocalizations and head and eye movements (Izard, 1992). Leadership entails perceptions, recognition, and management of emotional cues, which are described as emotional sensitivity (Ashkanasy, 2003) or emotional regulation (e.g. Eligio et al., 2012).

Although there is already a lot of evidence that virtuality affects emotions at work, the interplay of emotions and virtual work has remained an emerging field of research (e.g. Sieben, 2007). Earlier research suggests that virtual work decreases a manager's ability to connect employees emotionally (e.g. Purvanova and Bono, 2009). Although communication by technology such as emailing and conference calls does not preclude emotional exchange, people who work together typically do not share their thoughts, reflections, and competences in the same manner as in face-to-face environment (De Paoli, 2015). When working through technology, often without visual and auditory cues, the main carriers of emotional communication are lacking. This loss of emotional information, lack of media and channel richness, delayed feedback, reduced or lost nonverbal cues, and potential misinterpretation create specific challenges and add complexity to managers' work in virtual teams (e.g. Antoniakis and Atwater, 2002; Avolio et al., 2001; Hambley et al., 2007; Maznevski and Chudoba, 2000). Communication quality and quantity also differ in virtual work. Electronic communication is perceived as less warm and email-messages contain higher levels of negativity than face-to-face communication (Berry, 2006; Kelley and Kelloway, 2012; Kurtzberg et al., 2005; Martins et al., 2004). Purvanova and Bono (2009) argue that virtual communication can be expected to have an overall negative effect on leadership behaviors, as well as on followers' perceptions of leadership behavior. It can also remove most of the corporeal cues that have underpinned our understanding of the social construction of emotion, which is axiomatic to organizing and meaning making (Fineman et al., 2007).

Loss of emotional information in virtual contexts has been said to contribute to decreased social interaction, communication, and emotional expression (Jarvenpaa and Leidner, 1999); and more broadly leadership, performance, and conflicts. Researchers generally suggest that emotional dynamics and the social glue of organizational life are challenged in virtual contexts (e.g. Fineman, 2006); virtual work is supposed to induce anxieties due to being out of sight and out of touch, and feelings of isolation stemming from loss of personal contacts (Sieben, 2007). Prior research also reveals that task-oriented, to-the-point communication is the norm in virtual teams, at the expense of social-relational communication (Purvanova and Bono, 2009; Thompson and Coovert, 2003). It has been suggested that these may have an impact on performance in virtual teams (e.g. Ayoko et al., 2012), on trust building (e.g. Pinjani and Palvia, 2013), and on the well-being of managers (Nurmi, 2011). Recent research suggests that knowing about the emotions of others helps collaboration and performance in teams (Eligio et al., 2012). Additionally, during virtual interactions, knowing about the emotions of others and expressing one's own emotions may play a central role in the perception of "humanness" in virtual work (Lortie and Guitton, 2011). In virtual contexts it may be important to share and communicate emotions, for example, by talking about them in virtual meetings or finding new ways to express them virtually.

A considerable part of the research on emotions in virtual teams has focused on the emotional intelligence of managers and on how they can understand and manage emotions. Although emotional intelligence has generally received broad and increasing focus during the past decade in organizations (e.g. Mayer et al., 2008), its importance in virtual teams has also been discussed recently (e.g. De Paoli, 2015). Pitts and his colleagues (2012) studied emotional intelligence, i.e. the ability to detect, understand, and manage the emotions of others (Mayer et al., 2006) as a predictor of virtual team effectiveness. Their results suggest that emotional intelligence is a driver of team viability and emotional intelligence is a critical success factor for virtual team effectiveness because high levels of emotional intelligence facilitate effective communication among team members (Pitts et al., 2012). Most existing research suggests that emotionally intelligent managers make more successful managers in virtual work (e.g. Pitts et al., 2012) thanks to competences such as listening, providing support, and understanding different people.

Alongside increasing interest on the part of scholars regarding integration of emotions into studies on successful leadership (e.g. Ayoko and Konrad, 2012), there has been growing interest in understanding the favorable conditions for virtual team effectiveness and successful virtual leadership (e.g. Lönnblad and Vartiainen, 2012; Purvanova and Bono, 2009; Verburg et al., 2013). Several studies have demonstrated a range of specific competences that a successful virtual manager should have, for example excellent asynchronous communication skills, the ability to provide direction and inspiration from a distance and to act as a liaisons, skill in coordinating team operations in an environment of limited and mediated communications (Zaccaro and Bader, 2003), and skill in engaging and being culturally sensitive and approachable (Davis and Bryant, 2003; Martins and Schilpzand, 2011; Rosen et al., 2006; Verburg et al., 2013; Zander et al., 2012). Other researchers suggest that virtual team managers need to be empathetic and possess both task-focus and relational skills (Bell and Kozlowski, 2002), and according to Joshi and Lazarova (2005), the most important competences for virtual team managers are communicating, facilitating teamwork, motivating and inspiring team members, and goal-setting. In addition, self-awareness and self-management have been emphasized as key competences for virtual team managers. Self-management also means handling or directing one's own emotions with skill (Mersino, 2007).

Self-management skills can include the ability to handle emotions, time, and stress. In their current review of virtual work studies, Gilson and her colleagues (2015) raise well-being as one of the main themes for future research on virtual work. Researchers have generally considered that virtual work can be emotionally charged (e.g. Gilson et al., 2015) as well as physically wearing, given that it takes place across countries and time zones. Longer work hours due to synchronous computer-mediated communication and frequent travelling to face-to-face meetings are everyday issues for virtual managers.

Hence it is not surprising that the ability to handle stress productively has been suggested as one of the main issues and competences for virtual managers (Tyran et al., 2003).

In her study of “worldwide stress”, Nurmi (2011) reveals the unique stressors of distributed work. According to her study, geographical distance, electronic dependence, and cultural diversity hinder information flow and task coordination and create stress-evoking ambiguity and uncertainty. In her study on how virtual team members deal with the stress of distance, time zones and culture, she found that to manage uncertainty and ambiguity, virtual team members tried to cope with extensive emailing, travelling to face-to-face meetings and extending workdays in order to collaborate across time zones. When used continuously, these coping strategies caused work overload and strain. Furthermore, experienced workers with good self-management skills succeeded better by prioritizing and setting clear limits for workloads. Less-experienced workers were overloaded and needed more social support from their leaders and teammates (Nurmi, 2011). Uncertainty, ambiguity, and work overload may cause feelings of inadequacy, frustration, and exhaustion for both employees and managers.

In addition to stress, virtual team members and managers can experience loneliness and isolation (Avolio et al., 2014; Kirkmann et al., 2002; Mulki and Jaramillo, 2011). Cooper and Kurland (2002) studied the experiences of virtual workers and their findings also demonstrate perceived loneliness and isolation, particularly with people who worked alone remotely. In his studies on how to make virtual management work, Rogers (2011) explored the challenges faced by managers and found that virtual managers need specific support to cope with isolation and loneliness. Additionally, in their study of project team leaders and open plan offices, De Paoli and Ropo (2015) found that the peak moment for leaders was when they were physically co-located, physical presence and co-location were regarded positively for the process, for being good leaders, and for good results. In global virtual organizations managers may work far away from each other and lack daily interaction with their colleagues and managers and support from them. In addition, they need to resolve daily challenges fast and typically depend on virtual media, often without the chance of discussing the issue in the office or hallway.

Summary of earlier literature and the research gap

Studies on emotions and emotional intelligence in virtual teams have increased our understanding of emotions in virtual context (Ayoko et al., 2012; De Paoli, 2015; Eligio et al., 2012). In virtual work, with its lack of verbal and nonverbal cues in communication and face-to-face presence, emotions may be more difficult to understand. The competence, emotional intelligence, and ability of managers to manage emotions have been highlighted in previous studies and their role in supporting socio-emotional group processes has also been studied (e.g. Al-Ani et al., 2011). According to earlier studies on emotions in virtual teams, managers should understand and know the emotions of employees, deal with emotions at work, control emotions, and be able to manage them in the virtual workplace.

Despite a general understanding of the importance of emotions, studies on the emotions of managers in virtual teams have remained rare or are totally lacking. The focus has been on the emotions of employees or on how virtual teams deal with emotions. The research data have been gathered mainly from virtual team members and virtual employees (e.g. Al-Ani et al., 2011) and the perspective of managers is missing. How do managers talk about their emotions? What emotions do managers have? Where do these emotions come from? To better understand virtual work, its challenges and particularly the work of managers, it would seem relevant to discover what emotions managers have when working in virtual environments. This study aims to fill the gap in research with a closer look at managers say about their daily work and daily challenges, practices, and routines, and what kind of emotions arise in their work with virtual teams.

5.4.3 Method

My research comprises a qualitative interview study in a European multinational operating in the technology sector. While the company is headquartered in Finland, it has a global network of subsidiaries and branches in more than 60 countries with 800 locations and 70,000 employees. The company operates under a matrix structure with seven geographical areas. Today, many managers are based in Finland but work remotely from their global virtual teams. These teams typically consist of more than 10 members, with members for example from China, India, the United States, Italy, Finland, France, Mexico, and Germany.

The empirical data were generated in interviews, observations, and company documents. The total of 36 interviews was audio-taped in the managers' workplace. The interviews were semi-structured: in addition to prepared, structured questions I wanted to give the research participants an opportunity to talk broadly and freely about their work. One of the advantages of semi-structured interviews was that they gave me the opportunity to add important insights as they arose during the conversation (see Myers, 2013).

In addition to the interviews, I observed the managers and their interaction at work. I learned about their daily work and wrote field notes about the interaction between my colleagues and their employees through various communication channels including conference calls, email, videoconferencing, chats, Lync, Skype, live meetings, and face-to-face encounters. As part of my work, I introduced competence development programs for global managers such as general leadership training and virtual team training, and facilitated leadership development programs in several countries.

In the personal interviews, my main purpose was to understand how managers talk about their work and emotions. As the focus was on managers' talk, I had the opportunity to listen to multiple retrospective stories of virtual work from various perspectives. This approach has truly enriched the case study. The managers were Finnish team leaders who were each responsible for a global virtual team. The interviewees served in capacities such as team leader, supply manager, vice president for technology, vice president for logistics, head of project management, and head of field and technical training. The informants were selected with the help of the headquarters HR function and business managers and by my contacts. The focus was on managers who had global, distributed teams with different set-ups. Interviews were conducted with experienced senior managers such as vice presidents, junior managers such as team leaders with only a few years of experience, and managers in headquarters and subsidiary positions in Finland.

Each manager had from two to 15 employees reporting to them. The majority of the interviewees were Finnish males who were physically based in Finland. Eleven of the interviewed managers were women. All names are pseudonyms to protect the anonymity. The interviews lasted from 60 to 90 minutes, and were conducted in Finnish, excluding two interviews made in English. In order to facilitate data analysis the interviews were digitally recorded and transcribed. After each interview the transcripts were read carefully and the emerging themes were identified. This assisted in focusing subsequent data collection. The research process was an iterative one and followed the practices recommended for constructivist qualitative data analysis (e.g. Charmaz, 2006; Coffey and Atkinson, 1996). Data collection and analysis were intertwined and the process was cyclic. My study has proceeded like a rotating chain; I started from theoretical findings after which I made the first empirical observations and pilot interviews. I then went back to study theory and literature, and continued again with more empirical studies. This was repeated several times in order to delve as deeply as possible into the phenomenon.

In the interviews, the managers were asked to talk in detail about their daily work, to describe their activities and practices when working with their global virtual teams. I wanted to give the informants an opportunity to describe their work openly. I asked questions about daily practices and potential challenges, but did not control or lead the discussion in any direction.

My research participants described their daily work in considerable detail. They spoke of long working days, daily routines, challenges, and the constant pressure of time. They said that they continuously faced high expectations and attempted to carry out their tasks as well as possible. The expectations appeared in various ways and from different sources: ambitious goals, company targets, competence requirements, and employee needs. To cope with these expectations, the managers devised practices that helped them in their daily work. These practices included structures and systems for organizing the work, regular virtual meetings, and other interaction. The company offered them development opportunities such as training in which they acquired skills for virtual leadership. In the interviews, I found that at some point in the discussion the managers started to talk about their emotions when they described their leadership work in virtual teams. They talked about frustration, guilt, and loneliness at work, and also about success, pride, and satisfaction. Most of my research participants talked about continuous feelings of inadequacy at work, which seemed to be one of their primary emotions. At the end of each interview, I typically asked one last question: "if you needed to describe your work in one sentence, what would you say?" As an example, Emily, a project manager, took a long pause to think and then sighed: "the continuous feeling of inadequacy and guilt".

In the interviews, I heard how my research participants talked frequently about their emotions and I started to observe what kinds of emotions they talked about. I then began to look for reasons for those emotions, i.e. where these emotions came from. I found that my informants, who were committed to do their work as well as possible, faced various expectations and tried to meet the ambitious goals with a high sense of duty. To resolve daily challenges, they developed practices such as structures for team work and constantly tried to develop their virtual leadership skills. However, amidst various pressures, they often felt inadequate. In the data analysis, I clustered the quotations in which managers talked about emotions and searched for their descriptions of the reasons for them. Thus, the themes for the empirical analysis became 1) the expectations from various sources, 2) how managers tried to cope with the expectations and 3) the emotions about which they talked.

After clustering and coding I wanted verification for my findings and asked supplementary questions from the selected informants. In this phase I mailed or called several interviewed managers to check whether I had understood the information correctly and asked additional questions about their emotions and the reasons for them. I wanted to give my informants an opportunity to check whether I had interpreted their stories correctly. In addition, I revisited the field notes collected while I worked with these managers and when I followed and participated in hundreds of virtual meetings with them. The interview data were thus supplemented with observations, including notes from the virtual meetings, notes from discussions with the managers, and observations and training material gathered in my notebooks and electronic notes saved as Word and PowerPoint documents.

5.4.4 Findings

The managers described their experiences, feelings, and emotions openly in our discussions. They emphasized that they enjoyed their work and found it meaningful and important; this increased their engagement. However, in all the interviews, the managers also talked about the challenges and their emotions when managing global virtual teams. In the following sections I have described their stories, focusing on talk about their feelings and emotions. I have based these sections on three elements raised by the managers, i.e. expectations, coping, and emotions. The descriptions given by the managers seem to show a certain dynamic, which is illustrated in figure 7 and described in this section.

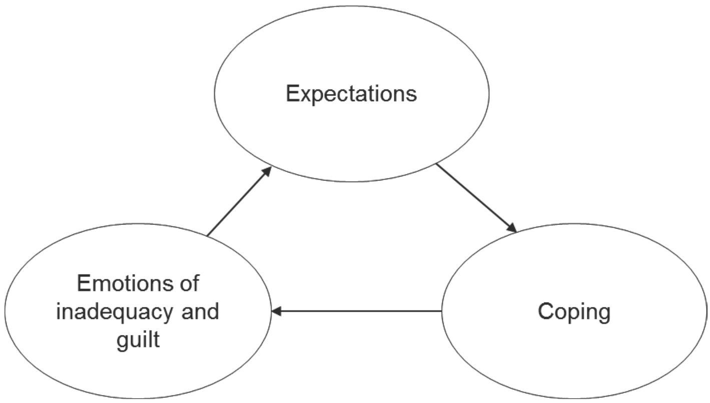

Figure 7. Dynamics between expectations, coping, and emotions of inadequacy and guilt

5.4.4.1. Expectations for the managers

The managers of my study described their daily work as demanding and challenging. They spoke extensively about their busy days, which were loaded with multiple expectations. First, the company requirements for high performance and business results guide target-setting and daily goals. For example, in the company where my research participants worked, annual targets are defined and aligned with a company business strategy, which consisted of five strategy areas, i.e. must-win-battles (the concept developed by Peter Killing, Thomas Malnight and Tracey Keys, 2006). These strategic targets are renewed every three years and applied consistently to the business divisions, departments, functions, teams and finally to individuals, who are evaluated for target achievement in the annual performance reviews. The strategic targets may also include leadership competence targets, and for example in previous years, one of the must-win-battles had been to improve the leadership skills of all managers. This target included sub-targets such as development of the coaching and mentoring skills of managers. The company has a tradition of significant investments in leadership development and the expectations for good leadership skills were generally high.

In addition to the general business targets and performance reviews, the work of managers is guided and measured with competence requirements, competence assessment, and other tools such as 360 feedback, and the annual employee survey called Pulse. Global leadership standards were defined in the global competence model, which included core competences and leadership competences, which were assessed separately. The key leadership competences include decision-making, implementation, winning through people, collaborating, strategic and business acumen, and customer focus. In addition to assessment and annual performance reviews, they were used actively in development of the managers' competences and skills and also in external and internal recruitment. Recruitment needs were discussed with additional competence needs; there was a new emphasis on emotional intelligence and social skills when recruiting new managers or selecting people for new internal positions. The management of the company saw the need for a stronger focus on emotional skills and these requirements were also integrated for the new assessment tools and methods, such as assessment centers. My research participants explained that leading a virtual team also required additional and specific competences such as excellent communication skills (through different channels), cultural understanding, and facilitation skills for virtual work. The managers considered their own skills in these areas inadequate.

Moreover, in addition to the company's expectations, the managers told about the expectations of employees regarding various managerial actions. The managers told me that the employees expected them to be highly professional, but also supportive, empathetic, and caring. They explained that expectations of regular feedback, listening, coaching, and career development were obvious. Although these expectations are all relevant in both co-located and virtual contexts, according to my managers, they are more difficult in a virtual environment. The managers considered their employees competent people who typically expected autonomy and interesting tasks, appreciated a coaching style of leadership and actions, and put pressure on authoritative, elitist leadership. In our discussions, they said that they live "in the crossfire" of expectations. They also described the pressure to meet goals and satisfy employees, and generally to "get more out of the same number of hours". Robert, a director in the maintenance business, explained to me that this was all (ambitious goals and striving for high performance) a part of the company culture:

> *We are seeking more efficiency…, and we are busy all the time. It's our culture. It does not mean anything bad, but it's the reality…Therefore, in the virtual world, motivation and well-being are difficult. If our clock-speed, requirement level and standards keep increasing, how do we ensure that our people stay motivated? And how far can we tighten, and how long can we aim higher? We need to take care of our people…as the managers, I feel we should be like a mother or father for them, define what is best for them, and help them in many ways…*

In the discussions, the managers frequently mentioned specific characteristics in the company regarding expectations and challenges. One of them was working in a matrix organization, i.e. an organizational structure in which people report to multiple managers with different roles. The company used matrix management on a large scale; the functional managers were responsible for functions on an international level and the country managers oversaw work in specific regions or countries, on the "front line," as the managers called it. The matrix management provided several advantages such as flexibility, efficiency, ability to use the expertise of local people, and a high sense of personal empowerment. However, the matrix structure had its challenges. The main issue for the managers was ambiguity; it was sometimes confusing to know who made the decisions, who had the responsibility, and who the relevant stakeholders or colleagues were. Amanda, a director in a global function, described the matrix challenge as follows:

> *..A matrix allows many players to participate. Today, I thought I had prepared carefully for the review, I had asked for feedback from several sources who work virtually with these people... In the review discussion I realized I hadn't remembered to ask from the most important colleagues at all. Again, I realized that the number of stakeholders is huge in our company. All cannot be taken into account. I just don't get any grip on all parties and feel inadequate in this sense.*

Another interesting feature that the managers often pondered was the leadership skills of engineers and "technically oriented" people. Being a technology company, the majority of managers and employees had a technical background with a university degree from a technical field. They often wondered whether their leadership skills were adequate, i.e. whether they were too facts-oriented or had any "leadership charisma". Rachel, a global vice president, gave me an interesting example of a mentoring session she had with one of the managers (her mentee). This manager had received feedback from his employees and now had a new objective, to become more inspiring and motivating manager. Rachel tried to support him and guide him in these skills. The managers often joked that you cannot have a good engineer and a good manager "in the same package". Daniel, the team leader in the product supply department, explained his concerns as follows:

> *...there are so many needs and expectations for us... The minimum seems to be that a virtual manager has good social skills and is extrovert. But again, I think the personality and personal competences can make the difference, we are all different. We cannot say that we are just Finnish engineers and we focus only on technology, we need to have better leadership skills. Managers should be good in so many things....*

Similarly Samuel, the director of the service function, criticized his leadership skills and the need for mental "resistance":

> *...in people leadership, I think I am not very good. I have so much to learn in it, and in my opinion, very few managers in our company are good at leadership skills. You have to take care of important things, also virtually. And in headquarters especially we have so many "time*

bandits", they quickly fill your calendar. How do you find time for your employees, or for thinking, and how can you avoid running around? You need to have a certain resistance…otherwise, things go wrong.

According to the managers, cultural background seemed to impact employee expectations. The majority of my informants had team members in many countries, but most often in China, one of the growing market areas. The managers referred that the Chinese employees value stability, security, and respect for the individual. It was typical that the team members wanted to spend a lot of time together, also outside office hours, having good food and spending time together. In addition, they expected direct guidance, strong leadership, strong support and clear direction from their managers. Moreover, Chinese employees expected their managers to be physically present, which was naturally challenging in a virtual environment. According to many managers, "China is a culture which cannot be managed by emails; cooperation with Chinese employees requires physical presence and a lot of discussion".

The question of presence seemed to be a major concern for most managers, regardless of the nationality of their employees. In the Arab countries, for example, managers were expected to spend time and have coffee with people; this was even "officially" required by their managers. The managers also told me that it was impolite to refuse a dinner invitation in Asian countries, and they often sat for several hours at these dinners, no matter how tired or busy they were. They told me about long working days: after an 11-hour flight and a 7-hour time difference, they had a 10-hour working day and finally a 15-course dinner. All the managers in my study emphasized the need for face-to-face encounters and explained their sincere attempts to build trust and better mutual understanding with their employees by meeting them face-to-face as often as possible. Although new technology such as video conferences and Lync meetings with participants' pictures had improved virtual collaboration and awareness of the presence of others, they could not fully replace the physical presence of managers (or team members). The managers explained to me that they preferred to see a person face-to-face; the body language, personality, and gestures all told them more about people. They explained that it was important to arrange regular face-to-face meetings. In reality, however, the team was typically able to meet only a few times per year. Hence many managers felt that they met their employees too rarely. James, a manager in the R&D department, said he wants to show his employees that they are important for him and therefore tries to have the personal meetings physically. James also explained that physical presence demonstrates his own commitment better than a telephone call.

According to James, it was important for him to see the eyes:

…it is how you look at him, and everything else, expressions on your face, there are things which don't transmit via phone or live meeting. In the case of conflict, when emotions are in play, it is important that we

are face-to-face, we all have then more tools and weapons, the phone is only for the first aid. To get the situation resolved, I want to meet face-to-face; I want to prioritize the case with a physical meeting. The price of face-to-face presence is naturally the highest, but you dedicate 100% time for the person then.

Like James, Daniel, a team leader, explained that managing by walking around is not easy with virtual teams:

…they just need this, physical and mental support on a daily basis. If you are not there yourself, you can't see and feel the atmosphere, it's impossible. I have realized that people need me a lot, to be there with them, although they are competent and independent and their competences are better than mine. But they need me, (I need to) go there and ask how they are doing, and walk around…

Like the descriptions of James and Daniel above, the expectations of presence bothered the managers of my study a lot and caused them constant feelings of inadequacy. They pondered the issue of "virtual presence" and said that they had too many places to visit; the globe is a big workplace. The managers described the importance of face-to-face meetings and site visits; during visits to their employees' home office or the sites they got a better sense of their distant employees' communication styles, personalities, and how they solved problems and worked with other colleagues. They also learned about their employees' personal situations such as whether they had family or other personal issues. Hence they tried to focus on regular site visits and on spending adequate time with their employees.

Finally, despite all concerns around presence, the data provide various examples of how the managers learned to live with virtual presence and how they created new ways to be present for their virtual employees; they wanted to let their employees know that they are available for them, more or less always, no matter where they were, and thus wanted to create a sense of presence, for example by showing up "green" in virtual chat rooms. In addition, they tried to answer the employees' questions quickly and create the feeling of availability.

I learned from the interviews that in addition to the expectations of the company and the employees, the managers also defined high standards and expectations for themselves. These internalized expectations came basically from a strong sense of duty and commitment to do their best all the time. They told me how they want to motivate and empower their employees and build effective teams. The managers talked frequently about high competence requirements and concern that they might not be able to meet those requirements. According to my interviewees, leadership was considered more difficult in a virtual environment. One of the managers in a service function summarized his thoughts and said that his major concern is that his leadership work was becoming more difficult as it became more virtual. He elaborated this by saying that he knows the basics of good leadership, but cannot implement them adequately when managing global virtual teams.

5.4.4.2. Coping: means to organizing work and cope in the daily life

In addition to balancing amidst various demands and expectations, the managers told about the busy nature of the work, the shortage of resources, and the continuous lack of time. Although the pressure of time is certainly a reality in all business environments, the managers of my study argued that "virtuality" made the pace of their work faster. The number of emails, telephone calls, conference meetings, chats and other collaboration had continuously increased, and filled managers' days. Coping with the pressure of time and striking a balance between personal and professional life seemed to be among the greatest daily concerns of managers.

A manager's typical day started in the early morning (i.e. 6 to 7 am), when (virtual) meetings began with Asian employees and colleagues who were 7 to 8 hours ahead and already finishing their business day. These meetings were usually conducted by Lync or telephone. The business day in the office was typically long, because the managers often had meetings in the evening after the normal business hours when their American employees and colleagues (7 to 9 hours behind) got up. The number of business cases, customer requirements, and ongoing projects required multitasking and simultaneous participation in numerous tasks. Many of my interviewees talked about the new "clock speed"; the world is changing faster than before, the scope of work is growing continuously, and the pace of change keeps accelerating.

The managers spoke extensively about virtual communication as an enabler and an issue in their work. According to all of my informants, the exponential explosion in communication technology had resulted in a significantly greater frequency of daily interactions. The managers had regular daily, weekly, and monthly virtual meetings which helped them to stay in touch with their employees. For example, monthly "rush-calls" included the business follow-up and forecast for the next quarter, market outlook, and the main customer movements. In addition, almost all members in virtual teams belonged to multiple teams, and the number of participants in the virtual meetings had also increased; it was possible that one meeting had up to 30 participants in different parts of the world. Virtuality made this possible. According to my interviewees, the need to have all potential team members and decision-makers virtually present caused inefficiency and frustration. Daniel, a team leader, explained that there was also "over-commitment" or "over-engagement"; to find a consensus, many people were involved in decision-making and everyone's opinion was asked. These survey rounds called for time, patience, and tolerance on the part of the participants.

To cope with the increase in virtual work and daily interaction, the managers tried to streamline and simplify their work. Many of them talked about prioritization and reduction of duties and about the processes and practices they devised to survive their daily tasks. They described how they tried to learn to manage their time and handle the expectations by developing processes and routines. They told about structures and systems that helped them and their employees work together. The managers also emphasized the importance of planning. Luke, a sales team manager, explained that he was able to cope with the daily schedule with systematic plans:

> *Careful planning is a must. I have booked team meetings in advance for the whole year, 12 months. In addition, I plan for regular 1:1 meetings with all my employees. I need to prepare every meeting carefully, I have found out that it takes a lot of time to prepare the virtual meetings but it pays back. In addition, I use an online social platform to follow up where we are going on a daily basis. Usually, the first thing in the morning, I ask everyone where they are today (in which country), and what is on the agenda. I have tried to create these practices to improve our collaboration and team spirit.*

In addition to the ability to structure work practices, self-management was seen as a major competence. Self-management was seen as way to handle stress, the pressure of time, and work-life balance. Jason, the head of project management, described this as follows:

> *I have three continents and I need to hold switches on, all the time. It is challenging, and self-management is the key for me. It means managing time and tasks, and keeping duties and deadlines in mind, and the big picture. My calendar is full, therefore I need to choose the places I need to go and can have an impact. I feel inadequacy when I think if man controls time or vice versa. At times I think I do control, but often it is just reacting. Inadequacy is a permanent state, the goal is to do more with less, and more effectively and with better procedure. If processes don't improve, improvements must be taken off own backs. Hard work is appreciated in our company, but I think we need to look for better processes.*

In addition to time management, the managers emphasized the importance of training. To improve their skills, particularly in virtual leadership, they received training in virtual leadership. However, many interviewees explained to me that either they were too busy to participate in the training or it was provided "too late". They had developed workable practices with their teams and the experience helped them a lot. James, the director of the R&D department summarized: "I had to find the way to work by myself, and I had to learn everything through trial and error". Robert, the vice president for a global function continued:

We should all have at least a quick training about what it means to work in a virtual, matrix organization. What is good leadership in a matrix, what is less good…? We should not leave people alone with their virtual matrix organizations. It's such a difficult role. Another area (to be learned) is good habits. I mean the do's and don'ts of a virtual manager, the best practices in virtual leadership… I have not received any training and I truly needed it a lot.

Robert's example tells about his considerations about virtual leadership and how managers call for more support in their managerial work. Although Robert's thoughts were supported by many other research participants, the more experienced the managers were in their global role, the fewer the difficulties they encountered in their job.

5.4.4.3. Emotions of inadequacy and guilt

In my data most of the research participants talked extensively about the hectic business life, demanding expectations, and ambition to grow and improve results and performance. They described small and big wins in their work, successful business cases, happiness and pride in what had been achieved. They enjoyed being a part of a successful global company, and received plenty of satisfaction from their work. However, most of my informants also talked about continuous inadequacy, frustration, loneliness, and even guilt in their daily work. Inadequacy seemed to be even a primary emotion for most of my informants. To understand the reasons for these emotions of inadequacy, I asked the managers to talk about them, and identified the following factors.

According to the managers, the main reasons for the emotion of inadequacy were the continuous pressure of time and contradictory expectations. Although processes and structures improved the quality of my informants' working life, expectations and requirements caused constant concern and stress. As described earlier, most managers of my study worked under constant pressure of time, and described their work as "living in a 24/7-rhythm". They told me that it was difficult to satisfy all the needs and therefore they felt inadequate, particularly regarding their leadership work and inability to support their employees as much as they should. Alex, the global process owner, returns to the challenge of presence and describes his bad conscience:

> *Everybody has more work than they are able to do. We have not enough hours to be present where we should…It is work-life balance, how much I am present in the life of my family and of my employees. I primarily have a bad conscience all the time. The problem of presence is a seed of inadequacy, you should be present but you can't.*

According to the managers, there were naturally individual differences in team members regarding the need for presence and face-to-face encounters. Some employees needed frequent face-to-face meetings, while others were more independent and seldom needed encounters. Again, in certain cultures the need for presence seemed to be more important. The managers told me that in China, for example, you need to be physically present to learn to know people and build trust. In practice this means that you have to spend time in informal discussions, at dinners with Chinese colleagues, and be there physically. Amber, the global HR manager, was on assignment in China for two years, and described her observations as follows:

> *The challenge for virtual managers is to avoid looking and being busy. Here in China, people appreciate if you have time for them. Sometimes people here criticize that managers are too busy and spend time during their site visits going shopping, instead of having dinners with them. Being too busy is not good; the employees say that they want us to see the same daily life that they live. Sometimes I feel bored and tired of these dinners, they always take a long time, usually the whole evening, but they seem to be very important for Chinese people.*

The pressure of time and the issue of presence caused emotions of inadequacy to the managers. They often felt that they tried and wanted to do their best, but they felt it was not enough. They said that the "clock speed" had increased in recent years, and simultaneously business cases had become more complex. Brian, a senior vice president in a global function, had been working for the company for over 20 years and talked about his experiences as follows:

> *Nowadays we handle different topics in real-time and issues are escalated fast. In earlier years, we used to wait; now everything is on the Table immediately. Daily life is more challenging. I need to struggle to find a rhythm to do my work, different ad hoc topics ricochet to the daily agenda all the time. For example, I find out about a problem in an important project or product and the solution has to be found instantly. I feel that my leadership gets worse because I am too busy, I feel that I can only put out the biggest fires…. In my opinion, the worst kind of management is management by crisis…*

Brian gives us a good example of managers' work in global virtual teams: the tensions between expectations and the pressure of time, living "between a rock and a hard place", as formulated by many managers. The expectations from the employer and the employees were pushing them in different directions; company objectives required growing numbers and better results, while employees needed support, face-to-face time, and coaching. In addition to feelings of inadequacy, a number of my informants talked about frustration caused by haste, virtual work overload, and an ever-increasing volume of global work. Robert, a director for a global function, had recently started in a new position with ambitious objectives:

> *When I received this position as the head of the global function, I decided to make this work, I decided to succeed. After a while, I realized how big the globe is. I now feel it's a mission impossible…there are many issues around and no matter what I do, I cannot control and understand them all. I feel inadequate in situations when I can't help my virtual employees. For example, one of my employees, he always says everything is ok, but I know, I can hear it is not. Then I have a bad*

conscience, to realize I just can't do everything, and I need to select priorities…Simply because nobody is capable of doing all this…

In the interviews, some managers also talked about loneliness, both mental and physical. In some cases, a virtual environment created anxiety by requiring managers to adapt to different national and working cultures and lose control of virtual employees. In these situations, managers were often alone; their colleagues were located in different parts of the world and had no "discussion partners". The managers found it difficult to find colleagues or interlocutors from whom to ask advice. Almost in every case, the managers of my research participants were sitting in a different country, and different time zones made ad hoc questions, for example, impossible. Similarly, their employees were seldom located in the same country or office as their managers, and communication took place mostly in virtual media. Amber, the global HR director, described her experiences as follows:

Sometimes I feel lonely, because I don't have anyone to talk with, I mean particularly on the same level, the unit managers are often alone, especially if they work on higher levels of organization and their manager is sitting on another continent. You don't want to reveal your weaknesses to the country manager, but (you) need someone to talk with…you don't want to call to your manager on each problem and sound helpless, proper discussions take place when we meet physically. The use of time causes the feeling of inadequacy, my employees want me to be there and listen to them. In global calls, I often feel outsider; there are many participants on the line, but they are in many ways far away.

In addition to the high expectations and pressure of time, and the feeling of insufficient competence, the managers also talked about the importance of experience. The lack of experience was seen as one reason for emotions of inadequacy and guilt. The managers explained that in the early phases of managing their virtual teams they had struggled much more, but now had the benefit of experience. The more senior managers in this study explained that they gradually learned to live with the continuous pressure of time and acquired "resistance". They learned to accept that there is never enough time for all their duties. Brian, the director for a global function, described his learning as follows:

I have become older and have learned to take it easier, I have instead learned to give myself time to do something else, and nowadays I take time for hobbies, too. I have become more selective, I just don't participate in everything anymore, but I have learned to prioritize only the important ones for me, it's the meetings in which I can contribute, if I can't, then I skip…

Like Brian, Megan told me that she carefully selects the meetings that she attends. Kevin told me that he lets his assistant choose only the most important virtual meetings. One of the my research participants summarized his emotions as follows: "you finally realize that this world will be never ready; there are so many things to do and not enough time, you always find yourself inadequate and you have to live with it....". His statement succinctly describes the plight of managers in virtual environments; the managers in my data were living "in the crossfire" of various expectations and ever increasing demands, but worked with a strong sense of engagement and duty, positive drive, and passion with their global virtual teams.

5.4.5 Conclusions and practical implications of the study

Earlier research on emotions in virtual teams has focused on how managers deal with emotions in virtual contexts, how they use their emotional intelligence to lead their teams (e.g. Ayoko et al., 2012; Eligio et al., 2012), and on the challenges they face in their daily work (e.g. Joshi et al., 2009). We already know rather much about the antecedents of successful virtual leadership and the competences required in virtual leadership (Bell and Kozlowski, 2002; Joshi and Lazarova, 2005; Martins and Schilpzand, 2011; Verbug et al., 2013), but our understanding and knowledge of managers' own emotions in virtual work has remained limited. However, to understand managers' work and to be able to support them better, we also need to know about their emotions. My results suggest that given the contradictory, varied, and even drastic expectations of a fast-paced global virtual environment, managers have various emotions, and in addition to joy, pride, and satisfaction, they often feel inadequacy and guilt.

In describing their daily work, my research participants told about the hectic schedule and multiple expectations they faced. First, business targets defined the basis for ambitious goals and competence requirements. Having a strong sense of duty, the managers worked hard to meet these goals and to secure revenues and results. Second, the employees expected strong support from their managers, not only in achieving their business goals, but also in motivation, inspiration, coaching, and guidance for career plans, development, and daily life. Moreover, the managers felt that their employees expected them to be more present at the workplace. Although the new technology, such as video webcasts, was able to create an awareness of the presence of others, technology and contextual factors generally moderated the effects of leadership in virtual teams (cf. Kahai et al., 2012). It was also obvious that the team members had very different culturally-based leadership expectations and preferences. This was found already by Zander (1997) in an extensive research project on the overwhelming challenges faced by multicultural team leaders in a global organization. According to Zander (1997), different leadership styles were preferred in different cultures: some people preferred a directive style while others preferred a participative style, and these differences made the work of global managers demanding.

The question of presence seemed to dominate many discussions we had; the managers highlighted the expectations of physical presence and agreed that virtual presence could not replace physical presence. My findings are in line with several recent studies of virtual leadership (e.g. De Paoli and Ropo, 2015) which contend that physical face-to-face meetings are vital to virtual teamwork and leadership. Hinds and Cramton (2014) introduced the concept of situated coworker familiarity and described the pivotal role of site visits among virtual and distributed workers; the physical meetings established closer ties, bonds, and familiarity in virtual teams and generally increased the satisfaction of virtual workers. In sum, the scope of a manager's job was seen as vast and demanding and it included a great deal of pressure stemming from various expectations.

To cope with expectations and virtual work overload, the managers built structured procedures, routines, and patterns to arrange their work: weekly and monthly meetings, site and other face-to-face meetings. These processes and practices were also targeted to enhance the success and performance of the team. Despite attempts by managers to streamline and simplify work, they felt that the pressure of time in virtual environments was stronger than that in co-located work, which required real-time responses and involved a virtual work overload. In addition, in virtual work the managers said that there were fewer opportunities for taking into account employees' different situations; according to them, they could not sense the atmosphere at their employees' workplace, and they could not convey passion or energy to their employees.

To improve their prospects for coping, the managers developed their competences and skills to lead virtual teams in company training interventions that were particularly salient for those who lacked virtual work experience (see also e.g. Dineen, 2005; Gilson et al., 2014). For example, coaching leadership, i.e. using dialog and communication to discuss goals, making questions, listening, guiding, advising, and empowering (Ellinger et al., 1999), was considered an important competence for virtual managers. The existing literature on virtual leadership highlights the importance of investing in the coaching skills of virtual managers and encourages them to adopt a new kind of leadership styles, such as participative leadership (Rogers, 2000; Heslin et al., 2006). In virtual contexts, the participative approach to leadership and coaching, for example, may be challenged; more time for dialog is needed, physical presence is usually required or preferred, and access to good communication media is important.

According to the findings of my study, the global virtual team managers felt inadequacy and guilt in their work due to the various expectations they faced. Although they talked about positive emotions such as joy, satisfaction, and pride, inadequacy, guilt and loneliness were described more often. The managers said that the feeling of inadequacy was the result of the "rat race," of their inability to meet the expectations of the company and all the needs of the employees. In addition, the managers talked extensively, without prompting, about their concerns regarding their leadership skills and desire to be better leaders and about their ways of coping with the challenges. These elements followed each other dynamically in the managers' work (see figure 6). To meet the expectations (including those they had created themselves), the managers devised solutions for coping in their work, but also felt inadequacy because they were also unable to meet all the requirements of ideal leadership (figure 6).

The managers of my study found their job meaningful and important and were committed to achieving better business results. However, given the increasing demands for efficiency in a challenging economic situation, the managers described their work as demanding and challenging. The findings of my study suggest that together with the hectic pace at work, the various expectations cause feelings of inadequacy and guilt for managers of global virtual teams. In an ambitious business environment, the managers were pressured to focus on business results; the busy nature of the work and the shortage of resources made them focus more on achieving goals than on supporting employees. My findings support earlier evidence that task-oriented communication is becoming the norm in virtual teams (Purvanova and Bono, 2009; Thompson and Coovert, 2003) in the limited time for personal encounters. The managers told me that they found themselves "between a rock and a hard place"; they attempted to do their best to achieve the business goals and at the same time to support their employees despite distance, time zones, and a lack of opportunity to meet them face-to-face.

Practical implications of the study

The findings of this study help us to understand the daily work of managers and the need for organizations to support managers. Overall, we should not expect global managers to be capable of handling anything and everything. Organizations need to support virtual managers actively, develop and provide leadership programs for virtual leadership, start training and development programs in an earlier phase, and develop both managers and employees for virtual work. Mentoring programs, for example, provide managers with the support and guidance needed to cope in their work. In recruitment of managers for virtual teams, companies should focus on competence requirements in virtual work, such as excellent communication and social skills, and take these competences into account when searching for global leaders.

Experience in virtual work seems to help senior managers. On the other hand, it will be interesting to see how "digital natives" work as global managers. Having grown up with smart phones, computers, and the internet, they are more comfortable with technology for communication and relationships, and may find virtual working easy or in fact the only way to work.

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This thesis addresses managerial work in global virtual teams. It gives voice to the managers themselves with the aim of enhancing our understanding of what the work of virtual managers is all about. The findings of the thesis show that virtuality alters the nature of cross-cultural managerial work. Virtual contexts limit and narrow the latitude of managers to do their job, to which conflicting expectations pose constant challenges and lead to feelings of inadequacy. This research brings new insight to the understanding of the managerial work, management practices, and emotions of global virtual team managers. The findings call for new leadership competences such as virtual communication and recruitment skills for the managers of global virtual teams.

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