What Role Do Norms Play in Global Teamwork? The Influence of Cultural Communication and Coordination Norms on Team Processes in Internationally Distributed Teams

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ABSTRACT

WHAT ROLE DO NORMS PLAY IN GLOBAL TEAMWORK? THE INFLUENCE OF CULTURAL COMMUNICATION AND COORDINATION NORMS ON TEAM PROCESSES IN INTERNATIONALLY DISTRIBUTED TEAMS

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Internationally distributed teams (IDTs) face many challenges; however, there is a lack of research on what makes IDTs successful. In addition, research has yet to assess how IDTs develop and which team processes facilitate team functioning. Norms have played an important role in team development models of traditional, meaning collocated and homogenous, teams. The current study assesses the role of norms for team development in IDTs. More specifically, this study examines the effects of culture-driven communication and coordination norms on team interactions and on the creation of team norms which subsequently affect team processes such as cohesion, trust, motivation, and commitment.

The current study uses a longitudinal, process-oriented, qualitative design to observe student teams during two international collaborations including students from the USA, Finland, and the Germany. Using participant observation, the authors were able to

follow team interactions and development over the course of each of the collaborations. Using grounded theory for data analysis, four unique team development patterns emerged from the data, “smooth sailing”, “on & off”, “bumpy start”, and “non-committed” teams. Each of the four patterns had its own characteristics, key turning points, and creation of team norms.

The successful teams (i.e., “smooth sailing” and “on & off” teams) showed consistent communication patterns throughout the collaboration and experienced little conflict. They quickly created beneficial team norms that helped them to build rapport between team members, to keep each other motivated and committed to the exchange, and to manage conflict successfully. “Bumpy start” teams encountered conflict early in their team’s history which triggered the creation of conflict management norms. However, they did not manage to create similar levels of rapport, motivation, and commitment as the successful teams. Team members in the “non-committed” teams lacked commitment and motivation from the beginning. These teams failed to maintain consistent communication among team members and to create beneficial team norms.

The beginning of the email exchange as well as most of the conflict the teams encountered were influenced by cultural differences in communication norms between the team members. Accordingly, culture-driven communication norms were the basis for many of the team norms that the teams created as a response to their experiences. Implications for practice and future research are discussed.

1. Introduction

"We don't see things as they are; we see things as we are." Anais Nin

"Truth on one side of the Pyrenees may be falsehood on the other." Blaise Pascal

The situation is an increasingly common one: team members are located in different parts of the world and must work together on an interdependent task. Nevertheless, the effectiveness of internationally distributed teams (IDTs) often remains below expectations (Earley & Gibson, 2002). More often than not, members of IDTs have never met each other in person (Earley & Gibson, 2002; Hinds & Bailey, 2003). Their task is usually ill-defined and has to be completed in a technologically-mediated environment that is lacking in social cues, contextual information, and shared experiences, and that is compromised further by technological failure such as lost emails or bad phone connections (e.g., Cramton, 2001; 2002; Jarvenpaa & Leidner, 1999; Montoya-Weiss, Massey, & Song, 2001). Moreover, team members of IDTs are ethnically and culturally diverse. They approach their tasks and ensuing problems with their own set of learned, culturally appropriate tools. It is quite common that these tools, although appropriate in one culture, are inappropriate in another culture.

In order to work together effectively, members of IDTs have to form dependable relationships and negotiate rules for communication and coordination. But how do IDTs

successfully evolve into a team? Many models for group development in traditional teams (i.e., culturally homogenous and collocated teams) describe developmental stages teams need to go through (for a summary of team development models refer to Chang, Duck, & Bordia, 2006). However, no such model exists for team development in an internationally distributed context. Furthermore, group researchers have bemoaned a lack of research examining the actual process of team development (e.g., Kozlowski & Klein, 2000; Kozlowski, Gully, Salas, & Cannon-Bowers, 1996) as well as a lack of knowledge regarding the specific team processes that make IDTs successful (e.g., Montoya-Weiss et al., 2001). It is the purpose of the current study to shed light on team development in IDTs and to describe successful team processes related to communication behaviors in IDTs.

Norms are likely to play an important role in guiding, defining, and enforcing appropriate communication behaviors (e.g., Argote, 1989; Feldman, 1984; Hackman, 1976). Group norms are "the informal rules that groups adopt to regulate and regularize group members' behavior" (Feldman, 1984). As previous research has shown, group norms are crucial for group processes and outcomes such as coordination, managing conflict, and helping behaviors in traditional teams whose members are collocated and homogenous with regard to diversity (Argote, 1989; Amason & Sapienza, 1997; Ehrhardt & Naumann, 2004; Hackman, 1976; Hackman & Walton, 1986; Marks, Mathieu, & Zaccaro, 2001; McGrath, 1984). In addition, several previous stage models of group development emphasize the importance of group norms in guiding interaction and managing conflict (e.g., Tuckman, 1965; Moreland & Levine, 1982).

But how do team members create the norms that regulate their team's behaviors in an internationally distributed environment? Each team member already comes equipped with a set of communication norms that define appropriate behaviors in his or her own cultural context. How do differences between these culture-driven communication norms hinder team processes in a distributed environment, and how can team members manage their cultural predispositions to become effective team members?

Teamwork in an internationally distributed environment is significantly different from teamwork in a traditional setting with regard to interaction and communication patterns (e.g., Cramton, 2001, 2002; Jarvenpaa & Leidner, 1999; Maznevski & Chudoba, 2000; Montoya-Weiss, Massey, & Song, 2001). The technologically mediated nature of the distributed context poses many challenges to norm creation and enforcement such as delayed detection of differences in experiences, preferences and contexts, and environmental ambiguity (e.g., Graham, 2003; Hinds & Bailey, 2003; Mark 2002; Mortensen & Hinds, 2001). In this context, monitoring normative behavior and sanctioning non-normative behavior might be difficult. On the one hand, the richness of contact and communication necessary to detect non-normative behavior and subsequently to create the conformity pressure to reinforce the established norms might be lacking (Graham, 2003). On the other hand, team members with different cultural backgrounds value different models of teamwork (Gibson & Zellmer-Bruhn, 2002); thus, it might be difficult to reach agreement on a joint group norm.

Nevertheless, many of the characteristics that distinguish IDTs from traditional teams, such as globalization and distance (e.g., telecommuting, distributed work, etc.)

(e.g., Daly, 2007; Earley & Gibson, 2002; Gibson & Gibbs, 2006; MacDuffie, 2008), communication via technology (e.g., Driskell, Radtke, & Salas, 2003), and ethnical and cultural diversity (e.g., Frank, 2001), are likely to become increasingly common in the years ahead. Therefore, insights regarding team development gained in an IDT context will likely have implications for many other non-traditional team contexts. It is important to identify team processes that help manage the challenges that are particular to this kind of work.

Emergence of team processes such as team norms, however, can have different causes and can take different evolutionary paths (Kozlowski & Klein, 2000). Kozlowski and Klein argue that the actual process of emergence needs to be studied to fully understand the conditions under which constructs and processes emerge. Supporting this argument, the current study finds four different team development patterns. These four team types were named: "Smooth sailing", "on & off", "bumpy start", and "non-committed" teams. The teams differed in three main factors: consistency of communication over time, experiences of conflict, and emergence of team norms. The goal of the current study is to explore these different team development patterns in detail to determine factors for successful team development and processes in an internationally distributed teamwork context.

In the following sections, the current study will briefly review research on group development in traditional teams as well as the role that norms play in team development. Furthermore, the effects of cultural differences on teamwork will be explored.

Team Development

Over time team members develop effective ways to collaborate with each other to ensure team functioning. Several group researchers have attempted to capture this process in group development models. A common theme among these models is the focus on discrete changes over time, while the specific kinds of groups and the assigned task often differ (e.g., Chang et al., 2006). One major difference among group development models is that some conceptualize the development process as a linear process in which earlier events affect later events (i.e., path dependent) while others conceptualize it simply in terms of changes over time (i.e., non-path dependent) (Chang et al., 2006). Two representative examples of these two different kinds of models are Tuckman's (1965) model and Gersick's (1988) punctuated equilibrium model. While Tuckman's model postulates stages of group development in a hierarchical fashion, meaning groups have to master lower stages to reach higher stages of group development, Gersick (1988) finds that teams show time sensitive patterns of activity that are linked to the organizational context in which groups work.

Norms and Team Development

Both models highlight the essential role of norms for group functioning. Norms guide behavior, reduce uncertainty and ambiguity, and create a group identity (Feldman, 1984). They are created as a response to conflict about goals, task procedures, and authority. Because norms are not static and are constantly negotiated among group members (Lewin, 1947; Schachter, 1951), norms may serve as a critical mechanism for understanding intra- and inter-group dynamics, being both a key input as well as a key outcome variable in intra- and inter-group interactions.

The current study focuses in particular on communication norms. As previous research shows, communication behaviors underlie all team interactions and affect all team processes (e.g., Keyton, Ford, & Smith, 2008). In turn, communication norms affect a variety of team variables such as helping behaviors (e.g., Ehrhardt & Naumann, 2004; Perlow & Weeks, 2002), performance (e.g., Argote, 1989), or cohesion/satisfaction (e.g., Christensen, Rothgerber, & Wood, 2004; Hackman, 1976).

According to Cialdini and Trost (1998, p. 153), "the most important characteristic of norms is that they do not exist if they are not shared with others." The degree to which norms are shared varies and determines the strength with which the norm influences behavior. If norms have a range of tolerable behavior that is too wide or if group members show little agreement on the most appropriate behavior, it is likely that the norm does not elicit strong behavioral responses.

Norms and Culture

Communication expectations differ across cultures (Gibson & Vermeulen, 2003) creating different cultural norms for appropriate communication behaviors. Not only are there norms about the appropriate content but also about the appropriate process of communication (Gibson & Gibbs, 2006). These cultural differences likely cause communication clashes (Gibson & Zellmer-Bruhn, 2001). In newly formed IDTs, variability in characteristics of cultural norms will make it difficult to create and agree upon a common set of norms as the team members will have to adapt their existing norms for communication and collaboration.

Cultural norms can be defined as collective expectations of appropriate behavior

in a specific context (Köhler & Berry, 2008). They are an expression of cultural values as they define desired, appropriate social behavior and ensure that undesirable social behavior is sanctioned (Schwartz, 1999). More specifically, culture-driven communication norms are "yardsticks that often unconsciously or implicitly provide a range of appropriate communication behaviors in a society" (Köhler & Berry, 2008, p. 144). These culture-driven norms affect how individuals perceive, understand, and interpret information and how they react to a given communication event (Philipsen, 1997; Philipsen, Coutu, & Covarrubias, 2005). When members from different cultures interact, it is likely that their respective behavioral expectations will clash and that they will find themselves in an incoherent social context that is hard for them to interpret and that is influenced by a power struggle between the team members' cultural values (Gumperz, 1982; 2001). This can create challenges to effective group functioning, successful group processes, and subsequently team development.

In order to establish what makes IDTs successful, it is important to first examine the factors that constitute appropriate communication behaviors in different cultures and how different communication expectations affect team member interactions. Conflict that is based on cultural differences can then be analyzed more in-depth, and subsequent consequences for team processes can be better understood.

Cultural Norms and Geographic Distribution

In addition to the multicultural context of IDTs, norm creation and enforcement are particularly difficult in a distributed context. The fact that cultural norms are often implicit and unconscious (Kitayama, 2002; Kluckhohn & Strodtbeck, 1961; Oyserman,

Coon, & Kemmelmeier, 2002; Schwartz, 1999) makes it likely that team members in one location neglect or underestimate the influence that culture has over and above individual differences on the international colleague's behavior. Moreover, being that it is rather common that members of internationally distributed teams have never been to the other location or have met their international colleagues (e.g., Earley & Gibson, 2002; Hinds & Bailey, 2003), team members often don't know enough about the other culture to be able to interpret certain behaviors as cultural or personal (Osland & Bird, 2006).

Conflict is likely to result from cultural differences among team members as well as from differences in locations and differences among the individuals on the team (e.g., Hinds & Bailey, 2003). The resulting frustration about the process in conjunction with the higher likelihood of committing the fundamental attribution error (Cramton, Orvis, & Wilson, 2007) increases the chances of intra-team conflict and decreases trust among team members. This also will affect the creation of effective team norms for the IDT. In the long run, this can develop into a vicious circle as team members who are frustrated with the other side and who don't trust their international colleagues often fail to share enough information with their international team members (e.g., Jarvenpaa & Leidner, 1999). Hence, geographic distribution can even strengthen the negative effects of cultural differences in an IDT environment.

Using Team Norms to Manage Challenges of IDTs

To deal with these communication challenges, IDT researchers often recommend an initial face-to-face meeting among all team members to build relationships, trust, and team norms for collaboration (e.g., Armstrong & Cole, 1995; Hackman & Morris, 1975;

Zaccaro, Ardison, & Orvis, 2004). These recommendations are based on traditional models of team development (which were discussed earlier), in which teams negotiate their collaboration early on and agree on rules to minimize conflict.

Both Tuckman (1965) and later Gersick (1989) found that high performing teams often differed from lower performing teams in the fact that they had experienced more process conflict in the beginning of their collaboration (i.e., storming) during which the team members discussed how the task was to be accomplished and how team members were supposed to work together (i.e., norming). Similarly, research by Bettenhausen and Murninghan (1985) showed that if teams cannot overcome the storming phase, it is likely that negative behavior patterns among team members are going to continue.

In culturally diverse teams, Watson et al. (1993) found similar patterns. Watson et al. observed that when comparing project work of culturally homogenous teams and culturally diverse teams over the course of fifteen weeks, homogenous teams outperformed the diverse teams for up to nine weeks into the project. In the beginning of their collaboration, culturally diverse teams spent a lot of time negotiating what was important to them and how to work together. In week nine then, diverse teams performed as well as homogenous teams. At the end of the project, diverse teams actually outperformed homogenous teams on several aspects of the problem-solving task.

Nevertheless, it remains unclear how IDTs experience the storming and norming phases and whether they can create team norms without meeting face-to-face. Unlike in Watson's multicultural teams, geographic dispersion is likely to disrupt the norm creation and enforcement process.

Norm Creation and Enforcement in IDTs

Research on distributed teams has identified several challenges to communication, all directly or indirectly related to the sharing of knowledge and context across geographical distance. Sharing of context and communication are important for norm development and enforcement, as well as for the negotiation and creation of new team norms (Schachter, 1951).

For example, one reason why norms evolve is that previous team interaction has been considered ineffective by team members. Learning from these past experiences, team members try to change and improve existing norms of working together (Feldman, 1984; Graham, 2003). However, team members of distributed teams often don't realize that their interaction patterns are flawed, and communication failures can go undetected for a long time (Mark, 2002). Furthermore, team members are more likely to attribute communication failures to personal characteristics of their remote team members rather than to the context of computer-mediated communication (Cramton, 2002) or cultural communication differences (Berry, Carbaugh, Innreiter-Moser, Nurmikari-Berry, & Oetsch, 2009) and therefore, might be less likely to perceive the need to create or change corresponding group norms.

Being that many contextual cues get lost in computer-mediated communication (e.g., Cramton, 2001; 2002; Fiol & O'Connor, 2005), it is harder to adapt norms from observations of other team members' behavior (i.e., descriptive norms; Cialdini & Trost, 1998; Finholt & Sproull, 1990). Similarly, Costarelli (2005) shows that norms and their importance need to be made salient, otherwise team members might not feel the

obligation to follow them.

Given this previous research, it is likely that team development in IDTs will differ significantly from team development in traditional teams. Research has yet to explore how IDTs develop and what role cultural norms play in this process. Given their importance for team development in earlier team development models, it is crucial to examine the effect of team norms on subsequent team processes. Along the same lines, it needs to be established how these team norms emerge in IDTs and what specific functions they fulfill regarding team member interaction.

The Current Study

The main contribution of this study is to challenge prevailing assumptions and perceptions with regard to cultural differences and to raise questions about the way culture and geographic distance affect team development. In order to develop a richer, more complex, and thus, more accurate, understanding of how cultural differences affect individual behaviors, researchers have suggested that we need to move away from using the rather coarse descriptors of cultural differences developed at the national level (e.g., Hofstede, 2001; Oyserman et al., 2002; Triandis, 2004). With this in mind, the current study examines nuances in the content and meaning of communication norms in three different cultures to describe cultural differences at a more granular level and to gain a better understanding of the role these norms play in internationally distributed teamwork.

Similarly, research on international teamwork does not adequately address the complexity of issues that affect teamwork in culturally diverse teams, and they do not specify the factors that define those differences (e.g., Earley & Gibson, 2002).

Furthermore, in IDT research, questions remain regarding which processes actually lead to *successful* teamwork behaviors among team members (Montoya-Weiss et al., 2001). The current paper strives to fill these gaps by integrating both the complexity of cultural differences as well as the unique context of geographic distribution and by assessing if and how team members create team norms that help them overcome these challenges.

To investigate group processes such as the ones described here Currall, Hammer, Baggett, and Doniger (1999) recommend using a process-oriented, qualitative approach. The authors find that observational techniques are particularly suitable to studying group processes. Ethnography or participant observation allows the researcher to 'see through the eyes' of the observed individual (Bryman, 1988). In the process, the researcher discovers and understands events, actions, norms, and values from the perspective of the individual and can conceptualize and capture social life as a process. Observations also allow for descriptions of 'mundane detail', which are important to understand underlying factors in the context, and take into account the context in which the data was collected. In addition, "qualitative methodology is commonly known as *the* method for studying *culture* […]." (Szabo, 2007) and it "can be used to obtain the intricate details about phenomena such as feelings, thought processes and emotions that are difficult to extract or learn about through more conventional research methods." (Strauss & Corbin, 1998, p.11).

In the following section, I describe the research methods and report and discuss the findings from this qualitative study, emphasizing the implications of an IDT context for team development.

2. Method

The Research Setting

Data were collected during two international classroom collaborations between undergraduate students in the US and undergraduate students in Finland and Germany. The author organized an 11-week international collaboration between a class on 'Cross-Cultural and Global Management' at George Mason University and a similar class on 'American Culture' in a university in Finland. The author then organized a second, 9-week international collaboration between another class on 'Cross-Cultural and Global Management' at GMU and a similar class on 'American/German cultural differences' in a university in Germany.

Student Teams

For the American/Finnish collaboration seven teams were built with 3-4 American and 3-4 Finnish students in each. For the American/German collaboration six teams were built with 4-5 American and 2-3 German students in each. Students in the Finnish class were almost exclusively of Finnish cultural background. Similarly, students in the German class were almost exclusively of German cultural background except for two students who have an Asian cultural background. Students in the American classes were of very diverse cultural background as is typical at GMU. In both collaborations, more than half of the students on the American side were first or second generation

Americans with cultural roots in Asian, Latin American, Middle Eastern, Northern African, Southeast Asian, and European countries (but not Finland or Germany).

Cultural Background

Teams with American/Finnish and American/German members are interesting in the context of the current research question. Being that all three countries are considered Western cultures and are relatively close to each other on dimensional systems of culture such as Hofstede's (1991) or Trompenaar's (1994), significant cultural differences between them are often unexpected for team members who work together for the first time (e.g., Szabo, 2007; Thiele, 2001). Nevertheless, Finnish/American and German/American teams often experience very strong differences in their communication and coordination behaviors that can make cross-cultural understanding and subsequently international collaboration difficult (e.g., Berry et al., 2009; Berry, 2002; Thiele, 2001). Being that these communication and coordination behaviors are based on nuances of cultural differences and cannot be captured with the popular societal-level measures of culture, these teams provide an excellent context in which to study differences in cultural communication and coordination norms at the individual level.

Collaboration Design

The purpose of the collaborations was to facilitate cross-cultural learning and understanding in each instructor's respective class. During the collaboration, student teams engaged in an exchange about cultural differences with their international team members (see Figure 1). In their respective classes, students participated in in-class exercises designed to help them become aware of their own cultural norms and to have a

common ground for discussions about differences in cultural norms. Students were then asked to send a summary of their discoveries via email to their international colleagues after each class session. In addition, students were required to ask questions related to the summaries their international colleagues had sent and to engage in a discussion about cultural differences and their implications. In the next class session, the teachers would bring example emails from the online discussion to class to explore and interpret cultural differences that had been mentioned and to integrate new and previous discoveries into a bigger picture of cultural differences. Students were also encouraged to use voice over IP (VoIP) and chat to talk to their international colleagues during the week.

The pedagogical approach used for the collaborations is based on more than a decade of (1) pedagogical exchanges between Finnish and American students (Berry, Carbaugh, & Nurmikari-Berry, 2004; Berry et al., 2006; Carbaugh & Berry, 2001; Carbaugh et al., 2006) and (2) turning local and exchange students into learner-teachers of each other in face-to-face courses in Finland and Austria (Auer-Rizzi & Berry, 2000; Berry, 2002; Berry & Inreiter-Moser, 2002; Reber & Berry, 1999). The basis for most of the exercises was taken from these courses.

Given that the students' task during this collaboration was to learn about their own and their team member's culture, the current teamwork context is different from the context IDTs face in organizations. However, in all other aspects the teams are similar to organizational teams with regard to such things as the structure and interdependence of work, the available communication technologies, and consequences for lack of performance as well as rewards for good performance.

(Distributed) Context of the Study

Previous research has identified many challenges faced by distributed teams. The following section describes challenges with regard to time zone differences and differences in the organizational context in which the teams in the current collaboration operated.

Challenges Related to Time Zone Differences in the American/Finnish Collaboration

The time difference between the east coast of the USA and Finland is seven hours. The class at the American university and the class at the Finnish university were only twelve hours apart. This meant that students on the American side (who had class around 4 pm on Tuesday) had to send email to their Finnish colleagues (who had class around 2 pm on Wednesday) right after they got out of class, so that the Finns were able to read them before class and so that the Finnish course instructor would have time to make printouts of example emails for discussion. Also, if there were any necessary last-minute adaptations of the in-class exercises, they had to be done in this 12-hour window.

Challenges Related to Time Zone Differences in the American/German Collaboration

The time difference between the east coast of the USA and Germany is six hours. The class at GMU was held on Thursday nights, while the class at the German university was held on Monday afternoons. Different from the American/Finnish context, there was sufficient time between the two classes for the students to comfortably send email and for the instructors to coordinate their class content.

Challenges Related to Different Contexts

In both classes, the American students mostly worked part-time or full-time

during the semester. The Finnish and German students were mostly full-time students with a larger course load. Due to work/class schedules and the 7-hour/6-hour time difference, students often found it difficult to schedule a time for real-time VoIP conversations or chat. Also, depending on holidays, exam breaks, and other events, emails were sometimes sent infrequently and inconsistently.

Furthermore, some students did not have a computer or other necessary equipment (e.g., headsets and microphones) at home and could not come to campus during the times their international colleagues were online. All of these factors made 'direct' contact between students (i.e. communicating with each other at the same time via VoIP or chat) very difficult. Challenges related to 'scheduling conflicts' and 'technology issues' are also common in internationally distributed teams in organizations (e.g., Lynch, Heinze, & Scott, 2008).

Data Sources

Several sources of data are available from the two collaborations. Observations included weekly email exchanges and chat between the team members outside of class as well as in-class observations by each instructor. 679 pieces of email are available from the American/Finnish collaboration, 824 pieces of email from the American/German collaboration. The number of emails by team ranged from 59 to 151 in the American/Finnish collaboration and from 92 to 191 in the American/German collaboration. For their chats, the team members used private chat services that were not part of the online web tool used for the class (i.e., Webct 41). The students were asked to post and turn in copies of the texts of their chats. However, in some cases, students failed

to provide their chat information; thus, these chat events were not available for data analysis.

In addition, students wrote individual 15-page reflective essay on their experiences during the collaboration as part of their class assignments at the end of the semester. For the essay, the students were asked to reflect on their cultural learning from the beginning of the collaboration to the end, using email and chat records as a resource. 37 essays are available from the American/Finnish collaboration. 37 essays are available from the German/American collaboration.

Furthermore, quantitative and qualitative data on team processes and team outcomes using survey methodology were collected during the collaboration. Using insights from the email and chat exchanges as a basis, we developed open-ended questions targeted at the challenges due to cultural differences and geographic dispersion that the students were experiencing. Furthermore, we included established quantitative measures for several team outcome variables that became observable during the collaboration, i.e., team satisfaction, team efficacy, commitment, cohesion, and team performance. These measures were collected using an online survey which students completed as a homework assignment between two classes. We also collected all organizational documents such as syllabi, handouts, exercises, and all preliminary versions of exercises and handouts to track the development of each document given to the students.

Data Collection: Ethnographic Approach – Participant Observation

The instructors were participant observers in the research setting. The

collaboration started with relatively open-ended exercises, which allowed students to think about and discuss their concepts of culture on a very superficial, general level. Following each week's class session, the instructors read and analyzed all email and chat conversations to adapt the following week's exercise accordingly to ensure an optimal learning process for the students. Exercises in the following week were designed to reassess and reanalyze important discoveries made in the previous week as well as to extend this knowledge by providing new challenges to the students' cultural assumptions. During the exchange, more exercises were given that target certain aspects of the two cultures that highlight the cultural differences between them. Using this approach enabled us to follow and observe students' cultural learning progress during each week. Furthermore, we were able to adapt the cultural discovery process to help students identify and explore crucial cultural discoveries.

The setting was ideal to explore the research question of this study. Due to the opportunity to observe the teams from the beginning of the international team project until its conclusion we were able to collect longitudinal data capturing team dynamics over the entirety of the collaboration. Thus, the data enable us not only to look at the influence of the already existing cultural norms but also at the process of norm creation and enforcement within the teams that might help them overcome the challenges posed by their cultural differences.

Ensuring Validity of Observations

To ensure the validity of my observations during the data collection process, I took several steps. 1) After each class, emerging cultural themes were discussed with the

other teachers in the collaboration. Both colleagues are experts in cross-cultural communication in their respective countries. Potential meanings of the discoveries were explored and challenged. 2) When discussing cultural discoveries, my collaboration colleagues and I frequently went back to the published literature in our respective disciplines and countries to compare our observations to findings from other studies or to findings from previous collaborations conducted by Berry, the Finnish course instructor. 3) As part of the pedagogical approach, we brought cultural discoveries back to the students during each week to have them reflect on the insights and integrate these discoveries into a larger picture of cross-cultural differences. 4) Before the American/Finnish collaboration, I interviewed a representative of the Finnish Embassy who had been brought up by Finnish parents in the US about Finnish/American cultural differences and about Finnish and American habits that made these differences especially salient. I used my notes from the interview extensively to think up discussion topics and exercises for the collaboration.

Data Sorting, Data Analysis, and Theory Development

Data management and analysis procedures are summarized in Table 1.

Data Management

All available data were imported into the NVivo 7 coding software, which was used to assist data analysis. Data from different sources (e.g., emails, chat, reflective essays, etc.) were sorted by group and week to facilitate analyses of performance episodes, interpersonal interactions, and team-by-team analysis.

Data Analysis

The available data was analyzed using a grounded theory approach. Strauss and Corbin's (1994) recommendations for grounded theory development were followed with some adaptations. Szabo's (2007) extensive qualitative study on participative management across five European cultures served as an example for reasonable and feasible adaptations to the traditional approach. The described grounded theory approach is consistent with the approaches used by other grounded theory studies on distributed and multicultural teams (e.g., Fischlmayr, Lähteenmäki, & Saarinen, 2007; Metiu, 2006; Pauleen, 2005; Szabo, 2007).

I first analyzed the data from the Finnish/American collaboration and developed conclusions based on my findings. I then analyzed the German/American data, testing the conclusions I had drawn from the Finnish/American data. This step helped to assess the generalizability and specificity of the findings, highlighting the uniqueness and similarity of patterns across the two collaborations.

Coding. Coding was done in three, overlapping stages: 1) open coding, 2) axial coding, and 3) selective coding. The available text was broken down into discrete data fragments or "thought units" on a sentence-by-sentence basis (Locke, 2002). Being that I expected the email conversations, chats, and written class assignments to be the richest source of data, I first focused my attention on these documents. While proceeding through the data, I used the constant comparative method, in which each piece of newly coded text is compared to previously coded text. This iterative process of coding, refining, and recoding helps to maintain the content validity of interpretations (Glaser & Strauss, 1967). In addition, I specifically sought out negative examples to test alternative

explanations and conclusions (i.e., negative case analysis; Glaser & Strauss, 1967; Van de Mheen, Coumans, Barendregt, & Van der Poel, 2006).

In the current study, specific attention was given to comparing data from members with different cultural background and to comparing teams across the two different collaborations. According to Szabo (2007), this comparison helps to detect country-specific patterns as well as differences in meaning.

Relationships between concepts. After having arrived at a set of theoretical concepts, relationships between these concepts were explored. The data was analyzed for emerging patterns of interpersonal interactions. Linkages between concepts were analyzed to determine which concepts are emerging as antecedents, processes, and outcomes. Furthermore, to better interpret team interaction and processes, I tracked sequences of events and interactions between team members. This step helped to examine the team development process and specific sources of confrontation and conflict between team members.

Theoretical saturation. In the current study, it was not possible to assess whether theoretical saturation was reached during the two data collections. As Eisenhardt (1989) comments, it is often the case that time or resource constraints limit the amount of data that can be collected. To determine theoretical saturation in this case, Szabo (2007) suggested using two a priori criteria which are adopted for the current dissertation: 1) The number of new codes per additional team analyzed is expected to decrease and eventually converge to zero after all teams in a collaboration were analyzed. 2) At the end of data analysis, no major questions should remain regarding the concepts or relationships

between them. The current study successfully applied Szabo's approach.

Ensuring Validity of Interpretations and Conclusions

To ensure the validity of my interpretation of the data, I took several steps. 1) I made extensive use of memoing to detect blind-spots in my coding and monitor my interpretations. 2) I periodically discussed my interpretations and conclusions with my two collaboration partners in Finland and Germany. 3) I presented examples from the observations at several international conferences, both in Europe and the US, to obtain feedback and discuss implications for interpretation of the data. The specific conferences were selected to discuss the observations with representatives from all the cited academic disciplines (i.e., intercultural communication, ethnography, psychology, organizational studies, interdisciplinary group research, and management). 4) I compared the findings that emerged from the qualitative data with existing literature (Eisenhardt, 1989). 5) I facilitated an external audit of the findings and interpretations (Lincoln & Guba, 1985) with my dissertation committee members who are experts on teamwork, group processes, cultural differences, inter-individual differences, and qualitative methodology. The committee members assessed and confirmed five of the six audit trail categories recommended by Lincoln and Guba: 1) the raw data, 2) data reduction and analysis products (e.g., summaries, working hypotheses and concepts), 3) data reconstruction and synthesis products (e.g., findings and conclusions, final report), 4) process notes (e.g., methodological notes, reliability of interpretations), and 5) materials relating to intentions and dispositions (e.g., research proposal, expectations).

3. Findings

Before describing key findings with regard to the team development patterns that emerged from the data, differences in culture-driven norms uncovered by the students will be highlighted. These differences generally guided team member interactions in the beginning of the two collaborations and play an important role in understanding subsequent team development. Furthermore, they were often the cause for the creation of team norms that helped the team members function together. Figure 2 summarizes differences in communication norms across the three cultures.

Culture-driven Communication Norms

In this section, I describe some of the American, Finnish, and German culture-driven communication norms as they emerged from the data. Given the space constrictions, I will focus on the norms that are important to understand the observed team development patterns. For the same reason, the wealth of information from the students' discussions about cultural norms could only be summarized here. The Finnish, American, and German original quotes provided below are select examples out of an abundance of similar quotes that I found in the data. The chosen examples were especially useful as they often provided deep insights and connections between norms.

American Communication Norms

Three core norms underlying American communication norms emerged from the data: Connection to others, interpersonal engagement, and confidence. These three core norms imply more specific norms that drive communication behaviors related to coordination, relationship building, and knowledge sharing.

Based on the core norms for interpersonal engagement and feeling connected to others, which elicit relationship building and coordination behaviors, American students described that Americans tend to start conversations when they meet new people. This is usually helpful when becoming the member of a new team. As the students explained, to start a conversation, Americans often engage in small talk as a way to exchange personal information and build rapport with the other person. Being that Americans tend to feel uncomfortable with silence, small talk is a polite way to engage another person in a conversation so that s/he does not feel isolated.

> <u>American:</u> *"Americans are very uncomfortable with silence. If two people are engaged in conversation that is followed by silence, more than likely one of the two people will start the conversation back up with stating something funny or obvious just to get rid of that silence. You almost feel obligated to keep the conversation going. These small comments or "small talk" later leads to "big talk" or a more detailed topic."*

The American students explained that during small talk Americans try to find commonalities with the other person. Talking about obvious things first is often used to find out how much information both parties share. Sharing information with others and uncovering similarities helps Americans feel connected with others. Small talk is related

to the relationship building as well as the information sharing aspects of communication norms.

Apart from feeling connected to others, another important aspect of interpersonal engagement that emerged from the data is to keep a conversation active and lively which affects the coordination of communication. Only lively conversations indicate that team members are committed and interested. To express interest in a conversation, Americans ask many questions and give short answers only to follow up with more questions. As the students explained, this also leads to a preference to "think on ones feet" rather than spending a long time thinking about what to say. Ideas are often developed together using brainstorming. With regard to coordination, this leads to quick interchanges of brief messages in which ideas are developed and build on top of each other.

> *American 1:"You can never ask too many questions! Asking questions shows you are interested in the other person and you want to learn more about them or a particular subject."*
>
> *American 2: "Americans don't just start blurting out words until they think of something to say, but they often start a sentence without fully knowing where it will end up. I kind of like doing it myself. If you do it correctly, you won't sound silly."*

In addition to "thinking on your feet" and asking questions, the students highlighted that expressing emotions is another way of making a conversation interesting and interactive. Expressing emotions can help encode which parts of the shared information are especially important and need to be paid attention to.

Related to both the norm for interpersonal engagement and the norm to feel and appear confident is the norm to be controversial. As emerged from the data, controversy is used to enliven a conversation and to elicit responses from others. Playing devil's advocate is often used to look at issues from a different perspective and to challenge other team members. However, controversy is also sometimes used to provoke and shock, which can have negative consequences for teamwork.

> American: *"I think it is healthy for anyone to openly talk about topics that are touchy, or controversial. When talking of these topics, everyone just has to realize there are different viewpoints on issues, and there is not necessarily one correct viewpoint. I personally enjoy arguing and debating […]."*

Finnish Communication Norms

Four core norms underlying Finnish communication norms emerged from the data: honesty, privacy, conflict avoidance, and modesty. As before, these four core norms imply more specific norms that drive communication behaviors related to coordination, relationship building, and knowledge sharing.

With regard to building relationships, the Finnish students explained that Finns are hesitant to start a conversation right away when meeting new people. It is polite to give the other person privacy and to first observe him or her to see whether or not s/he is interested in a conversation. Being that Finns are very comfortable with quietude and enjoy having time to themselves to organize their thoughts (see example below), Finns do not feel the need to engage in conversations all the time, especially not with strangers. As

several Finns stated, starting a conversation when the other person would rather be alone is considered impolite. As a consequence, Finns usually also do not use small talk.

> Finn: *"In my opinion, the main point is the privacy. If someone doesn't feel like talking, it's ok. At times it's very refreshing to organize ones own thoughts without being bothered by others. So it's good to first "probe" whether the other one is in the mood for talking. That may very well seem like shyness to foreigners, but has a lot to do with respecting the other person's privacy. It's usually more awkward to try to talk about something (like the weather) than not to talk at all."*

Several Finnish students highlighted that Finns are more likely to start a conversation with somebody they know; thus, there is no need to engage in small talk. Furthermore, Finns weigh what is said very heavily. This is a consequence of several communication norms that are linked to the core norm for honesty and influence relationship building. The data suggests that honesty for Finns means that one means and does exactly what one said. What one said one would do becomes a promise that other Finns rely on. According to several Finnish students, the words "I promise" do not have to be used because other Finns already know that what was said was a promise. As a consequence, Finns are very careful about what they say as it can quickly be perceived as a promise that they will have to keep. Thus, Finns usually listen and think about what other people said and its implications before they speak their mind. As the example below underlines, small talk can be considered dangerous as one could carelessly promise something one actually did not want to do.

Finn: *"One should be committed to what one says. You are known to be who you are by what you say – This is probably one of the reasons why Finns are not so talkative. We tend to talk only if we have something to say. Small talk is not one of our traits. Finns usually don't make promises that they can't keep. If we say that we will do something, we usually do it and even on the same day or immediately."*

With regard to the coordination of communication the data shows that there is less communication than in an American context, time between communications is longer, messages are more detailed and longer, mainly important questions are asked, and previous questions are answered providing a lot of detail. Related to this is also that Finns prefer to talk about topics that are relevant to both parties rather than exchanging obvious information which affects the knowledge sharing aspects of communication. When forming a new team, this might be tricky because team members who do not know each other do not know what is relevant to the other party. In this case, Finns would often first observe and listen to other people before engaging in the conversation themselves. As the Finnish students stated, no Finn would like to appear stupid by saying something that everybody else already knows.

Finn: *"I think Finns would have a lot more small talk if we didn't think what the other thinks about us if we say something? […] Finns want to think carefully before telling their opinions and thoughts. No one wants to say anything stupid so we are careful about what we speak. Also other people expect that you will think before you speak. If a Finn says something stupid, other Finns will notice it and consider it as a bad thing."*

To remain honest and appear trustworthy as well as to avoid conflict, Finns prefer to stay with facts rather then basing arguments on emotions. According to the Finns, expressing emotions in conversations can be seen as unprofessional. As a consequence, Finns do not argue in public unless the issue is very important. Again, Finns usually try to hear everything the other person has to say first, before they express their own opinion.

> Finn 1: *"Finns tend to trust more in facts because they do not lie. We are honest and rational people and I would say that is why we like to trust more in facts than feelings. Feelings can be wrong and affected by other irrelevant factors."*
>
> Finn 2: *"In Finland people are thought to really mean what they say. So making contentious arguments if you don't have anything to back them up with is not very common."*

Finally, the data shows that Finns value modesty. Unless a Finn is asked about his or her skills or achievements, s/he will rarely talk about them. Otherwise it would be considered bragging. This can, for example, be problematic when determining role assignments in a situation in which a new team is formed. When taken together with the norm for honesty, the norm for modesty also prescribes that Finns highlight both the negative and the positive aspects of things. As the Finnish students stated, it would be dishonest to only disclose the positive aspects of something.

German Communication Norms

The data shows five core norms that affect German communication norms: Privacy, Respect, Honesty/Sincerity, Thoroughness, and Efficiency. It will again be described how these communication norms affect behaviors related to coordination,

relationship building, and knowledge sharing. While some of the German norms are similar to the Finnish norms, some norms are very different. In addition, similar norms often differ in key aspects such that the elicited behavior might look the same but the underlying motivation is different.

Similar to the Finns, Germans also hesitate to start conversations with strangers, however, for slightly different reasons. Similar to the Finnish communication norm, the Germans students pointed out that a conversation is only started when it is clear that the other person also wants to engage in a conversation. In addition, to start a conversation politely, one has to either be formally introduced to the other person or introduce oneself. This demonstrates respect for others and maintains other's privacy which are the bases for relationship building.

> German 1: *"If the person shows interest in the conversation and probably is the only one in a group I don't know I sometimes just start introducing myself first, just to make him/her feel comfortable. If the person is standing in a corner or looking out of the window, I won't talk to him/her, unless he/she doesn't show any interest in the conversation. The reason is, that I would think, that this person don't want to talk to the others and don't want to join the group and it is a kind of respect to leave him/her alone."*
>
> German 2: *"I would agree that it is uncommon to talk to a person you don't know the name. So the person has to introduce her/himself or has to be introduced by other person. But if there is a conversation and an unknown person is standing in*

the nearby, at least one of the others will ask the person for the name and other details."

Several German students mentioned that another aspect of maintaining and respecting privacy is to not ask personal questions as well as to refrain from expressing emotions. Given that Germans strictly separate work and private life, asking questions about private life at work is often inappropriate. As the Germans stated, emotions are also considered private and expressing emotions can be seen as unprofessional and informal; thus, Germans usually only express emotions to people they trust and have a strong relationship with. These communication norms affect relationship building behaviors.

According to the German students, being honest and sincere is also a matter of respect. Saying exactly what one means and meaning what one says are important norms to display honesty and sincerity as well as to show respect for others by not deceiving them. Negative things are expressed as well as positive things. Examples highlighted that if one does not have anything nice to say, one should still say it, otherwise one could be perceived as insincere and deceptive. This German candidness can be a source of conflict in international teams (see example in current collaboration below).

For similar reasons, Germans do not appreciate small talk. The German students felt that small talk is used when one really has nothing else to talk about because there is no personal connection or because one really does not want to talk to the other person. Small talk thus appears as insincere and can hamper rather than help relationship building. In addition, small talk is often considered a waste of time with regard to sharing knowledge and information. As the German students pointed out, Germans do not feel

the need to talk, when there is nothing to talk about, which is related to norms for efficiency. Similar to Finnish communication norms, stating the obvious is not appreciated. However, this is more related to feeling that it is waste of time rather than to being perceived as stupid.

> German: *"There is small talk in Germany as well. But often I combine 'small talk' with a bad feeling. A typical situation of small talk is for example, if you meet a former class mate you never talked to a lot. You know, you can't just pass him saying "hello", but actually there isn't really anything you would like to know. So it starts with 1) "Hi, how are you? Haven't seen you quite a long time!" (I actually don't mind), 2) "So what are you studying again?" (I actually don't care), 3) "And where are you up to now?" (I actually don't care)."*

As emerged from the data, being efficient is related to the core norm for being thorough. To be thorough and efficient, one should first listen, observe, and think before speaking. While Germans and Finns value the same behavior, Finns are usually motivated by respecting each other's privacy and by being careful not to make promises or say something stupid. With regard to coordination the data shows that messages are long and detailed, that time between messages is longer compared to Americans, that questions and responses are often criticizing previous messages and require more complex responses.

Germans and Finns also share a preference for facts versus feelings. While this behavior is anchored in honesty for both cultures, for German students it related to

thoroughness and efficiency, while for Finnish students it related more to conflict avoidance.

> German: *"There is a strict boundary between showing emotions in conversations in privacy and in business. Being too emotional in business will be seen as unprofessional because in the most business you should be objective."*

Finally, Germans lie somewhat in the middle between Finns and Americans when it comes to asking questions. Similar to Americans, Germans like to ask questions to express interest in the conversation. However, as the German students emphasized, the questions have to be substantive and often critique the given statements. Being critical means that one is listening and actively thinking about what is said. Being critical is helpful to be thorough.

Culture-driven Differences in Attributions

When comparing these culture-driven communication norms across the three cultures, it became apparent that the same behavior can lead to very different attributions about the actor's intentions depending on the underlying cultural norms. For example, the American students perceived using small talk as a polite way to engage strangers to save them from uncomfortable silence. Using small talk in Finland and Germany is seen as an invasion into the other person's privacy and is thus impolite. Furthermore, students from both these cultures mentioned that engaging in small talk can be perceived as insincere because the two parties have really nothing else to talk about.

Another example is different interpretations of silence. German and Finnish culture-driven communication norms emphasize observing, listening, and thinking before

speaking, while American culture-driven communication norms emphasize interacting with others and thinking on one's feet. Accordingly, it could be observed that Finnish and German emails were sent a little later than American emails in the beginning of the collaboration and that responses to questions took a little longer but were also more detailed and thought through. To the American students in both collaborations this behavior signaled that their remote colleagues were less committed and not as interested in exchanging information because they did not engage as actively and frequently in the discussions. To the Finns and Germans it seemed as if the Americans did not spend enough time thinking about the questions they had sent and that their answers were often superficial and lacking detail. Accordingly, the Finns and Germans felt that the American students were uncommitted and insincere.

These are just two examples of a large number of differences in attributions based on difference in the underlying meaning of the culture-driven norms. Given their differences in communication expectations, Americans were on a collision course with Finns and Germans. The following section summarizes how these differences affected team interaction patterns and subsequently team development.

Team Development Patterns in IDTs

From the two collaborations four different team development patterns emerged: "smooth sailing", "on & off", "bumpy start", and "non-committed" teams. Each of the four patterns had its own characteristics, key turning points, and creation of team norms. The successful teams (i.e., "smooth sailing" and "on & off" teams) showed consistent communication patterns throughout the collaboration and experienced little conflict. They

quickly created beneficial team norms that helped them to build rapport between team members, to keep each other motivated and committed to the exchange, and to manage conflict successfully. "Bumpy start" teams encountered conflict early in their team's history which triggered the creation of conflict management norms. However, they did not manage to create similar levels of rapport, motivation, and commitment as the successful teams. Team members in the "non-committed" teams lacked commitment and motivation from the beginning. These teams failed to maintain consistent communication among team members and to create beneficial team norms.

Table 2 summarizes the key development characteristics over time for each of the four groups. While all teams completed the same exercises and acted in the same environment, it is apparent that their experiences were very different. At the same time, the teams that showed high cultural learning and team satisfaction (the successful teams) created similar team norms, while the teams that showed little cultural learning and were more dissatisfied with their teams (the unsuccessful teams) did not. In the following, I will describe the four different development patterns in more detail, identifying key turning points during the interactions. I will also describe the team norms the teams created, how and when they were created, and what effect they had on team processes.

"Smooth Sailing" Teams

"Smooth sailing" teams showed several key features in the beginning as well as throughout the collaboration. They were the most consistent type of team that started with a high frequency of communication and kept it up over time.

In the beginning of the collaboration, most team members sent emails that closely reflected the culture-driven communication norms described above. However, the team members quickly adapted their style to take on some of the communication characteristics of the other culture. Interestingly, this adaptation process started even before discussing cultural differences in communication styles. In addition, in very few instances did the teams specifically discuss communication behaviors within the team. Adaptations happened mostly through mimicking other team members' behaviors.

For example, Finns and Germans sent emails faster, while American emails got longer. Several Americans did not use greetings or good-bye notes in their emails but expressed their excitement about the collaboration, while the Finns and Germans greeted but hardly expressed emotions in their emails. Over time, Americans started greeting and Finns and Germans also expressed positive feedback about the conversations. These two team communication norms created motivation and cohesion and increased communication among team members.

Another key aspect of creating cohesion, commitment, and trust was the exchange of personal information among team members to build rapport and get to know each other. As was described above, both the German and Finnish culture-driven communication norms do not encourage exchanging personal information early in a relationship. However, a few key emails encouraged the Finns and Germans to reveal more about themselves.

For example, in team 1 of the Finnish/American collaboration one of the American team members' repeatedly provided personal information in her contributions.

After a few emails like this, her example was followed by one of the Finns. Personal introductions by everybody followed that included information about educational backgrounds, hobbies, and future plans. While these American behaviors led the Finns in these teams to reveal more information about themselves than they normally would in this short time frame, most of the Finns still revealed far less information about themselves than the American team members.

As another example, one of the German team members of team 5 in the German/American collaboration initiated formal introductions that included mostly educational backgrounds and their particular interest in the collaboration. As a result, all team members provided this rather basic kind of task-related information. However, one of the American team members took this opportunity to reveal a lot of intimate details about her family and herself as it related to the conversation topics. One of the Germans responded and expressed her thanks that the American team member had entrusted the other team members with all this information about herself and immediately retaliated.

This key email triggered several positive developments in the ongoing email exchange that were typical for "smooth sailing" teams. 1) The American team members now started greeting and addressing the German team members by names in their emails. 2) The team members directly responded to each other's contributions and built on top of them rather than just expressing their own opinions without follow-up. 3) The team members started discussing personal topics that still focused on cultural differences but went beyond the topics assigned in class. 4) The teams also started discussing more

sensitive topics (e.g., politics, homosexuality, sex before marriage, religion) without creating conflict.

This exchange of personal information and self-initiated discussions of their own topics was further supported by engaging in real-time communication (chat or VoIP). All smooth sailing teams used real-time communication at one point or another, some throughout the entire collaboration. Nevertheless, even the "smooth sailing" teams had team members that never managed to participate in real-time communication which until the end was a source of frustration.

Open expression of opinions and disagreement was another characteristic of the "smooth sailing" teams that developed quickly based on team member interactions. Following the Finnish communication norms that prescribe honesty and modesty, the Finns in the "smooth sailing" teams always highlighted both the positive and negative parts of their cultural norms, opening the door for discussion and controversy for the American team members who then also responded by criticizing some of their own cultural norms.

In the "smooth sailing" teams of German/American collaboration the American team members responded to the very candid German questions and comments with curiosity and reflection rather than with confrontation or defensiveness. In their answers, the American team members were able to practice their culture-driven norms for controversy, but were also able to return more questions to the Germans to engage in an active conversation with them. Asking substantive and critical questions catered to the

German cultural norms for sincerity and thoroughness. The following example from highlights this exchange:

> German: *"A lot of people don't like President Bush because of his action in the war out there. why did he do that? are you Americans agreed with what he has decided?"*
>
> American: *"That's a very good question, and a very hard one to answer. "Americans" are divided between supporting and opposing the war we are currently in. However, at the beginning it was strongly supported. […] My personal feelings go towards the soldiers. If we do not show (at least some) support for the war; likewise we are showing no support for our soldiers. This is their job and duty and who are we to shun our own soldiers for doing their duty. So in a nut shell, I do not agree with all the "terms" of our war; but I will not completely oppose the process and act. Let me know you're personal views, they are interesting to hear."*

While conflict was rare in "smooth sailing" teams, it did occur once or twice throughout the collaboration, mainly based on misunderstandings of statements or humor. In these cases, the reaction of the respective other side was to make their team members aware of the miscommunication and asking them for clarification, which the respective team member did. The following example illustrates such an exchange:

> Finn: *"I hope you Americans aren't totally brainwashed by your media. Text says that positive features of foreign countries are rarely highlighted by your media. Countries in Northern Europe like Norway, Sweden and Finland are probably*

much safer than most states in USA. Norway has so much oil money saved in funds that Norwegians could all stop working and live with investment returns. And did you know that China's economy is growing so fast that it will overtake USA as world's biggest economy in the future?"

American: "I hear a little bit of frustration and America bashing tone in your email. Am I correct? Or is it a loss of context. Our news media here is one of the most transparent "free market" news you will get anywhere."

Finn: "There is no frustration or America bashing tone, or at least that was not my intention. I just wanted to know if you guys are aware of these kind of things. The metaphor text says that to American media "no news is good news" and therefore the outside world is often reported as volatile, violent and miserable and that the positive features of foreign countries are rarely highlighted by the American media."

Overall, consistent communication was key to building trust and dependability. While the Finnish team members invested more effort in their responses and provided more detail in their answers, American team members still made sure that they provided answers to the Finnish questions. To the Finnish team members this signaled commitment and following up on the promise to engage in the conversation. Similarly, some of the American team members in both collaborations felt that the fact that they always got answers helped to build trust into the Finnish and German team members. In the "smooth sailing" teams, communication related to a specific class topic usually continued even after the next class topic was started. Over the weeks this generated an

increasing number of emails which made the communication seem even more continuous and frequent. For the Americans this exchange pattern kept up the activity level, while it enhanced perceptions of dependability and sincerity for the Germans and Finns.

While some of the cultural communication patterns remained throughout the collaboration (e.g., long emails, directness, controversy, etc.), the team members learned to interpret them increasingly as cultural styles and reacted accordingly. The adaptation of communication styles to each other and the creation of team norms helped the "smooth sailing" teams function and learn more about each other's cultural norms.

"On & Off" Teams

"On & off" teams showed several similarities to "smooth sailing" teams. However, these teams did not manage to maintain a high level of communication throughout the collaboration and as a result did not reach the kind of in-depth personal relationships and cultural learning compared to the "smooth sailing" teams. The most common pattern in the "on & off" teams was that communication frequency slowly declined followed by weeks in which team members did not communicate at all, only to come back to a more frequent communication pattern in a later week. These teams were also less likely to end the collaboration with a good-bye greeting or with a promise to stay in touch in the future.

In general, the "on & off" teams started their collaboration experiences in a similar way as the "smooth sailing" teams. They also adapted their communication styles, built rapport through introductions and exchange of personal information, expressed excitement about the collaboration, started greeting each other and addressing each other

by names, and referred to each other's contributions. However, there were also some significant differences when compared to the "smooth sailing" teams contributed to the infrequent communication patterns and weaker commitment.

Different from the "smooth sailing" teams, the "on & off" teams usually had several team members that did not consistently participate in the weekly conversations. Furthermore, these teams increasingly sent emails that did not build on top of the contributions of their team members or went beyond the assigned class topics. Instead the emails only fulfilled the instructor-provided posting requirements for that week. Furthermore, the number of questions decreased as did the number of answers that were given to previous questions. In the team survey, some of the American team members stated that their drop in communication was partly due to the short time between their class and the Finnish class, which only gave them a few hours to write their emails, as well as due to commitments to other classes and work. However, they never voiced that in their communications with the remote team members.

At the same time, the Finns and Germans felt that the Americans were not as committed to the collaboration and reduced their contributions as well. Both Germans and Finns felt that the Americans were not putting effort into their postings, did not answer their questions, and were not reliable. Given the German and Finnish culture-driven communication norms above, the American behavior indicated a lack of sincerity and dependability. This hampered trust, cohesion, and motivation in the teams. Along the same lines, most of the team members of "on & off" teams did not manage to engage in real-time communication via chat or VoIP.

The fact that these teams hardly experienced any conflict in their discussions is most likely due to the decrease in communication frequency and depth. Most of these teams did not discuss topics that went beyond the class-assigned topics or topics that were of personal interest. Questions remained superficial and mainly dealt with different ways of living (e.g., food, hobbies, education) in the two countries. Hardly any substantial discussions were initiated.

"Bumpy Start" Teams

Characteristic for the "bumpy start" teams is that they experienced conflict from the get-go and had to deal with it before they had time to build personal relationships or trust. In one team, the conflict stemmed from very strong stereotypes that team members held against each other's culture. In the other case, conflict emerged as part of the differences in culture-driven communication norms. Although the experienced conflict threatened team building, it also provided opportunities for cultural learning that were missed by the other three types of teams.

Team 4 of the Finnish/American collaboration experienced affective conflict already during the first week. In the first email, an American team member had listed her first associations when thinking about the USA, Americans, and American values, which was part of the assignment for that week. A Finnish team member followed up on this with the following emotion-loaded questions:

> <u>Finn 1:</u> *"Respect. Would you please care to give a little bit more information about this? What do you respect? As an example my personal opinion is that your recent behavior as a nation in international politics is quite far from respectful.*

Family. How is it shown in everyday life that family is important to Americans? Aren't you working like all the time? How do parents ever have time from their work to actually be with their children. How is it tangibly shown that parents care.

Greedy. What do you mean? Like Enron way greedy? Or wanting the oil from Iraq kind of greedy? Would you say there is something good in being greedy?"

The American team member responded by ignoring the emotional aspects of the Finnish's questions and by clarifying what she meant. Nevertheless, this way of "asking questions" seemed to stimulate another Finnish team member to respond to a different posting in a similar way:

Finn 2: "You say: "We are the center of the world and want to interact with others." I say: How on earth do you think that you are the center of the world? I mean, could you explain this in more detail? Do you mean this in a way that you are geographically in the middle? Because you definitely aren't. […] I personally believe that most Finns often think of you Americans as somewhat self-centered people in a negative way. (I hope you prove us wrong.) I think most of us don't accept your government's role as world's police force. We would also like to hear your opinions about your president; do you fully support his decisions?"

This is followed up by a brief response by the American team member, trying to explain how things might look different from an American and a Finnish standpoint. Otherwise, she again ignores the emotional tone of the email. During the same week, one

of the two Finnish team members acknowledges that she probably has a very negative image of the USA and would like to learn more to convince her otherwise.

Focusing on providing clarification and more information is what seemed to tone down the conflict and turned the conversations into an actual collaboration. The team members still expressed their opinions openly but refrained from doing so in an accusatory tone. This team managed to make some interesting cultural discoveries and maintained active conversations throughout the rest of the collaboration.

Team 2 of the German/American collaboration also experienced conflict in the beginning of the collaboration as well as several times throughout. One of the conflicts was initiated by a German question that followed the culture-driven communication norms to "be straight-forward" and to "say what you mean":

> <u>German 1:</u> *"Another question that I have for you and that I would be really interested in is "Why do Americans seemingly not care about environmental protection?" Germany is always ahead of most European States concerning environmental protection and especially our chancellor Angela Merkel is challenging other Nations to follow. But the U.S. doesn't really seem to care about these questions. Is that so?"*
>
> <u>American:</u> *"First, I would like to say that I think Americans do care about environmental protection very much. However, we may not agree with the general German position, or that of much of Europe. […] Now, for what I believe to be the more general reason that we don't view environmental protection in the same way as many other nations. We are capitalists, which in theory means that*

we only do things that make economic sense. To the extent that it benefits people or companies, those people and companies should participate in protecting and/or restoring the environment. If it does not benefit them then they should not do it."

German 2: "I would never ever buy a Hummer or SUV because in my opinion it's simply not right to totally waste fuel even if u have the money. That is the point where I would say environmental care should start. And there is no more space for waiting or handing out the problem to future generations. How selfish is such a thought? Making as much money as possible right now and let somebody else handle the consequences?"

Throughout the collaboration, the Germans continued to ask very direct questions and were very candid in their responses. One of the American team members was eager to engage in this discussion, expressing diametrically opposing views, which might have been encouraged both by his personal interests as well as the American cultural norm for "being controversial" and expressing "confidence". After his postings, the other Americans also engaged in these sensitive discussions following a somewhat less controversial discussion style.

Although the team members touched on many sensitive topics and never agreed, the team managed to built rapport and trust, mainly through building norms for open expression of disagreement and opinions without the discussion becoming emotional or personal. This team also had very active chat sessions in which they exchanged a lot of personal information and bonded through joking. Overall, this team made some of the

most interesting cultural discoveries and enjoyed their experience despite, or maybe even because of, the conflict.

"Non-committed" Teams

Only the Finnish/American collaboration included two "non-committed" teams; there was no similar team development pattern in the German/American collaboration. Key characteristic of the "non-committed teams" were that 1) email content was foremost limited to the instructor-specified requirements for each week and hardly ever went beyond these class topics, 2) the frequency of emails was limited to one email per team member per week, which also meant that hardly any contribution was in response to or built on top of a previous contribution, 3) several team members participated inconsistently or hardly every in the weekly exchange.

Similar to the other three team development patterns, emails sent in the beginning of the collaboration were mainly reflective of the culture-driven communication norms of the Finnish and American team members. However, different from the other teams, team members in the "non-committed" team never adapted their communication style to the respective other style. Furthermore, these team members hardly developed any team norms that helped them overcome their communication challenges.

For example, the American team members in team 2 in the Finnish/American collaboration started the first week by sending short emails related to the course requirements right after class. The Finnish team members in this group decided to collaborate with each other and post their comments jointly after they had met as a group to discuss them. In the first week, they sent their joint contribution 5 days after their

class, only the day before the next American class. While the contribution was much longer than the American contributions (6 pages in a word document), the discussion points were not treated in as much detail as in other groups. The Finns answered all the American questions providing a lot of detail and then asked more questions. No further communication happened during that week.

In the next week only one of the American team members answered the Finns' questions. The other two just posted contributions that fulfilled the class requirements. This time, the Finns' contribution is faster, still long, but does not include any additional questions. No further communication followed that week. For the remainder of the collaboration, emails were sent later and later, got shorter, did not include as many questions and answers, and mainly focused on posting what the course instructors had asked for.

Similarly, team 7 of the American/Finnish collaboration showed a decline in emails over time. While their communication frequency was a little higher than for team 2, they suffered many of the same issues: 1) contributions did not build on top of each other, 2) team members did not greet each other or addressed each other by name, 3) many Finnish questions remained unanswered, especially towards the end of the collaboration, while the Americans stopped asking questions, 4) several team members posted inconsistently or hardly ever, and 5) responses to each other always took several days, sometimes weeks.

Despite the fact that the Finns kept sending long emails with many questions, the American emails remained short and superficial. The teams did not create team norms

that helped to manage their challenges, and several of the team members expressed dissatisfaction about the collaboration both in the team survey as well as in their reflective essays. The degree of cultural learning obtained by the team members was much lower than compared to any of the other teams.

Successful Team Norms in IDTs

In the following, I highlight successful team norms that the teams created to overcome the challenges created by their own culture-driven communication and coordination norms as well as by the distributed context of their collaborations. Being that these norms were already described as part of the four development patterns, I will only summarize them here.

Team norms for length of email, timely responses, and frequency of communication counteracted the effects of culture-driven coordination norms between Finns and Americans and Germans and Americans. Team norms for introductions, greeting rules, exchange of personal information, and the expression of excitement and positive feedback about the collaboration created cohesion, commitment, trust, and motivation. Team norms for open expression of opinions and disagreement helped to manage affective conflict among the team members and opened the door for in-depth cultural discoveries and insights. Team norms for referring to each other, building on each other's contributions, and providing additional information and background fostered motivation, respect, and collaboration. Finally, team norms for asking appropriate questions (the number of questions as well as the kind of questions) ensured consistency and dependability in communication patterns and subsequently created trust.

Creation and Enforcement of Team Norms

Teams created these norms through different mechanisms and at different times throughout the collaboration. Again, given that the norms and their emergence were already described in the section on team development patterns, I will only summarize the different emergence patterns here.

In successful teams, team norms with regard to length of email, timely responses, and frequency of communication usually emerged very early in the beginning from observing what other team members did. These team norms remained stable throughout the collaboration. In unsuccessful teams, team members did not create team norms to adapt to each other's communication style.

Team norms for introductions, greeting rules, exchange of personal information, and the expression of excitement and positive feedback about the collaboration were usually created by setting an example by one of the team members or by an explicit request for this kind of information. Team norms for open expression of opinions and disagreement were created as a response to conflict situations or to the display of culture-driven norms encouraging open expression of opinions. Team norms for referring to each other, building on each other's contributions, and providing additional information and background were created through setting examples and subsequently through observing and following what most team members did. Finally, team norms for asking appropriate questions were negotiated through explicit discussions, observing other team members, and frustrations about unanswered questions.

While some team norms were usually created earlier in the collaboration (e.g., greeting rules, exchanging personal information, length of email, etc.), some team norms were created following different events depending on the overall team development patterns (as described above). For example, the "bumpy start" groups developed team norms for expressing opinions and disagreements far earlier than the other groups, while the "smooth sailing" and the "on & off" teams created norms for exchanging personal information and building relationships earlier.

4. Discussion

The goal of the current study was to examine team development and team processes in IDTs. To our knowledge, previous research has not yet examined the process of IDT team development nor which team processes make IDTs successful. A special focus lay on the effect that culture-driven norms for communication have on team development and more specifically on the development of team norms which subsequently influence team processes and ultimately IDT functioning. To achieve this goal, the current study used a longitudinal, process-oriented, qualitative research design.

Four unique group development patterns emerged from the data, "smooth sailing", "on & off", "bumpy start", and "non-committed" teams. Each of the four patterns had its own characteristics, key turning points, and creation of team norms. Two possible explanations for these different team development patterns include differences in team composition and differences in events in the team's histories.

Team composition often affects ensuing team interaction patterns (e.g., Guzzo & Dickson, 1996; Morgan & Lassiter, 1992). The current findings highlighted the role that cultural differences in communication norms played both in the experience of conflict as well as in shaping subsequent team norms for communication. Culture-driven communication norms are one aspect of team composition. Other aspects include, but are not limited to, inter-individual differences in personality variables, skills, knowledge, or

education. Beyond the influence of culture, it would have been interesting to assess the effects of these inter-individual differences on team interaction patterns.

While data on several personality characteristics were collected in the current study (e.g., Big Five, tolerance for ambiguity, self-efficacy), the small sample size did not allow for a reliable analysis of the effect of individual differences on team development. When looking for patterns among the available data, we did not see an apparent pattern emerge that linked inter-individual differences to the team development patterns. Future research needs to examine the relationships between inter-individual difference variables and team development patterns more closely with bigger sample sizes.

Our observations showed that earlier events in the teams' history influenced the creation of team norms and subsequent team processes. Rather than following temporal patterns in the teams' organizational context, team development resembled more closely traditional path-dependent models (Chang et al., 2006). Similar to Tuckman's (1965) "forming" stage, team members in the "smooth sailing" and "on & off" teams revealed increasingly more information about themselves, the task became clearer, and the situation became more familiar. Where conflict arose, especially in the "bumpy start" teams, team members learned about each other's perspective and negotiated team norms which subsequently led to group cohesion and trust ("storming and norming phases").

However, our observations also showed that teams do not necessarily undergo this process in the same way. Different patterns of events can lead to the emergence of similar norms and team processes such as when comparing "smooth sailing" and "on & off" teams with "bumpy start" teams. Moreover, some teams like the "non-committed" teams

never really master the forming stage. This highlights the point that emergence of the same constructs can have different causes and can take different evolutionary paths which was made by Kozlowski and Klein (2000). Kozlowski and Klein had argued that the actual process of emergence needed to be studied to fully understand the conditions under which constructs and processes emerge. The current study provides an example for this argument. Future research needs to analyze in more detail the differential effects and specific consequences of certain events for team development.

In terms of successful team processes, the current study showed that team norms that encourage interpersonal interaction that acknowledges individual team member contributions, the exchange of personal information that goes beyond task requirements, the provision of information beyond what is required, reciprocal motivation and positive feedback about the interaction, as well as the open exchange of opinions and disagreement helped to build trust, cohesion, motivation, and commitment. These findings underline the importance of facilitating personal interaction and exchange in IDTs that has been proclaimed by previous research (e.g., Graham, 2003; Postmes, Spears, & Lea, 2000, Scholz, 2004). The current study went beyond the previous findings by showing how the teams created norms to stimulate these successful processes and how these norms subsequently enhanced team functioning.

In addition, the current study identified culture-driven norms for communication to be one of the major influence factors on team development. As was described, communication early in the teams' history was primarily guided by the team members' cultural norms. In the more successful teams, team members adapted their behaviors to

the other culture and created team norms that fostered interaction and dependability. Teams that were less successful did not adapt their behavior to each other and were not able to maintain consistently high frequency and depth of communication.

As was described in the findings, team members mostly adapted their behaviors by mimicking each other's behavior until they had built common team norms. These findings resemble findings by Sherif (1936) on the autokinetic effect in groups. Sherif finds that, especially in ambiguous situations, group members might start out with very different personal norms for a given behavior. Over time, though, group members adapt their behaviors to form common standards within the group creating frames of reference that are valid in the ambiguous situation. These group norms develop through reciprocal influence of the group members on each other. It is fascinating that these psychological effects hold up in a multi-cultural, distributed team environment, in which people are not only separated by the geographical distance between them but also by the different cultural context characterized by different cognitive structures, perceptions, and expectations. In fact, it might be just these factors that create a situation so ambiguous that team members actively seek more structure and frames of reference. On the other hand, not all teams adapted in the current study. The non-committed groups did not build common team norms to adapt their behavior throughout the collaboration. Future research needs to examine more closely the factors that lead to adaptation and the mechanisms through which adaptation works in IDTs.

Finally, the current study identified key culture-driven communication norms that highlighted the importance of nuances of cultural differences that offer deeper and more

meaningful distinctions than commonly used dimensional systems of culture such as Hofstede's (1980) or Trompenaar's (1994). While some of the culture-driven communication norms have been identified by previous research (e.g., norms for small talk, comfort with quietude/discomfort with silence, norms for activity; Carbaugh, 2005; Carbaugh et al., 2006; Stewart & Bennett, 1991; norms for formality, efficiency, or thoroughness ; Gannon, 2004; Thiele, 2001; Winchatz, 2001), no previous research exists that assessed the effects of these different cultural norms on team processes and team development. The current study fills this gap.

Strengths, Limitations, and Opportunities for Future Research

The longitudinal, process-oriented, qualitative design used in the current study captures several strengths of the study. We were able to observe the student teams from their formation until the end of the collaboration. Thus, we had the opportunity to observe and capture all important events in the teams' history that affected their development over time. Furthermore, we were able to follow the teams' development as well as the emergence of group processes, which are two aspects of IDTs that had not previously been studied. The use of a qualitative design enabled us to see things from the view of the team members and to take into account all possible influence factors regarding the context as well as individual differences between team members. Finally, the process-oriented qualitative design was ideal to capture the dynamic nature of norm creation and enforcement as well as their effect on subsequent team processes.

One of the limitations of the study is that it only evaluates the effects of cultural norms on team development in three countries that are all considered Western countries.

It can be argued that team development patterns will differ in collaborations in which the countries are further apart with regard to their cultural values and norms, and future research will have to assess this claim. However, the fact that these countries are relatively similar to each other on commonly used cultural dimension systems and still show stark differences with regard to the specific culture-driven communication norms is fascinating. The significant effects on team development patterns that the current study uncovered are, thus, likely to be a conservative estimate of the effects to be found in collaborations between more different countries.

Furthermore, the finding that the same behavior can elicit very different attributions depending on the different underlying meaning of the cultural norm at work is fascinating. Previous research on Burgoon's Expectancy Violation Theory (EVT) (Burgoon & Ebesu Hubbard, 2005) has examined consequences of different cultural expectations for appropriate communication. The focus of this research lay on how likely it is that members of a speech community perceive norm-discrepant behavior. However, this research did not assess the nuances and underlying meaning in which the specific culture-driven communication norms differed. The impact of the nuances in content of specific culture-driven communication rules is mostly unspecified and overlooked in cross-cultural research in both Management and Psychology. The current study contributes uniquely to the knowledge in these disciplines.

Another limitation lies in the characteristics of the sample in this study. The sample consists of student teams, whose task it was to learn as much about each other's culture as possible. These characteristics make the team different from organizational

project teams. However, as was outlined above, the teams also had many similarities with organizational project teams such as consequences for poor performance, deliveries and deadlines, or the context of computer-mediated communication. Future research will have to examine whether the team development patterns found in the current study hold up in organizational project teams.

In addition to being student teams, the current teams were also self-led. Organizational teams often have formal leaders that can have an important impact on norm creation (e.g., Feldman, 1984; Taggar & Ellis, 2007). Future research will have to determine how leaders can set norms in IDTs and how this norm setting rather than norm development process affects teamwork.

Implications for Practice

Several implications for practice can be drawn from the results of this study. Like previous research, the present study highlights the importance of interpersonal exchange for building key team characteristics such as cohesion and trust. Nevertheless, the study also shows that these things can be developed without an actual face-to-face meeting between team members. Engaging the team members in practical exercises and discussions that bring their cultural differences to the surface and help them become aware of them can be a fast and efficient way to encourage the exchange of meaningful personal information. Furthermore, it helps team members to understand the influence that cultural differences have on their own behaviors as well as on the interactions with their colleagues.

While organizations often provide pre-project training on cultural differences, most organizations do not facilitate a cultural learning process among team members within their teams that emphasizes that team members need to take an active role in learning and understanding each other's culture (Reber & Berry, 1999). It is this process that can provide team members with the tools to keep uncovering cultural differences and norms over the course of their collaboration. As the current study shows, this process helps the team members create team norms to manage their cultural differences and ensure team functioning.

In addition to facilitating cultural exchange and learning, several aspects of communication netiquette proved to be effective tools to maintain an ongoing and productive exchange. For example, developing norms for greeting each other at the beginning of an email, explicitly referring to each other's contributions, addressing each other in communications, including good-bye greetings at the end of an email, or expressing positive feedback about the shared conversations built rapport, cohesion, motivation, trust, respect, and commitment. While it might seem that these things should be obvious and part of any polite and respectful communication, several teams did not follow these rules in the beginning, and the "non-committed" teams never developed them. These kinds of interpersonal interaction norms could be negotiated and set early on by the team and its leader.

In general, this study paints an optimistic picture of successful team development and processes in IDTs that help overcome some of the challenges identified by previous

research. More research is needed that looks at the role of other successful emergent states and team processes for internationally distributed teamwork.

Conclusion

The current study provides an important piece of the puzzle that is IDT team functioning. While previous research has identified many challenges of internationally distributed work, research on successful group processes was lacking. Furthermore, it was unclear how IDTs develop. In this study, we introduced four different development patterns, each with its own characteristics and development history. It became apparent that norms play a crucial role in IDT development, both as an antecedent in the form of culture-driven communication norms as well as an emergent state in the form of team norms that affected subsequent team processes and functioning. This study opens up many avenues for future research focusing on success factors for IDTs rather than more challenges. At the same time, it provides important implications for organizational training and management of IDTs.

Table 1. Data management and analysis.

Processes	Activities	Outcomes	Purpose
Data management	Import all documents into NVivo 7, sorted by team and collaboration week.	Data in data analysis format	
Data analysis			
Memos	Capturing thoughts and decisions during the data analysis process. Accompanies data analysis from start to finish.	Set of memos	Conserve decisions for later reference (Locke, 2001).
Coding	Open coding: sentence-by-sentence coding of text to develop descriptive codes.	Descriptive codes	Abstract from the data (Goulding, 2002)
	Axial coding: descriptive codes are then aggregated to categories of codes	Descriptive categories, first linkages between categories	
	Selective coding: theoretical concepts are verified and finalized, and research propositions are specified	Conceptual categories	
Constant comparison	Constant comparisons of new text with analyzed text. Discussion with collaborators about assigned codes. Comparison with academic literature. Negative case analysis	Adjusted and refined categories	Maintaining validity and reliability (Glaser & Strauss, 1967; Kvale, 1994)
Relationships between concepts	Explore relationships between theoretical concepts Analyze semantic patterns in the data Track sequences of events and interactions	Initial empirical model	Model-building
Theoretical saturation	Number of new codes decreases No major questions unanswered		Determine theoretical saturation (Szabo, 2007)
Integration	Compare initial theoretical model to existing literature.	Integrated view and deeper understanding	Examine generalizability & internal validity of findings (Eisenhardt, 1989)
	Sharpen definitions and integrate into existing literature.	Final empirical model	
Cross referencing	Apply codes, theoretical concepts, and emerging patterns to German/American dataset	Potentially: altered teamwork model	Assess transferability & generalizability of conclusions
Across collaboration analysis	Compare patterns from both collaborations. Look for unique and similar patterns.	Propositions	Assess the generalizability and specificity of the generated model Generate propositions for future research.

Table 2. Group development patterns over the course of the collaborations.

"Smooth Sailing" Teams	**"On & Off" Teams**	**"Rocky Road" Teams**	**"Non-committed" Teams**
Characteristics at the beginning of the collaboration			
• Used culture-driven communication, but quickly adapted to each other • Team members introduced themselves • Expressed excitement about the collaboration in their first emails • Built rapport quickly	• Used culture-driven communication, but adapted to each other • Team members introduced themselves • Expressed excitement about the collaboration in their first emails • Built rapport quickly	• Used culture-driven communication • Started out with stereotypes, misunderstandings, and conflict	• Used culture-driven communication, did not adapt to each other • No expression of excitement about collaboration
Interaction patterns throughout the collaboration			
• Maintained high volume of communication throughout collaboration • Skyped • Exchanged a lot of personal information • Provided information beyond the assigned tasks	• Started with a high volume of communication but failed to maintain volume • Skyped infrequently • Exchanged some personal information • Stretches of collaboration with very little or no communication	• Not all team members were equally active • Some personal information was exchanged • Stretches of collaboration with very little or no communication	• Groups only sent emails to fulfill each week's given tasks but did not go beyond • Moderate communication volume in the beginning that quickly trailed off • Very little to no exchange of personal information • Inconsistent communication behaviors by some group members • Many questions remained unanswered • Hardly any recognition of each other's contribution

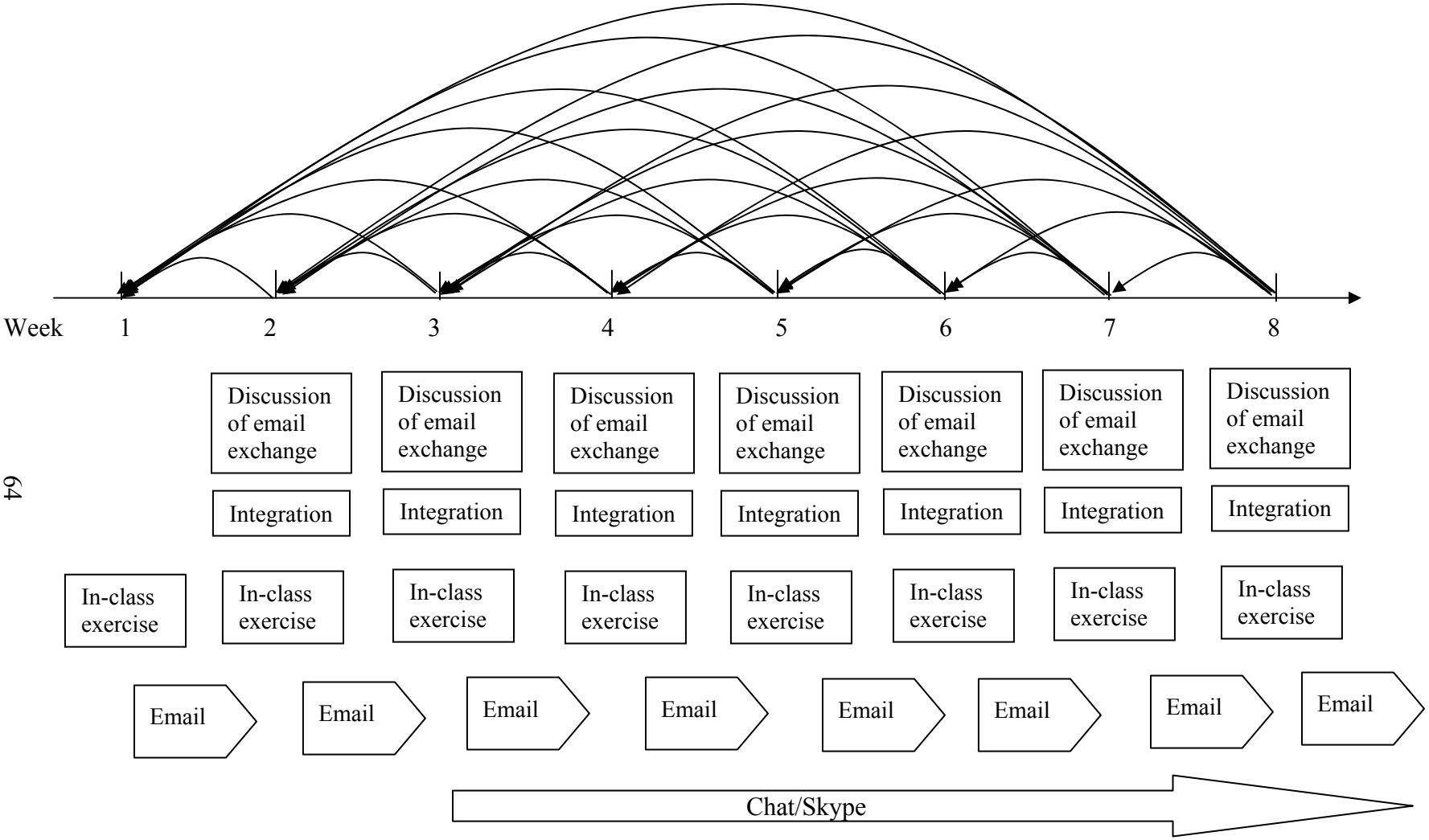

Figure 1. International collaboration design.

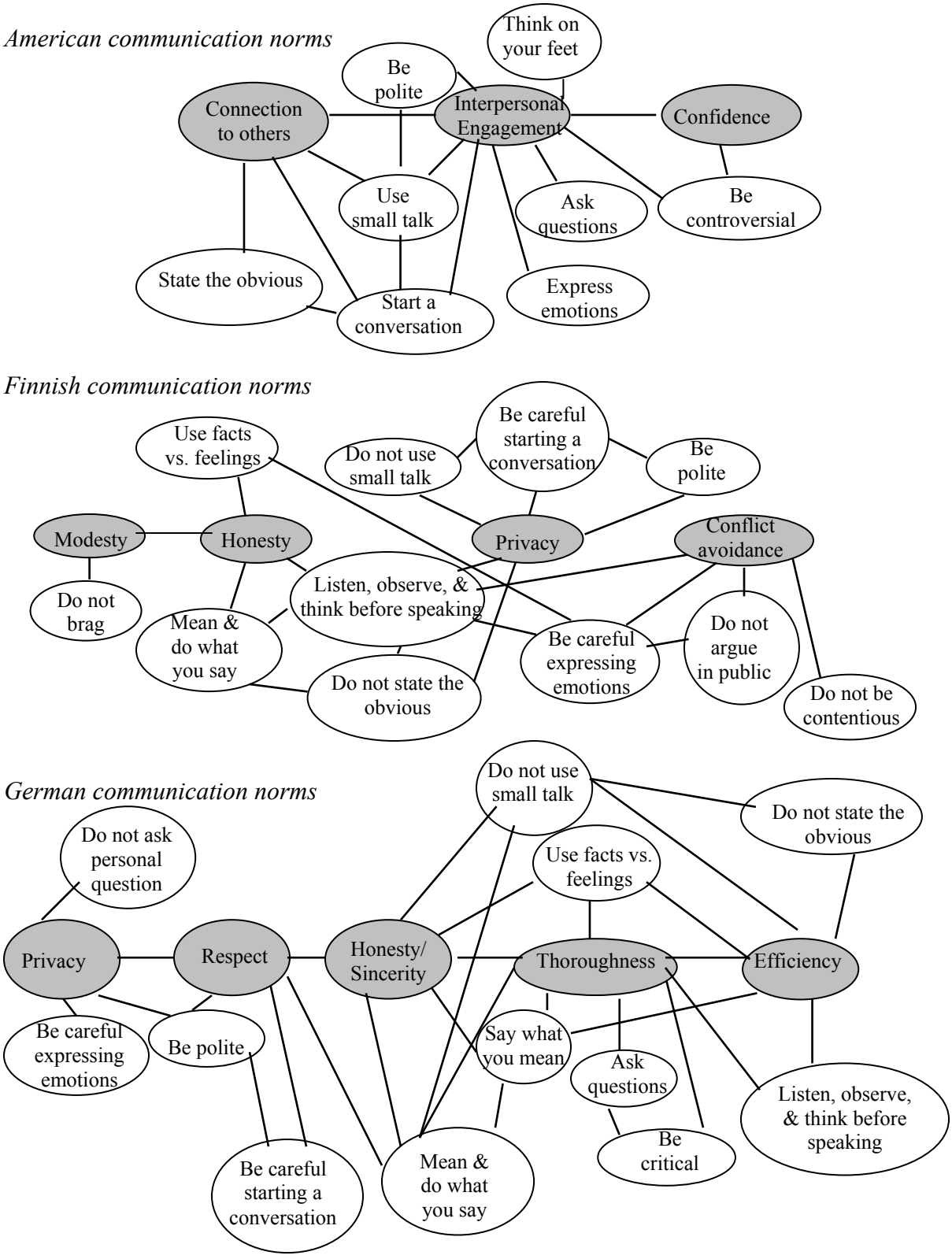

Figure 2. Culture-driven communication norms.

Appendix A – Full literature review and description of method

"We don't see things as they are; we see things as we are." Anais Nin

"Truth on one side of the Pyrenees may be falsehood on the other." Blaise Pascal

A large multinational organization has decided to create a virtual team for a previously US-based project. The company's decision was based on the fact that the project team needed members who were close to the client base in Europe. The company decided to add to the team Finnish and German team members who had previously worked with the European clients. After some initial introductions, the team members divided up the work and started working on their parts. The collaboration worked well in the beginning. But over time the team members felt that their colleagues did not really want to collaborate. The American team members complained that the German and Finnish colleagues took too long to answer their emails and never really answered all of them. For a successful collaboration, they expected timely communication among all team members. The German team members complained that their American counterparts always wanted to take control and wanted things to be done their way. They "bombarded" them with emails all the time that were only thought halfway through and that would just create more work for the Germans. The Finnish team members were frustrated because the Americans obviously did not trust them to do their work. They constantly sent emails to check on the progress without giving the Finnish colleagues time to think. After a few months, communication between the team members reached a low point. Emails were only sent when necessary. Communication was stifled by distrust,

withholding information, and underlying conflict. The team missed important deadlines, and the company lost money. In the end, the company decided that they would return to using independent local teams because they seem to work better together.

This anecdote describes an increasingly common situation: work together with team members located in different parts of the world. Nevertheless, the effectiveness of internationally distributed teams often remains below expectations (Earley & Gibson, 2002). An IDT's job is usually ill-defined. It might consist of tasks such as implementing an existing product in a new market, providing customer support around the world, designing new products for an untapped group of customers, exploring market niches, or building a client network around the globe. More often than not, members of internationally distributed teams have never met each other in person (Earley & Gibson, 2002; Hinds & Bailey, 2003). They work with each other in a technologically-mediated environment that is lacking in social cues, contextual information, and shared experiences, and that is compromised further by technological failure such as lost emails or bad phone connections. Moreover, team members of internationally distributed teams are ethnically and culturally diverse. They approach their tasks and ensuing problems with their own set of learned, culturally appropriate tools. It is quite common that these tools, although appropriate in one culture, are inappropriate in another culture.

In order to work together effectively, members of internationally distributed teams have to negotiate communication and coordination. Norms are likely to play an important role in guiding, defining, and enforcing appropriate communication and coordination behaviors (e.g., Argote, 1989; Feldman, 1984; Hackman, 1976). Group

norms are “the informal rules that groups adopt to regulate and regularize group members’ behavior” (Feldman, 1984). As previous research has shown, group norms are crucial for group processes and outcomes such as coordination, managing conflict, and helping behaviors in traditional teams whose members are collocated and homogenous with regard to diversity (Argote, 1989; Amason & Sapienza, 1997; Ehrhardt & Naumann, 2004; Hackman, 1976; Hackman & Walton, 1986; Marks, Mathieu, & Zaccaro, 2001, McGrath, 1984).

But how do team members create the norms that regulate their team's behaviors in an internationally distributed environment? Each team member already comes equipped with a set of communication and coordination norms that define appropriate behaviors in his or her own cultural context. How do differences between these cultural communication and coordination norms hinder team processes in a distributed environment, and how can team members manage their cultural predispositions to become effective team members?

Teamwork in an internationally distributed environment is significantly different from teamwork in a traditional setting with regard to interaction and communication patterns (e.g., Cramton, 2001, 2002; Jarvenpaa & Leidner, 1999; Maznevski & Chudoba, 2000; Montoya-Weiss, Massey, & Song, 2001). The technologically mediated nature of the distributed context poses many challenges to norm creation and enforcement such as delayed detection of differences in experiences, preferences and contexts, and environmental ambiguity (e.g., Graham, 2003; Hinds and Bailey, 2003; Mark 2002; Mortensen & Hinds, 2001). In this context, monitoring normative behavior and

sanctioning non-normative behavior might be difficult. On the one hand, the richness of contact and communication necessary to detect non-normative behavior and subsequently to create the conformity pressure to reinforce the established norms might be lacking (Graham, 2003). On the other hand, team members with different cultural backgrounds value different models of teamwork (Gibson & Zellmer-Bruhn, 2002); thus, it might be difficult to reach agreement on a joint group norm.

Although work in distributed contexts is on the rise and is likely to increase even more in years ahead (e.g., Earley & Gibson, 2002; Hinds & Bailey 2003), there is still a lack of knowledge regarding the processes that lead to successful team performance and other outcomes such as team satisfaction or cohesion in internationally distributed teams (Montoya-Weiss et al., 2001). Previous research has focused either on challenges related to geographic distribution (e.g., Cramton, 2001;2002; Montoya-Weiss et al., 2001; Jarvenpaa & Leidner, 1999) or on challenges related to cultural diversity (e.g., Earley & Mosakowski, 2000; Watson, Kumar, & Michaelson, 1993). In order to understand internationally distributed teamwork, researchers have to look at both of these factors simultaneously to assess their interaction. Very few authors have incorporated both factors in their research (e.g., Dekker, 2008; Köppel, 2007). Thus, the literature that exists on success factors of internationally distributed teamwork is sparse.

Nevertheless, many of the characteristics that distinguish internationally distributed teams from traditional teams, such as globalization and distance (e.g., telecommuting, distributed work, etc.) (e.g., Daly, 2007; Earley & Gibson, 2002; Gibson & Gibbs, 2006; MacDuffie, 2008), communication via technology (e.g., Driskell, Radtke,

& Salas, 2003), and ethnical and cultural diversity (e.g., Frank, 2001), are likely to become increasingly common in the years ahead. Therefore, insights gained in an internationally distributed team context will likely have implications for many other non-traditional team contexts. It is important to identify team processes that help manage the challenges that are particular to this kind of work.

The purpose of the current dissertation is to analyze the dynamics of norms in internationally distributed teams. Despite the documented importance of norms for teamwork in traditional teams, we know little about the creation and enforcement of norms in internationally distributed groups, and even less about the effect that cultural norms have on team processes in internationally distributed teams. Furthermore, previous research on the effects of cultural norms on teamwork in multicultural teams assesses culture at the macro level using dimensional systems such as Hofstede's or Trompenaar's that were designed for comparing societies rather than individual behaviors (e.g., Dekker, Rutte, & Van den Berg, 2008). In order to better predict behavior at the individual and team level, research needs to focus on culture at the individual and team level (Hofstede, 2001; Kitayama, 2002). Using an ethnographic approach to study teamwork, the current dissertation will generate new theoretical insights regarding the influence of norms on team processes and team outcomes in internationally distributed teams by focusing on the nuances of culture as they affect individual and group behavior.

Through its focus on the interplay between cultural diversity and geographical dispersion, this dissertation will assess the specific challenges of working in an internationally distributed team as opposed to a multicultural or distributed team. The

goal is to develop a model of the effect of norms on team processes and outcomes in internationally distributed teams. More specifically, I will explore the following research questions: 1) How do cultural norms and geographic dispersion interact to affect teamwork in internationally distributed teams? 2) What are specific cultural communication and coordination norms in the three included cultures (USA, Germany, and Finland) and how do they affect team processes and outcomes in the respective internationally distributed teams? 3) How do team members create and enforce group norms to manage teamwork in this context and which group norms do they create? 4) How do these group norms ameliorate the effects of cultural norms and geographic distribution?

Norms and Teamwork

Norms

Norms are an important part of group and social life (Cialdini & Trost, 1998; Feldman, 1984; Hackman, 1987; Schachter, 1951). Norms draw the symbolic boundaries between in-groups and out-groups by defining governing rules for the in-group that guide group member behaviors (Hackman, 1987). The group maintains its legitimacy and survives by sanctioning non-normative behavior that might endanger the group's social identity (Schachter, 1951; Tajfel & Turner, 1979). Because norms are not static and are constantly negotiated among group members (Lewin, 1951; Schachter, 1951), norms may serve as a critical mechanism for understanding intra- and inter-group dynamics, being both a key input as well as a key outcome variable in intra- and inter-group interactions.

Early research on norms has shown that norms have a strong influence on

coordination and effectiveness of teamwork (e.g., Argote, 1989; Schachter, 1951) as well as for team processes like managing conflict (e.g., Amason & Sapienza, 1997; Marks, Mathieu, & Zaccaro, 2001) and helping behaviors (e.g., Ehrhardt & Naumann, 2004). As Feldman (1984) explains, group norms define appropriate behaviors, set rules for collaboration, and inhibit behaviors that might be detrimental for group performance and/or the group's survival over time (e.g., underperforming, risky decision making, etc.).

According to Cialdini and Trost (1998, p. 153), "the most important characteristic of norms is that they do not exist if they are not shared with others." The degree to which norms are shared varies and determines the strength with which the norm influences behavior. Jackson (1965; 1966) developed a model to map the distribution of approval and disapproval for various behaviors in a given situation. The form of the distribution mirrors several norm characteristics. For example, the median of the distribution expresses the behavior that is most approved by group members. The range of tolerable behaviors describes the width of a norm and so on. If norms have a range of tolerable behavior that is too wide or if group members show little agreement on the most appropriate behavior, it is likely that the norm does not elicit strong behavioral responses.

To understand how norms influence team processes, Cialdini and Trost (1998) distinguish between two kinds of norms: 1) injunctive norms which prescribe valued social behavior ("ought to") and 2) descriptive norms which describe how others act in similar situations ("is"). Each norm is based on a different source of motivation. The descriptive norm describes what most people do. What is typical or normal is most likely effective; thus, the descriptive norm is fueled by the goal of choosing an effective action

(Cialdini, Reno, & Kellgren, 1990; Cialdini & Trost, 1998). Choosing a behavior that others display provides a decisional short-cut in novel or ambiguous situations and can facilitate information processing (Cialdini, 1988).

Injunctive norms, on the other hand, describe rules for morally approved or disapproved behavior (Cialdini & et al., 1990); thus, the goal at the root of this norm is building and maintaining social relationships (Cialdini & Trost, 1998). Injunctive norms imply that normative behavior is socially rewarded, while non-normative behavior is punished by other members of the group or social environment. Similarly, Lewin's (1951) research implies that a norm creates a field of forces around the individual which steers behavior towards compliance with a given norm.

In general, norms develop gradually based on the group's experiences of successful behaviors with regard to performance. Norms can be transferred from previous situations that group members perceive to be similar to the current situation (Bettenhausen & Murninghan, 1985; Bettenhausen & Murninghan, 1991) or created consciously and directly as a response to a critical event (Hackman, 1976; Feldman, 1984). In addition to norms developed by the group members, norms that are set by the group's leader can have a strong influence on group behavior (March, 1954; Sylvia & Pindur, 1978; Taggar & Ellis, 2007). However, being that the teams included in this study do not have a proclaimed leader, exploring the influence of leadership on norms is beyond the scope of this paper.

Although most norms are created by a dynamic process of team member interaction, norms are considered emergent states; thus, they are different from team

processes (Marks, Mathieu, & Zaccaro, 2001). According to Marks et al., emergent states are "products of team experiences (including team processes) and become new inputs to subsequent processes and outcome" (p. 358). Although emergent states can change over time, they are usually considered stable characteristics of a team that affect the execution of teamwork processes and taskwork. Norms are constantly reevaluated and renegotiated based on the results of the team's interaction.

Communication and Coordination

Just as norms are important aspects of teamwork, so are communication and coordination. Even more so than norms, communication and coordination behaviors underlie all team interactions and affect all team processes (e.g., Keyton, Ford, & Smith, 2008). As Vallacher, Nowak, and Zochowski (2005, p. 35) state "interpersonal relations are established through the coordination of people's thoughts, moods, and actions. Coordination is necessary for any type of sustained relationship […]." Similarly, there is no interaction and thus, no teamwork without communication.

A multitude of research has explored communication and coordination patterns that affect teamwork. One of these patterns is the use of communication and coordination norms among team members to regulate team functioning. As has been shown, communication and coordination norms affect a variety of team variables such as helping behaviors (e.g., Ehrhardt & Naumann, 2004; Perlow & Weeks, 2002), performance (e.g., Argote, 1989), cohesion/satisfaction (e.g., Christensen, Rothgerber, & Wood, 2004; Hackman, 1976), psychological safety and learning (e.g., Edmondson, 1999, 2003), and innovation and creativity (e.g., Ancona & Caldwell, 1992; Ocker 2005). Many of these

team variables are important for effective team functioning (e.g., Marks et al., 2001).

Communication and coordination expectations differ across cultures (Gibson & Vermeulen, 2003) creating different cultural norms for appropriate communication and coordination behaviors. Not only are there norms about the appropriate content but also about the appropriate process of communication (Gibson & Gibbs, 2006). These cultural differences likely cause communication clashes (Gibson & Zellmer-Bruhn, 2001). Therefore, it is important for research of internationally distributed teams to examine the factors that constitute appropriate communication and coordination behaviors in different cultures and how different communication and coordination expectations affect team member interactions.

Norms and Culture

In contrast to the group norms that are created by team members during their teamwork, cultural norms are part of what team members bring to the table when they join the team. Cultural norms are antecedents of team processes and group norms, and they affect the creation and enforcement of team norms.

Cultural norms can be defined as collective expectations of appropriate behavior in a specific context (Köhler & Berry, 2008). They are an expression of cultural values as they define desired, appropriate social behavior and ensure that undesirable social behavior is sanctioned. Schwartz's (1999, p. 25) definition of cultural values describes:

> Cultural values represent the implicitly or explicitly shared abstract ideas about what is good, right, and desirable in a society. These cultural values (e.g. freedom, prosperity, security) are the bases for the specific norms that tell people what is

appropriate in various situations.

Cultural values and norms are instilled in us over the course of our upbringing (Hofstede, 2001). They define our social identity, distinguish us from others with different cultural norms and values, and define our belongingness to a social group (Kitayama, Duffy, & Uchida, 2007). Because they are intertwined with our identity cultural values and norms affect a wide range of behaviors and are hard to change (Hofstede, 1980; Tajfel & Turner, 1979).

Although shared among individuals of the same cultural background, cultural norms and values are often implicit and unconscious (Kitayama, 2002, Kluckhohn & Strodtbeck, 1961; Oyserman, Coon, & Kemmelmeier, 2002; Schwartz, 1999), especially when individuals have never directly experienced a culture different from their own (Berry et al., 2009; Berry, Carbaugh & Nurmikari-Berry, 2004, 2006; Carbaugh, Berry & Nurmikari-Berry, 2006). When asked about their culture, team members often attribute differences in behavioral tendencies and patterns among members of their own culture to individual differences. Only through the observation that their behavior patterns as a whole are different from those of the cultural strangers on their international team do they become aware of the shared underlying cultural norms that drive their behavior (Berry et al., 2009; Köhler & Berry, 2008).

This also applies to cultural norms for communication and coordination. As defined by Köhler and Berry (2008), “cultural communication and coordination norms are yardsticks that often unconsciously or implicitly provide a range of appropriate communication and coordination behaviors in a society”. These cultural norms affect

how individuals perceive, understand, and interpret information and how they react to a given communication event (Philipsen, 1997; Philipsen, Coutu, & Covarrubias, 2005). When members from different cultures interact, it is likely that their respective behavioral expectations will clash and that they will find themselves in an incoherent social context that is hard for them to interpret and that is influenced by a power struggle between the team members' cultural values (Gumperz, 1982; 2001). This can create challenges to effective group functioning and successful group processes.

Cultural Communication Norms

In the case of communication norms, failure to realize that one's own communication behavior and the communication behavior of the culturally different other on the team are influenced by cultural norms can lead to misunderstandings, misinterpretations, and conflict. For example, Carbaugh et al. (2006) describe differences in being comfortable with quietude between Americans and Finns. The authors highlight how the Finns' comfort with quietude can be unsettling to Americans who might misinterpret the quietude as being exclusive, being in a bad mood, or maybe being dissatisfied with one's communication partner. As Lewis (1996) points out, for Americans the Finnish preference for quietude and reservation towards strangers can often result in feelings of isolation and rejection.

As another example, Carbaugh (2005) describes differences in the value of "small talk". For Americans engaging in "small talk" is a polite way to be friendly to people and to take a first step towards building a relationship with them. Finns often perceive "small talk" as an intrusion into their privacy and find the exchange shallow and superficial.

Previous research has shown that this often leads to misunderstandings and challenges to American/Finnish communication exchanges (e.g., Berry et al., 2004; Carbaugh et al., 2006). Lack of knowledge about the cultural other's communication and coordination preferences can result in unintentionally offensive behavior resulting in intercultural conflict.

A common misunderstanding when dealing with Germans is that the German formal address "Sie" in combination with the use of last names versus the informal address "Du" in combination with the use of first names is related to communicating and establishing hierarchical relationships (e.g., Lewis, 1996). As described in Gannon's book (2004), in most social situations (including work) Germans use the formal address in combination with the use of last names. Only family members and very close friends use the informal address and first names. However, expression of hierarchical relationships is only one of 25 identified uses of the formal address in German (Winchatz, 2001). In most situations, formal address is used to be polite and express respect for each other. In multinational teams, especially in teams in which team members from cultures that are used to address each other on a first name basis, the use of formal address might seem stiff and unapproachable when at the same time the German colleagues would want to be polite and express their respect for the other team members. These small differences can hinder relationship and trust building in multicultural teams. It is important to assess systematically how these and other cultural differences in communication norms affect team processes in internationally distributed teams given the geographic distribution between team members and the lack of shared

face-to-face context.

Cultural Coordination Norms

Similar observations can be found in research on cultural differences in coordination behaviors. Giving an example of his experiences in German/American software teams, Thiele (2001) highlights the different cultural expectations for efficient teamwork and coordination:

> As a proof for activities our American colleagues sent us numerous updates on documents, each one incomplete and of preliminary status. If the documents had to be translated, this especially proved to be an inefficient back and forth procedure. Even after deadlines had expired, more updates kept coming in and endangered the project schedule. Those updates were sent to everybody's attention, also via mailing lists to people who were only remotely involved, which for us proved to be a time consuming way of working. (We seemed to accumulate piles of papers in different projects!) […] To the Germans involved with the different German/ American projects the American way of working seemed in some respect to be rather inefficient. However, we also experienced that our American colleagues compensated this by extra work that often far exceeded German office hours. This flexibility helped us finish the different projects on time. (http://www.tc-forum.org/topicspe/sa25impr.htm)

Similar to Thiele, Brislin and Kim (2003) analyzed differences in temporal concepts across cultures and offer an excellent summary of ten different temporal concepts that affect international interactions among business partners. Brislin and Kim

distinguish between two clusters of time perceptions: 1) attitudes toward flexibility of time and 2) attitudes toward the pace of time. The first cluster is comprised of whether or not people follow schedules or follow the natural course of events, whether people are sensitive to deviations from appointed times, the ratio between task-time or social-time, doing one thing versus several things at a time, and the value of efficiency versus effectiveness. The second cluster includes whether people prefer slow versus fast paces of life, how they deal with silence, their orientation towards the past, present, or future, the symbolic meaning of time, and how important work is in comparison to leisure time.

Differences in these perceptions and preferences will influence coordination behaviors between team members. If the differences go undetected or are not identified as cultural differences, it is likely that disruptions and conflict ensue. Furthermore, given the disruptive nature of geographically distributed collaboration that in part dictates its own temporal structure (Montoya-Weiss et al., 2001; Malhotra & Majchrzak, 2004), it remains unclear how these different temporal concepts affect coordination and teamwork in internationally distributed teams. A more detailed assessment of the effect of cultural coordination norms on internationally distributed teamwork is necessary.

Norms and Geographic Distribution

Previous research has shown that norms are a vital concept for electronic communication regulating the how and when of communication (Ferrara, Brunner, & Wittemore, 1990). As mentioned above, research on distributed teams has identified several challenges to communication and coordination, all directly or indirectly related to the sharing of knowledge and context across geographical distance. Sharing of context

and communication are important for norm development and enforcement, as well as for the negotiation and creation of new team norms (Schachter, 1951). In distributed teams, this shared context is lacking (e.g., Cramton, 2001; 2002). Nevertheless, given enough time and opportunity for interpersonal exchange, norms do in fact develop (Graham, 2003; Postmes, Spears, & Lea, 2000). In the following, challenges to norm development, enforcement, and communication will be explored.

Development and Enforcement of Group Norms in Distributed Teams

Saunders and Ahuja (2006) postulate that norms for technology-mediated communication take time to develop. Given the temporary nature of many distributed teams, research has suggested that norms for collaboration should be created deliberately when the team is founded (e.g., Duarte & Snyder, 1999; Knoll & Jarvenpaa, 1999; Montoya-Weiss et al., 2001). Along the same lines, research by Graham (2003) and by Postmes, Spears, and Lea (2000) has shown that norm creation in distributed teams requires much more non-task related, interpersonal communication about appropriate behaviors than in collocated teams. Postmes et al. (2000) found that in groups that successfully created group norms via computer-mediated communication 74% of the messages among group members were exchanged with regard to interpersonal topics, whereas virtually no messages were exchanged about the task.

Graham's study (2003) showed that norm development in computer-mediated teams underlies a cyclical process of norm proposal, discussion/negotiation of norm boundaries, acceptance of the norm, compliance with or violation of the norm, and attention to differences in understanding of norm boundaries, which ultimately restarts

the cycle with a new norm proposal. Graham finds that the most prevalent influence on team norms was past experience of the team members.

Challenges to Norm Development and Enforcement in Distributed Teams

In internationally distributed teams past experiences can differ enormously due to the differences in context and cultural norms. In order for norms to lead to significant outcomes like stronger performance or more coordination, it is crucial that agreement about norms exists; i.e., team members know what behaviors are appropriate and generally accept these norms (Argote, 1989; Jackson, 1966). This can potentially pose a challenge to the norm development process in internationally distributed teams as behaviors acceptable in one context or culture may not be acceptable in another context or culture (Furst, Blackburn, & Rosens, 1999).

Another reason why norms evolve is that previous team interaction has been considered ineffective by team members. Learning from these past experiences, team members try to change and improve existing norms of working together (Feldman, 1984; Graham, 2003). However, team members of distributed teams often don't realize that their interaction patterns are flawed, and communication failures can go undetected for a long time (Mark, 2002). Furthermore, team members are more likely to attribute communication failures to personal characteristics of their remote team members rather than to the context of computer-mediated communication (Cramton, 2002) or cultural communication differences (Berry, Carbaugh, Innreiter-Moser, Nurmikari-Berry, & Oetsch, 2009) and therefore, might be less likely to perceive the need to create or change corresponding group norms.

Being that many contextual cues get lost in computer-mediated communication (e.g., Cramton, 2001; 2002; Fiol & O'Connor, 2005), it is harder, maybe even impossible, to adapt norms from 'observing' other team members' behavior (i.e., descriptive norms; Cialdini & Trost, 1998; Finholt & Sproull, 1990). Rather, norms need to be stated openly and discussed among all team members (i.e., prescriptive norms; Cialdini & Trost, 1998) to create commonly accepted and stable rules for behavior (Graham, 2003; Early & Mosakowski, 2000). In addition, Costarelli (2005) shows that norms and their importance need to be made salient, otherwise team members might not feel the obligation to follow them.

Having discussed the importance of norms for teamwork as well as the influence of culture and geographic distribution on norm creation and maintenance, the following part of this paper will explore the consequences of differences in cultural norms and geographic dispersion for team processes. Special attention will be given to the interplay between culture and dispersion to fill this previously mentioned gap in internationally distributed teams research.

Teamwork in Internationally Distributed Teams

As was mentioned by Hofstede (1991), Schwartz (1994), and others, cultural values and norms are part of our "hardwiring" similar to personality characteristics. Cultural norms drive our behaviors on a deep level, are rarely conscious or explicit, and are resistant to change (e.g., Hofstede, 1980; Kluckhohn & Strodtbeck, 1961; Schwartz, 1994). Cultural norms provide us with guidelines of how to perceive, interpret, and react to a certain behavior (Earley & Gibson, 2002; Gibson, 1997). In newly formed

internationally distributed teams, variability in characteristics of cultural norms will make it difficult to create and agree upon a common set of norms as the team members will have to adapt their existing norms for communication and collaboration.

This is particularly difficult in a distributed context. The fact that cultural norms are often implicit and unconscious makes it likely that team members in one location neglect or underestimate the influence that culture has over and above individual differences on the international colleague's behavior. Moreover, being that it is rather common that members of internationally distributed teams have never been to the other location or have met their international colleagues (e.g., Earley & Gibson, 2002; Hinds & Bailey, 2003), team members often don't know enough about the other culture to be able to interpret certain behaviors as cultural or personal (Osland & Bird, 2006). On the other hand, due to the same lack of knowledge and differentiation, once a cultural difference has been identified, team members in the other location are likely to overuse this new cultural stereotype and assume all similar behaviors to be due to cultural norms (Osland & Bird, 2006).

Thus, conflict is likely to result from cultural differences among team members as well as from differences in locations and differences among the individuals on the team (e.g., Hinds & Bailey, 2003). The resulting frustration about the process in conjunction with the higher likelihood of committing the fundamental attribution error increases the chances of intra-team conflict and decreases trust among team members. This also will affect the creation of effective team norms for the internationally distributed team. In the long run, this can develop into a vicious circle as team members who are frustrated with

the other side and who don't trust their international colleagues often fail to share enough information with their international team members (e.g., Jarvenpaa & Leidner, 1999). Hence, geographic distribution can even strengthen the negative effects of cultural differences in an IDT environment.

Given this previous research, I propose that cultural norms for communication and coordination will initially make teamwork challenging as the different cultural norms prescribe different appropriate behaviors. In order to establish successful communication and coordination norms for their team, internationally distributed team members have to become aware of their cultural norms, discuss them openly, and create team norms that can help them manage their communication and coordination differences. Operating in a distributed context will make this process more difficult and prone to conflict. Observing how teams engage in this negotiation process will provide important insights into how the challenges might be overcome and what kind of support can be provided. In the following, consequences of different cultural norms and geographic dispersion for team processes in internationally distributed teamwork will be explored in more detail.

This process is similar to Maznevski and DiStefano's (2000) model of beneficial group processes in global teams. The authors suggest three group processes, mapping, bridging and integrating, that help global teams to be effective. Mapping includes identifying and understanding "the team's compositional differences" (p.197) and how they can be assembled in a team diverse in knowledge and approaches to interpersonal interaction. Bridging involves communicating these differences, and integrating means creating a common team interaction approach that builds on the differences to generate

team performance. While the current dissertation will gather and provide empirical evidence for processes similar to the ones described by Maznevski and DiStefano's (2000), it will also extend these propositions by assessing how these processes affect norm formation and subsequently other team processes important for team functioning (such as conflict management or motivation).

Consequences for Team Processes

The current dissertation uses Marks et al.'s (2001) recurring phase model of team effectiveness to capture the dynamic nature of teamwork in general and the norm creation and enforcement process in specific. The model distinguishes between three categories of team processes: transition processes, action processes, and interpersonal processes. Transition processes are used in teamwork phases, in which the teams are primarily engaged in evaluation and/or planning activities. Transition processes include mission analysis, goal specification, and strategy formulation and planning. Action processes are used in phases when the team actually becomes active and performs. Action processes include monitoring progress towards goals, systems monitoring, team monitoring and backup responses, and coordination activities. Finally, interpersonal processes are used to manage team member interaction. Interpersonal processes include conflict management, motivation/confidence building, and affect management.

The recurring phase model captures the dynamic of effective team performance by highlighting the influence of temporal factors on teamwork. Marks et al. (2001) argue that different team processes are critical at different phases of teamwork. Thus, teamwork actually shows a cyclical pattern of Input-Process-Outcome relationships over time.

Outcomes of teamwork during an earlier cycle become input for the next cycle. These outcomes/input factors are called emergent states. Thus, teamwork according to the recurring phase model happens in a form of Input-Process-Emergent State-Process-Outcome. As was described above, norms are considered emergent states as they are developed based on previous team experiences of team processes and subsequently influence team processes.

Marks et al. (2001) recommend measuring at least one process variable in each of the three categories to gain a more complete understanding of how processes affect team performance. They further recommend measurement of several dimensions of interpersonal process variables, especially when, such as in the current dissertation, longevity and satisfaction are important aspects of team effectiveness. Following these suggestions, the current dissertation includes dimensions from all three process categories, focusing specifically on interpersonal processes. Furthermore, as Ilgen, Hollenbeck, Johnson, and Jundt (2005) suggested it is important to look beyond the exclusively linear relationships between variables that traditional I-P-O models imply and include possible interactions between the different variables as well as interactions with characteristics of the context.

In the following sections, it will be examined how cultural norms (input variable) and geographic distribution (context variable) affect the following processes: a) interpersonal processes: conflict management, trust and social cohesion (affect management), and motivation, b) transition processes: group decision making (goal

specification), and c) action processes: coordination and collaboration (team monitoring and backup).

Interpersonal Processes

Conflict management. In their seminal study on diversity and conflict in top management teams, Amason and Sapienza (1997) showed that communication norms can affect whether diversity leads to more affective or cognitive conflict among group members. Cognitive conflict has been described as task-related conflict that makes the group evaluate all possible alternatives and perspectives and increases the likelihood to make the right decision, while affective conflict has been described as emotion-related conflict that arises from the clash of personalities and leads to personalized disputes. Communication norms that foster open expression of disagreement or differences in opinion increase the likelihood of cognitive conflict and decrease the likelihood of affective conflict, as do norms for mutual responsibility and accountability for the final decision.

Along the same lines, Jehn and Mannix (2001) found that open discussion norms were positively associated with task conflict in high performing teams. They also showed that norm setting with regard to the procedural aspects of teamwork is beneficial in the beginning of a collaboration. Teams that engage in storming and norming early on in their collaboration can prevent conflict that may arise from different preferences for how the team works together. Teams that do not manage to overcome the storming phase and fail to create norms for teamwork, are likely to continue to experience negative behavior patterns (Bettenhausen & Murninghan, 1985).

Extending the research on conflict in traditional teams, previous research has examined cultural differences in conflict management and supporting communication norms. Spanning across cognitive, affective, and procedural conflict is the concept of intercultural conflict. Ting-Toomey (1999, http://personal.anderson.ucla.edu/richard.goodman/c4web/Mindful) defines intercultural conflict as the "perceived or actual incompatibility of values, norms, processes, or goals between a minimum of two cultural parties over content, identity, relational, and procedural issues." According to her research, intercultural conflict negotiation is influenced by differences in conflict communication norms, conflict styles, and different conflict rhythms (i.e., coordination of conflict). Communication norms that might help overcome these challenges include mindful listening (paying attention to all aspects of the communication like sounds, tones, gestures, movements, nonverbal nuances, pauses, and silences) and mindful reframing of the issues.

However, technology-mediated communication is often void of these cues (e.g., Cramton, 2001; 2002). For that reason, Hinds and Bailey (2003) and Mortensen and Hinds (2001) argue that all conflict is affective conflict in a distributed context. Hinds and Bailey explain that the lack of shared information in distributed teams keeps them from evaluating all different perspectives and pieces of information, which prevents the positive aspects of cognitive conflict. Furthermore, technology-mediated communication oftentimes delays and inhibits the open exchange of ideas and therefore, cognitive conflict. The resulting frustration about the process together with the increased likelihood of committing fundamental attribution errors (see above, Cramton et al., 2007) result in

more affective conflict among the team members, which is further fueled by interpersonal and cultural differences and by the lack of familiarity and trust among team members.

Research by Montoya-Weiss et al. (2001) and by Malhotra & Majchrzak (2004) has found that temporal coordination in IDTs can moderate the effects of conflict management behavior on team performance. Geographically distributed teams tend to work out of sync, and common coordination mechanisms oftentimes do not exist. Montoya-Weiss et al. showed that creating a formal coordination process balanced the effects of maladaptive conflict management behaviors and improved team performance. Along the same lines, Malhotra and Majchrzak were able to show that teams experienced less conflict when they created communication norms that synchronized communication during the week by forcing all team members to inform each other of their task progress and critical knowledge they received.

However, although both studies were conducted in an internationally distributed team context, the authors of both of these studies did not take into account the cultural differences in communication and coordination norms and preferences among the teams' members. They did not explore how the created coordination norms helped the team members manage the intercultural conflict created by cultural differences between them. Furthermore, Malhotra and Majchrzak's (2004) research only included successful teams, so it is difficult to assess whether the creation of synchronized communication norms helped the team become successful or whether other factors were responsible for the team's success.

The current dissertation adds to existing research by establishing which cultural communication and coordination norms generate conflict among team members and in what way. A further goal is to determine how technology-mediated communication across distance enhances the negative effects of these cultural norms. In addition, this dissertation will explore if mindful listening and reframing a la Ting-Toomey can help internationally distributed teams to manage their cultural differences.

Trust. Trust has been shown to be an important factor for team functioning. Previous research has linked trust to numerous outcome variables such as performance and satisfaction (e.g., Ilgen et al., 2005). Trust can be essential for reduction of uncertainty or ambiguity of a situation and of the likelihood that an ambiguous or uncertain situation leads to a negative outcome (Mayer, 1995; Porter & Lilly, 1996; Moorman, Deshpande, & Zaltman, 1993). Thus, trust might be especially important for distributed teams to overcome uncertainty and the lack of mutual knowledge (e.g., Staples & Webster, 2008).

In the context of internationally distributed teams, Jarvenpaa and Leidner (1999) showed that teams that displayed trusting behavior were more capable of managing complexity and uncertainty in the virtual environment. Nevertheless, previous research implies that the diversity in cultural and geographic backgrounds as well as the physical separation between team members challenges the emergence of trust (Bradach & Eccles, 1989; Handy, 1995) in internationally distributed teams. With regard to challenges of cultural diversity, Yamagishi and Yamagishi (1994) found that Japanese often report lower levels of trust in comparison to Americans. The authors suggest that trust is

communicated differently in Japan versus the US. While Japanese communicate mutual assurance, which is based on the stability of interpersonal relationships, Americans try to reduce social uncertainty by relying on personal knowledge and/or reputation.

Similarly, Fischlmayr, Lähteenmäki, and Saarinen (2007) found that Finns, Germans, and Americans have different schemas for trust, build trust on different premises, and react differently to a break of trust. In a simulated business game in multicultural, virtual student teams, Fischlmayr et al (2007) observed that Finns and Germans showed rule-based trust and assumed that others would follow the rules of the game just as they did. The Finns were particularly shocked when the Americans initiated a business strategy targeted against them that was against the rules but promised to have the highest business returns. As the researchers suggest, in Finland and Germany maintaining trust is linked to moral, ethical, and professional behavior in business settings and is expected among business partners, while business relationships in a US cultural context do not necessarily require trust and are often built without it. After the break of trust, the Germans were able to reestablish trust with the Finns, but the Americans were not. The previous research suggests that the concept of trust itself has different meanings and is based on different communication patterns across cultures.

In addition, research by Rocco, Finholt, Hofer, and Herbsleb (2000, as cited by Olson & Olson, 2003) showed that team members trust collocated colleagues more than colleagues who are remote. As Cramton (2001) found, dispersed members often fail to recognize the different contextual situations that exist in different locations, fail to share information equally with all team members, and fail to attribute communication

breakdowns to technological causes rather than to personal characteristics (Cramton et al., 2007). Being that two important factors for trust are integrity and consistency (Mayer et al., 1995), inconsistent communication, or the perception thereof, can result in a loss of trust among team members (Jarvenpaa & Leidner, 1999; Jarvenpaa, Knoll, & Leidner, 1998).

Of some help to establishing trust in a distributed setting is the exchange of personal information with remote team members (e.g., Rocco et al., 2000 as cited by Olson & Olson, 2003; Zheng, 2002). When there is a lack of personal knowledge about remote team members, establishing rule-based trust can be helpful (Kramer, 1999). It can be argued that teams that have strong norms might not need high levels of trust as the norms reduce ambiguity and uncertainty and clearly define appropriate behaviors (e.g., Kramer, 1999). As Jarvenpaa, Shaw, and Staples (2004) argued, in situations that are characterized by strong structure, trust is likely to play a weak role because the structure provides information and cues about how others are likely to behave. According to the authors, strong structure is built via communication about goals, processes, and expectations. As March and Olson (1989) described, if interactants are socialized into and experience continuous adherence to the rules, then mutual trust can be relied on. In an experimental study, Sapper (2003) manipulated frequency-of-communication norms in student teams that were instructed to work on a short-term project in a distributed context. Teams for which frequency-of-communication norms were set exhibited significantly higher levels of trust. Thus, norms might act as a proxy for trust in internationally distributed teams.

Being that no research has explored this function of norms for trust in internationally distributed team, this is an open research question which the current dissertation will explore. Specific attention will be given to potential differences in the actual meaning of trust in the three involved cultures and how these differences drive norms for trustworthy communication and subsequently affective team processes for trust building and maintenance in internationally distributed teams.

Cohesion. Norms mark the boundaries of the group and reflect its social identity (e.g., Tajfel & Turner, 1979; Marques, Abrams, & Serodio, 2001; Abrams, Marques, Bown, & Dougill, 2002). This becomes especially important when team members violate norms and thereby threaten the group's distinctiveness and legitimacy. Norm violation is often punished, and attempts to convince the violator to return to norm-obeying behavior are often made, thus maintaining cohesion among group members (Schachter, 1951).

Schachter (1951) defines cohesiveness as "the total field of forces acting on members to remain in the group". Using its internal power, a group will exert forces on its members to stay in the group. Creating group norms and punishing behaviors that violate this norm maintains the cohesiveness of the group. Punishment of behaviors that are counterproductive for goal attainment or threaten to split up the group into fractions also helps to make the boundaries of the group salient (e.g., Schachter, 1951; Dentler & Erikson, 1959; Hackman, 1976; Longley & Pruitt, 1980). Ultimately, these efforts protect the group from external and internal interference.

Communication norms, as all norms, thus, are a carrier for the group's identity and need to be enforced to reflect and maintain the boundaries of the group. In

internationally distributed teams, this function might be especially important, as the group also needs to manage cultural communication norms that reflect the team members' cultural identity. At the same time, it is likely that it will be more difficult to create a common set of norms and to foster group identification in internationally distributed teams precisely because of the team members' differences in cultural communication and coordination expectations, which are part of their upbringing and self-identity and thus, resistant to change (e.g. Hofstede, 1980; Schwartz, 1994). However, once a common set of norms is created, this common culture is likely to increase feelings of group cohesion and commitment (e.g., Earley & Mosakowski, 2003).

Maintaining cohesion in a distributed team is difficult. As Mark's (2002) research has shown team members of internationally distributed teams are often unaware of issues at the remote location. Thus, it is likely that non-normative behavior might go unpunished and thus, norms would not be enforced as they should be. Similarly, Scholz (2004) found that the best mechanisms for building and maintaining cohesion were frequent personal and task communication among team members that was sensitive to differences in time zones. Scholz's research thus implies that communication (with regard to frequency and content of communication) and coordination (with regard to the timing of the communication) norms may be important for building cohesion in distributed teams.

However, differences in cultural communication norms can hinder this frequent and open exchange. Referring back to the example of Finnish cultural communication norms given earlier, Finns tend to feel much more comfortable with silence than

Americans do (Berry et al., 2004; 2006; Carbaugh et al., 2006). As Berry and colleagues found, Finns tend to engage in personal talk less frequently and feel less comfortable exchanging information about themselves or their families. Similarly, Fischlmayr et al. (2007) observed that among the participants in their simulated business project Finns communicated least frequently with their colleagues. When internationally distributed teams are aware of the fact that some team members do not communicate consistently and equally, the team becomes less cohesive Knoll (2001).

Past research has not systematically assessed how differences in cultural communication and coordination norms affect group cohesion. Furthermore, it is unclear whether the creation of appropriate team norms targeted at maintaining an agreed upon level of communication can balance the effects of cultural norms given that fact that these norms have to be upheld across the geographic distance. The current dissertation will explore these questions and examine the influence of cultural communication and coordination norms and geographic dispersion on the creation and maintenance of group cohesion.

Motivation. Marks et al. (2001, p. 368) state that motivation "includes encouraging team members to perform better or to maintain high levels of performance. Teams motivate members by communicating their beliefs about team ability (e.g., pep talks), competence on particular tasks, and feedback on team success." Motivation both at the individual and at the team level has received attention in traditional teams research over the last decades (Guzzo & Dickson, 1996). Gelfand, Erez, and Aycan (2007) summarize research that seems to indicate that some motives are universal across cultures

(such as self-efficacy or need for achievement) but highlight that "the specific factors that drive such motives vary across culture" (p. 482). Steers and Sanchez-Runde (2002) argue that three sources of motivation are influenced by national culture: 1) people's self concept (i.e., personal beliefs, needs, and values; 2) achievement concepts and norms about work ethic (i.e., tolerance for ambiguity, locus of control, etc.; and 3) "environmental factors" (i.e., education, prosperity, legal systems, etc.).

Along these lines, Szabo's (2007) qualitative study on participative management across five European countries has found several different factors that determine how workers in the five included countries are motivated. Two of the compared countries are Finland and Germany. According to Szabo, German managers are expected to motivate their subordinates using intrinsic motivation, rather than extrinsic motivation. Teamwork and participation are two ways to use intrinsic motivation. In general, Germans value expertise and many become experts in their profession over the course of their professional careers staying within the same job and often with the same company for their whole work life. German employees like to be part of expert teams and believe that this is the most effective way of working. The opportunity to work independently in these teams as well as to participate in decision-making and problem-solving is highly motivating to German employees. Finns, on the other hand, value autonomy and quality. According to Szabo (2007), Finns are motivated by autonomy, clear responsibility for tasks, and mutual trust to fulfill one's role. Managers are expected to empower subordinates to independently work on tasks and to give them decisions latitude about how to do their work.

Given cultural differences in what motivates employees, it is likely that internationally distributed team members will face challenges in motivating each other. Furthermore, different norms for communication and coordination determine appropriate motivating behaviors. Neier and Harzing (2008) found culturally determined communication differences related to style of criticism among the participants in their study at the European Commission. While criticism style had to be more indirect and depersonalized in Southern Europe, Northern Europeans were more comfortable with a direct, straight-to-the-point style of criticizing. Similar patterns seem to hold up in individualistic versus collectivistic cultures, Matsumoto (2004) reports that Americans were frustrated with the implicit and informal feedback that Japanese managers provided. Nevertheless, Gelfand et al. (2007) conclude that too little research has been done on how feedback works in intercultural settings.

Different cultural coordination norms are also likely to affect motivation in internationally distributed teams. For example, when giving feedback it might be important not only to know how to give feedback but also when to give feedback. As Szabo (2007) highlighted, Finns strongly value autonomy such that they expect their manager to let them work completely independently and to trust them that they will approach him or her when they have a problem. Providing feedback without having been asked for it might violate a subordinate's need for autonomy. On the other hand, while Germans like to work independently as well, they also expect the manager to monitor the team and interfere when team functioning is endangered. In addition, Germans highly

value learning and effectiveness. Providing immediate feedback is part of a manager's responsibility.

Not only are there different cultural preferences for how to motivate and when to motivate, geographic distribution is likely to negatively affect motivation. Given the delayed detection of issues mentioned before (Mark, 2002), it is likely that motivation and criticism will not happen at the culturally preferred or even the most effective time. Furthermore, given that many issues go unnoticed in a distributed environment (Hinds & Bailey, 2003) opportunities to motivate and criticize are likely to be missed. Even worse, team members might be criticized for mistakes they have not committed given the higher likelihood of committing the fundamental attribution error (Cramton et al., 2007). In addition, research by Howell, Bowen, Dorfman, Kerr, and Podsakoff (1997) and Howell, Neufeld, and Avolio (2005) has shown that leadership styles that are considered as highly motivating in face-to-face contexts (such as such as transformational leadership) may not be effective in a distributed context. Howell and colleagues concluded that physical distance can function as a neutralizer, especially when distances between the parts of the work team become so large that their time zones hardly overlap.

Previous research has not yet explored how cultural differences in preferences for motivation affect teamwork across a distance, nor how team members of internationally distributed teams can keep each other motivated. In addition, it is not clear how motivation is communicated and coordinated in internationally distributed teams and how specifically the distributed context contributes to the challenges of motivation. The current dissertation will contribute to current research by exploring these questions.

Transition Processes

Group decision making. Current group decision-making research focuses predominantly on how group members share information and influence each other (Kerr & Tindale, 2004). For example, Stasser and Titus (1985) found that groups often ignore information that was not shared among all group members and focus on shared information. On the other hand, if groups manage to pool and discuss the unshared information that each group member possesses, decision quality increases (Winquist & Larson, 1998).

Decision-making quality in groups has been shown to be strongly influenced by group communication norms. For example, if the norm for expressing agreement among group members is stronger than a norm for making the right decision, then groupthink can be the consequence (Janis, 1972; Longley & Pruitt, 1980; Hackman & Walton, 1986). Groupthink is related to negative performance outcomes such as escalation of commitment to a specific task approach when this approach is detrimental to reaching the goal (Janis, 1972; Kreitner & Kinicki, 2004).

Postmes, Spears, and Cihangir (2001) produced similar findings for distributed groups. They showed that distributed groups holding norms of critical thinking rather than norms of consensus displayed better quality of decision making processes by processing new information more thoroughly. Diversity research also points to the usefulness of reflection and open discussion to overcome the failure to share unique information. In Watson and Kumar's (1992) research culturally diverse groups indicated more frequent withholding of information, failure to become involved, hostility, and lack

of preparation, which in turn led to lower performance on group decision-making tasks. Similar to the research cited above, diversity research has also suggested that fostering reflexivity, i.e., critical reflection about team strategies and processes (e.g., Schippers, Den Hartog, Koopman, & Wienk, 2003), can positively affect group processes like open communication, supportiveness, and conflict management as well as motivation and confidence building.

Similar to Hinds and Bailey's (2003) argument regarding negative consequences of task conflict in distributed groups the question is if norms for critical thinking will enhance decision-making quality in distributed teams when simultaneously they might increase affective conflict among team members. Following Hinds and Bailey's thinking, the latter might lead to a decrease in cohesion and trust, and subsequently to lower satisfaction. Furthermore, diversity research has yet to explain which aspects of the team members' diversity lead to the reported challenges. Research on cultural communication norms has not yet been integrated to explain differences in and challenges to the decision-making process.

For example, Berry et al.'s (2009) research implies that Finnish communication norms might have both beneficial and detrimental effects on group decision-making processes. For example, the Finnish communication norm that prescribes listening to other people until they are finished talking might enhance the exchange of unshared information because team members would not interrupt each other before they have communicated everything they intended to. Furthermore, according to Berry et al. this pace of communication grants moments for reflection about the information. Detrimental

communication norms might be that Finns tend to remain quiet even if they disagree, if they do not yet have a good counter argument (Berry et al., 2009). In addition, Finns do not value sharing thoughts they have not yet had the time to think about, which decreases their participation in brainstorming activities.

The current dissertation will contribute to internationally distributed teams research by examining and integrating the effects of cultural communication norms on group decision-making in a distributed environment. Along the lines of Hinds and Bailey's (2003) criticism of conflict management in internationally distributed teams, it will also be explored whether the benefits of reflexivity hold up in a distributed, multi-cultural team context.

Action Processes

Coordination. As was summarized above, coordination is a seminal process in teams, regulating team efforts (roles and temporal alignment) and the use of resources (e.g., Faraj & Sproull, 2000; Perlow, 2001). With regard to temporal coordination, research has shown that being sensitive to the time teams spend on a task as well as the temporal constraints outlined by the organization are important success factors for teamwork. For example, Janicik and Bartel (2003) found that norms of time awareness in groups cause team members to pay more attention to the temporal planning of task accomplishment which eventually leads to better coordination and task performance. Going one step further, Ancona and Waller's (2007) research on entrainment in software development teams shows that temporal norms in the organization even have a stronger influence on team task performance and deadlines than do the actual task demands.

However, internationally distributed teams research has to take into account different cultural preferences for coordination and timing.

For example, Brislin and Kim (2003) offer an excellent summary of ten different temporal concepts including punctuality, the appropriate ratio of work and social time, and how people react to silence that affect international interactions among business members. However, they do not explore how these different concepts of time affect communication of temporal concepts or coordination among team members with different cultural background.

Research on role coordination has shown that coordinating team members' roles on the team is crucial for team functioning. For example, Walz, Elam, and Curtis (1993) observed that major obstacles for project outcomes included failure to coordinate team efforts and to share and integrate knowledge. Faraj and Sproull (2000) found that expertise coordination is an important factor for team performance. Furthermore, they argued that recruiting the best experts for a team is not sufficient for team performance if their efforts are not coordinated. However, norms regarding appropriate role assignments and responsibilities are likely to differ across cultures and might create challenges in a distributed context.

For example, Szabo's (2007) study on participative management across five European cultures finds that Finns and Germans value autonomy, quality, and participation. However, the meaning and expression of these values differs slightly but significantly for Germans and Finns. Due to their comfort with quietness, Finns expect to work without supervisory guidance, to have sole responsibility for quality work, and to

have the discretion when to contact their supervisor for help. Due to their belief in co-determination, Germans place high value on participation in decision making and problem solving. German subordinates value expertise and are often specialists in their area of work. They want to contribute this expertise in a team of specialists. The leader's role is seen in providing the resources and boundary conditions for work, to assign roles, and only to intervene when team functioning is endangered. These cultural differences in coordination expectations are likely to create difficulties for coordination in internationally distributed teams. Research still has to identify the specific cultural coordination and communication norms that affect coordination behaviors as well as the mechanisms through which these norms influence coordination processes.

Similar to research on the impact of cultural diversity, research in a distributed team context finds challenges for coordination. Straus and McGrath (1994) compared productivity on discussion tasks of face-to-face groups and electronically-mediated groups. They found that face-to-face groups outperformed electronically-mediated groups on tasks that required higher levels of coordination. On the other hand, Montoya-Weiss et al. (2001) were able to show that by creating a formal coordination process in global virtual teams the generated coordinating mechanisms ensured team performance by balancing the effects of maladaptive conflict management behaviors. Although the coordination mechanism in this case was based on technology, it can be argued that strong group coordination norms could have a similar effect on team coordination and subsequently team performance. However, this question needs to be explored explicitly.

Given the lack of research on cultural differences in coordination norms and the effect that these norms would have on regulating teamwork in a distributed context, the current dissertation will contribute to existing literature by establishing the nature of cultural coordination norms and the mechanisms through which they affect coordination and communication. Furthermore, it will be assessed how these cultural coordination norms affect teamwork in teams that work across distances.

Collaboration. Previous research has proposed that collaboration is both a structure and a process (Keyton et al., 2008). Structural aspects of collaboration include organizational interdependence, commitment, or resource exchange. Procedural aspects are foremost grounded in communication (Keyton et al., 2008). Keyton et al. showed that, in fact, communication is the core of collaboration.

Previous research by Bettenhausen and Murninghan (1991) found that, depending on their previous experiences, teams create norms of cooperation or competition that influence the team members' interactions and their willingness to collaborate with other teams. Ehrhardt and Naumann (2004) argued that norms for organizational citizenship behavior influence helping behaviors in organizations. Similarly, research by Chatman & Flynn (2001) in diverse teams showed that group norms that foster cooperation between team members mediated the relationship between demographic diversity and work processes and outcomes such as satisfaction, team effectiveness and efficiency, and individual performance. These norms influenced coordination behaviors as teams with cooperative norms scheduled meetings earlier in their group history. Furthermore, more

interaction occurred in groups with an emphasis on norms symbolizing interdependence rather than independence (Chatman, Polzer, Barsade, & Neale, 1998).

Observing the storming and norming processes in culturally diverse teams, Watson, Kumar, and Michaelsen (1993) suggested that diverse teams needed more time than culturally homogenous teams at the beginning of their collaboration to negotiate how they want to work together. So, in the first nine weeks of their collaboration, diverse teams performed weaker than homogenous teams. However, after week thirteen, diverse teams actually outperformed homogenous teams. Similar results were also found by Watson, Johnson, and Zgourides (2002) for learning teams. Watson, Johnson, Kumar, and Critelli (1998) observed that diverse teams were more individually-oriented rather than team-oriented in the beginning of the project, while homogenous teams were more team-oriented. Over time, diverse teams became more team-oriented while maintaining their individual orientation, which helped them to perform at the same level as the homogenous team at the end of the collaboration. In addition, the diverse teams were better able to harness their diversity and use it to their advantage.

However, none of the cited research actually assesses the factors of cultural diversity that make collaboration difficult. Gibson and Zellmer-Bruhn (2002) suggested that different cultures operate under different models of teamwork and thus, have different expectations about collaboration. For example, while American teams are more closely related to sports teams, Asian countries often value a community team, and Latin American cultures a family or military team. It can be argued that different norms for

communication and coordination that affect collaboration apply in each one of these team cultures.

Furthermore, as was summarized above, collaboration across geographical distance is difficult due to a variety of challenges such as challenges related to technology-mediated communication as well as challenges related to differences in time zone and context (e.g., Driskell, Radtke, & Salas, 2003; Olson & Olson, 2002). It has to be determined how cultural communication and coordination norms related to different forms of collaboration influence team member behaviors and team processes in internationally distributed teams and how challenges of geographic dispersion might undermine cooperation. The current dissertation will examine these dynamics.

Using Team Norms to Manage Challenges of IDTs

To deal with communication and coordination challenges, IDT researchers often recommend an initial face-to-face meeting among all team members to build relationships, trust, and team norms for collaboration (e.g., Armstrong & Cole, 1995; Hackman & Morris, 1975; Zaccaro, Ardison, & Orvis, 2004). While some researchers suggest a somewhat informal meeting to get to know each other and to exchange personal information, other researchers suggest that specific tasks be assigned so that the team members can test their collaboration. For example, Hackman and Morris (1975) suggest that the initial task should be similar to the actual project that team members will be working on. This approach can help to develop a routine for collaboration before the actual start of the project. This cuts down on project losses due to miscommunication and a lack of coordination. Furthermore, the team members can build an understanding of

each other's roles and can build cohesion and commitment to the team's task.

These recommendations are based on traditional models of teamwork, in which teams negotiate their collaboration early on and agree on rules to minimize conflict. One of the most prominent of these models is Tuckman's (1965) model, which distinguished between four phases of teamwork: forming, storming, norming, and performing. Both Tuckman (1965) and later Gersick (1989) found that high performing teams often differed from lower performing teams in the fact that they had experienced more process conflict in the beginning of their collaboration (i.e., storming) during which the team members discussed how the task was to be accomplished and how team members were supposed to work together (i.e., norming). Similarly, research by Bettenhausen and Murninghan (1985) showed that if teams cannot overcome the storming phase, it is likely that negative behavior patterns among team members are going to continue.

In culturally diverse teams, Watson et al. (1993) found similar patterns. Watson et al. observed that when comparing project work of culturally homogenous teams and culturally diverse teams over the course of fifteen weeks, homogenous teams outperformed the diverse teams for up to nine weeks into the project. In the beginning of their collaboration, culturally diverse teams spent a lot of time negotiating what was important to them and how to work together. In week nine then, diverse teams performed as well as homogenous teams. At the end of the project, diverse teams actually outperformed homogenous teams on several aspects of the problem-solving task. Watson et al. found that diverse teams can in fact overcome their challenges over time. In accordance with these findings, the authors pose the question whether engaging team

members in activities that get them to focus on their own group processes and performance can help diverse teams overcome these challenges more quickly. In terms of Tuckman's (1965) model of team performance, research should ask the question how diverse teams can master the "storming" and "norming" phases more quickly to facilitate performance.

Going one step further than the cited research, I propose that despite the importance of task performance for collaboration success, culturally based norms often receive insufficient attention in team development. In addition to initiating work on project-related tasks or socializing, it is of utmost importance for culturally diverse, distributed teams to engage in preparatory activities that help them explore cultural differences and understand their possible meanings during their future collaboration. Activities that highlight different frames of reference, different communication and coordination norms, different interpretations of English words (given that English is the common business language), and different organizational procedures create a deeper understanding of remote team members' ways of communicating and working. When multicultural teams are internationally distributed, these activities become even more useful for improving competence to discover, interpret, and communicate while working on joint projects. Only by developing an understanding of each other's cultural preferences can it become possible to generate common norms for the multicultural team that will guide the collaboration.

As was described above, the main challenges for internationally distributed teams lie in lack of mutual knowledge and shared context, lack of personal and cultural

knowledge about each other, and lack of effective, shared communication and coordination behaviors. It is likely that teams will first and foremost create norms to help manage these challenges. The current dissertation strives to identify the types of team norms internationally distributed teams create and to examine how they subsequently affect team processes and outcomes such as performance, satisfaction, and intercultural learning.

A Model for Teamwork in IDTs

In the previous sections, I described the potential hindering influences of cultural norms and geographic dispersion on team functioning in internationally distributed teams. Taken together with our knowledge about the influence of communication and coordination norms in traditional teams, the last part of this dissertation suggests a model of the effect of (cultural) communication and coordination norms on teamwork in internationally distributed teams. The suggested model can be seen in Figure 1.

As has been laid out in the previous sections, I propose that cultural coordination and communication norms affect team processes in internationally distributed teams which in turn affect the norm creation and enforcement process of common team norms. The teamwork framework used here is that of an Input-Process-Emergent State-Process-Output model (Marks et al., 2001). Differences in cultural norms as well as geographic distribution are seen as input factors of or antecedents for team processes such as conflict management or decision making that were described above. Cultural norms shape the way we encode, interpret, understand, and react to information and interaction with others (Gibson, 1997). Thus, they affect subsequent team processes. Geographic

distribution is a characteristic of the context in which internationally distributed teams work. As proposed earlier, both factors interact in affecting team processes.

Based on the team's experience with the team processes, team norms will emerge or be created explicitly. As was described earlier, team norms are emergent states or outcomes of team processes (Marks et al., 2001). Emergent states are relatively stable, but they can change over time or due to events in the team's history. I propose that the way team norms are created is influenced by the context of geographical distribution (see Figure 2). As was summarized above, geographical distance and technology-mediated communication pose challenges to the norm creation and enforcement process such as the delayed detection of communication and coordination issues (Mark, 2002), the fact that individual team members are more likely to be blamed for communication and coordination failures than technology or other external factors (Cramton, 2001, 2002; Cramton et al., 2007), and the tendency to underestimate cultural differences due to the lack of context, knowledge, and familiarity with the other culture (Berry et al. 2009; Hinds & Bailey, 2003). These factors will even enhance the challenging aspects of cultural differences as the likelihood of conflict increases, which is hard to manage in a distributed environment (e.g., Hinds & Bailey, 2003, Mortensen & Hinds, 2001). Despite these challenges, it is expected that multicultural, distributed teams are able to generate team norms that will help them manage the challenges of cultural diversity and geographic dispersion (Graham, 2003; Postmes et al., 2000; Watson et al., 1993).

In turn, team norms will influence team processes which lead to team outcomes. The common team norms will partially mediate the relationship between cultural norms

and team outcomes such that teams will be able to manage some, but not all, of the challenges posed by cultural differences between team members. Similar mediation effects have been found in Chatman & Flynn's (2001) study, in which cooperation norms mediated the relationship between diversity (sexual, racial, and citizenship) and group processes and outcomes. It is expected that a direct link between cultural norms and group processes remains as not all cultural communication and coordination patterns can be managed with group norms. Furthermore, given that cultural norms are resistant to change (e.g., Hofstede, 1981; Schwartz, 1999) and belong to our cognitive and affective hardwiring, it is likely that cultural norms supersede common team norms every once in a while. Despite the fact that conforming to norms usually elicits positive emotional responses in group members (e.g., Christensen, Rothgerber, & Wood, 2004) because group members can identify and share values with the group (e.g., Tajfel & Turner, 1979), in the case of cultural norms, the team members actually have to neglect part of their own identity by adapting their cultural norms to other team members' preferences. Thus, it is likely that there will be resistance to completely subordinate one's own cultural norms and preferences at all times.

Again, geographic distribution will affect the way team norms influence team processes. Arguing along the same lines as before, geographic distribution will likely hinder effective norm enforcement as non-normative behaviors are not readily recognized and corrected. Thus, their effect on team processes is limited. As previous research showed, for norms to take effect it is necessary that they are salient (e.g., Costarelli, 2005; Horowitz, 1971; Reno et al., 1993), which also means that they need to be enforced

when the boundaries of tolerable behavior are crossed. At the same time, if norms are clear, then they can work as substitutes for leadership, which is often also remote in internationally distributed teams, to manage the challenges to the team processes - outcome link (Howell et al., 1997).

In a recent dissertation, Köppel (2007) hypothesized and built a multicultural I-P-O (MIPO) model to map the effects of culture and geographic dispersion on teamwork. The current model is different from Köppel's multicultural Input-Process-Output (MIPO) model in several aspects. First, the current model, which is based on an I-P-ES-P-O model, takes into account the dynamic nature and complexity of team processes (Ilgen et al., 2005; Marks et al., 2001). As was described above, this kind of model takes temporal influence factors on teamwork into account and integrates the fact that resultants of team processes often serve as new input for the next I-P-O cycle.

In this, the I-P-ES-P-O model distinguishes between team processes and emergent states. The current model suggests that norms are both an input factor (i.e., cultural norms) as well as an emergent state (i.e., team norms) that affect subsequent team processes. Köppel does not examine the role that cultural norms play in team interactions. In her model, team norms are defined and included as team processes. Furthermore, she does not model how team norms might affect team processes such as conflict management or affect management. These are important aspects of the current model to help understand the processes through which cultural differences affect teamwork in internationally distributed teams.

The Current Study

The main contribution of this dissertation is to challenge prevailing assumptions and perceptions with regard to the current knowledge and understanding of cultural differences and to raise questions about the way culture and geographic distance affect teamwork. In this sense, this dissertation is different from most dissertations which use quantitative methodology to test hypotheses and produce findings to confirm theories. The current dissertation tries to gain a rich and complex understanding of cultural differences by focusing on the *meaning* team members place on their own behaviors and on the behaviors they observe in their colleagues. The influence that these cultural interpretations of team communication and coordination behaviors have on team processes will then be integrated into a dynamic model of teamwork in internationally distributed teams. Thus, the main purpose is theory building, rather than theory testing.

In order to develop a richer, more complex, and thus, more accurate, understanding of how cultural differences affect individual behaviors, researchers have suggested that we need to move away from using the rather coarse descriptors of cultural differences developed at the national level (e.g., Hofstede, 2001; Oyserman et al., 2002; Triandis, 2004). With this in mind, the current dissertation examines the content and meaning of communication and coordination norms in three different cultures to describe cultural differences at the individual level and to gain a better understanding of the role these norms play in internationally distributed teamwork.

Similarly, research on international teamwork does not adequately address the complexity of issues that affect teamwork in culturally diverse teams, and they do not specify the factors that define those differences (e.g., Earley & Gibson, 2002).

Furthermore, in internationally distributed teams research, questions remain regarding which processes actually lead to *successful* teamwork behaviors among team members (Montoya-Weiss et al., 2001). The current dissertation strives to fill these gaps in the literature by building a dynamic model of internationally distributed teamwork that integrates both the complexity of cultural differences (as described above) as well as the unique context of geographic distribution and that assesses if and how team members create team norms that help them overcome these challenges.

In order to accomplish these goals, this dissertation will use a qualitative approach, more specifically an ethnographic data collection approach. Qualitative methods are well suited for the exploration of cultural differences and team member interaction. As Szabo (2007) summarized, "qualitative methodology is commonly known as *the* method for studying *culture* […]." Miles and Huberman (1994, p.10) state that qualitative methods put an "emphasis on people's lived experience". Van Maanen (1983, p.9) adds that qualitative methods help to understand the "meaning, not the frequency, of certain more or less naturally occurring phenomena in the social world." But even more importantly for the current dissertation, "qualitative methods can be used to obtain the intricate details about phenomena such as feelings, thought processes and emotions that are difficult to extract or learn about through more conventional research methods." (Strauss & Corbin, 1998, p.11).

More specifically, ethnography is defined as

> […] the study of people in naturally occurring settings or 'filed' by methods of data collection which capture their social meanings and ordinary activities,

> involving the researcher participating directly in the setting, if not also the activities, in order to collect data in a systematic manner. (Brewer, 2000, p.6)

Delamont (2004) stated that the term ethnography is often used interchangeably with participant observation and fieldwork as all of these describe the process of observing people and talking to them in an effort to understand their world.

Observation has several purposes and advantages over the use of quantitative methodology (Bryman, 1988). First, observational techniques allow the researcher to 'see through the eyes' of the observed individual. In the process, the researcher discovers and understands events, actions, norms, and values from the perspective of the individual. Second, observations allow for descriptions of 'mundane detail', which are important to understand underlying factors in the context. Third, observations take the context in which the data was collected into account. Fourth, observational research conceptualizes and captures social life as a process. Fifth, an observational design allows for greater flexibility during data collection; thus, allowing the approach to be modified if needed or allowing the research focus to change to discover unexpected issues. Lastly, observational techniques reduce the risk that preconceived theories and concepts bias data collection and interpretation and make the discovery of unexpected relationships possible. Furthermore, given these aims of observational research, Currall, Hammer, Baggett, and Doniger (1999) find this approach particularly useful for the investigation of group processes.

A good example for the value of the ethnographic approach for distributed teamwork is Metiu's (2006) study of status dynamics in distributed groups. According to

Metiu, the effect of status differentials on group dynamics has mainly been explored in sociology and has not yet been applied in a distributed context. To research these dynamics in distributed teams, she used an ethnographic approach consisting of non-participant observation, interviews, and document analysis. This approach enabled her to uncover and capture the complex ways in which status influenced group processes. She was also able to take into account the larger context of competition between different software development centers.

When analyzing data from ethnographic studies, grounded theory is one of the most frequently used data analysis techniques (Silverman, 2006). As Gephart (2004, p.459) defines,

> [g]rounded theorizing (Glaser & Strauss, 1967) is the process of iteratively and inductively constructing theory from observations using a process of theoretical sampling in which emergent insights direct selection and inclusion of the "next" informant or slice of data. Grounded theory involves constant comparative analysis whereby groups as compared on the basis of theoretical similarities and differences.

As a data-analysis technique, grounded theory provides a structured procedure guiding the researcher through coding and developing more abstract categories. This structured approach ensures validity and increases comparability of findings across settings and studies (Szabo, 2007). In the following, I will describe in more detail the specific utility of ethnography and grounded theory for examining the questions of the current dissertation while taking into consideration the concerns raised in the paragraphs

above.

Nuances of Cultural Differences

As mentioned above, the current dissertation contributes to existing cross-cultural research by examining nuances of cultural differences, i.e., cultural norms, rather than broad cultural differences such as individualism vs. collectivism or task-orientation vs. relationship orientation. Although a lot of research exists on cultural dimensions on the societal level (e.g., Hofstede, 1980; Trompenaar, 1994) research on nuances of culture at the individual level is rare (Oyserman et al., 2002; Triandis, 2004). Hofstede's dimensions and similar cultural dimensional systems have been widely used to estimate cultural differences at the individual level (Oyserman et al., 2002), despite Hofstede's (1980) own cautioning that doing so might not be justified as his country-level analyses were never intended to explain behavior at the individual level. Furthermore, he believes that his indicators for culture underlie the dynamic processes of cultural development, in which cultural values are constantly redefined and shaped to fit the current historical and economic context.

In addition to these concerns, dimensional systems only support dichotomous culture comparisons and thus, seem rather crude. The information provided is whether a country has a higher or lower value on a given dimension compared to another country. What a specific point difference between scores on the scale means in terms of differences in specific, individual behaviors, is unclear. It is also unclear what point difference determines a significant difference between two countries. The authors of the GLOBE study on global leadership (House, Hanges, Javidan, Dorfman, & Gupta, 2004)

have tried to remedy the latter criticism and presented country scores in bands. Countries within a band did not receive significantly different scores on the dimension in question, while countries in different bands did. Nevertheless, the authors acknowledge that even among countries within a band, there can be vast differences in the meaning of a given cultural value and simultaneously in the behaviors displayed by individuals from these countries. In a recent, second book (Chhokar, Brodbeck, & House, 2007), the authors used qualitative analyses to obtain more accurate, in-depth information about the specific cultural values, norms, and meaning within select countries.

Along the same lines, several researchers have voted against the use of attitudinal survey measures, which are predominantly used in current cross-cultural research, for assessing culture at the individual level (e.g., Kitayama, 2002; Oyserman et al., 2002). In this measurement approach, researchers ask participants to rate their agreement with a list of behaviors, attitudes, or value statements. While this approach is appropriate for obtaining self-report data related to thoughts, feelings, and beliefs, its use for learning about and understanding cross-cultural differences is questionable. Oyserman et al. (2002) argue that this form of direct assessment assumes that respondents have declarative knowledge about their culture and are aware how their cultural background affects their behaviors.

Research has shown that this is usually not the case (e.g., Berry et al., 2009; Osland & Bird, 2006). Individuals are often unaware of the cultural norms and expectations that drive their behavior as they are a taken-for granted part of everyday life (Berry et al., 2009; Oyserman et al., 2002). This is especially true for individuals who

have never left their own cultural context (Bennett, 1993). Kitayama (2002) adds that the underlying issue here is that variation of cultural facets are small within a given culture. Thus, making assessments of features that differentiate their own culture from other cultures is hard. Furthermore, the fact that social aspects of the culture are widely shared, engrained, and routinized makes it very unlikely that individuals within a culture have explicitly thought about them.

Second, attitudinal measures in general suffer from several shortcomings which might be even more pronounced when used for cross-cultural research. As Oyserman et al. (2002) argue, asking all participants the same questions implies that the items and scales of the measure have universal meaning across participants. This is unlikely even for individuals from the same cultural background, but it is even more unlikely in a cross-cultural context. This problem goes beyond ensuring appropriate translation and back-translation of items (e.g., Peng, Peterson, & Shyi; 1999; Reiche & Harzing, 2007). As reviewed in previous parts of this dissertation, psychological concepts (like trust, honesty, loyalty, etc.) are qualitatively different across cultures, can have different antecedents and outcomes, and might be communicated differently (e.g., Fischlmayr et al., 2007; Yamagishi & Yamagishi, 1994).This also implies that the questions needed to tap into the underlying dimensions of cultural differences might be different (Oyserman et al., 2002). These criticisms put the use of attitudinal surveys for cross-cultural research into question.

As was outlined above, ethnography is better able than quantitative methods to capture cultural differences in meaning, behaviors, norms, and values. The ethnographer

first observes patterns of behavior and then talks to the observed individuals to assess their thoughts and interpretations of the given situation. The approach is flexible and open enough to adapt to the observed individual. Furthermore, ethnography takes the context in which a given behavior was displayed into consideration.

Dynamic Nature of Norms and Team Processes

As several researchers (e.g., Burgoon & Ebesu Hubbard, 2005; Philipsen, 1997; Philipsen, Coutu, & Covarrubias, 2005; Schachter, 1951) describe, norm creation and enforcement are based on constant interaction, communication, and negotiation between conversation partners. In addition, the team processes that norms influence are themselves dynamic in nature (e.g., Ilgen et al., 2005; Jehn & Mannix, 2001; Marks et al., 2001).

Apart from the conclusion that cultural variables should not, or cannot, be measured with survey techniques, this dynamic nature of norm creation and enforcement requires a longitudinal, process-oriented, qualitative design (Bachiochi & Weiner, 2004; Locke, 2002) that can capture the process of norm creation, the constant re-negotiations and adaptations of the existing norms, as well as the sanctioning for norm deviations and the effect of norms of team processes. Furthermore, according to Feldman (1984), some norms are created as a reaction to a significant event in the group's history. Failure to observe and capture *all* behaviors and events in a team's history increases the likelihood of missing significant events and interactions in the team interactions that might be able to explain the meaning and interpretation of a created team norm and its effect on subsequent team processes.

As was highlighted above, ethnography is an appropriate methodology to capture this dynamic process as well as the team and event history leading up to norm creation (Currall et al., 1999; Silverman, 2006). Furthermore, ethnographic research emphasizes an ongoing discovery process, much similar to the ongoing cultural discovery process in intercultural learning and collaboration.

Model Development

To develop a dynamic model of the influence of cultural norms and geographic distribution in internationally distributed teams, this dissertation will take a grounded theory approach to data analysis. Grounded theory is especially useful for model development and theory building as it helps the researcher to abstract from the data (Goulding, 2002).While grounded theory emphasizes the importance of unbiased exploration in that the researcher should not have preconceived theories of the kinds of relationships to be found in the data (Locke, 2001; Silverman, 2002; Szabo, 2007), the researcher may develop appropriate research questions based on previous research and his/her disciplinary background (Goulding, 2000; Locke, 2001) as was done in the current dissertation.

Several researchers have highlighted the importance of 'triangulation' of data sources as well as of data analysis approaches (e.g., Currall et al., 1999; Locke, 2001). Triangulation helps to assess whether data from different sources, obtained and analyzed with different approaches generally yield the same findings and lead to the same conclusions. The current dissertation uses triangulation of data, measurement approaches, and analysis techniques. As will be described in more detail below, the current

dissertation uses participant observation, reflective essays, document analysis, and surveys. Data analysis includes grounded theory for the qualitative data and quantitative methodology for analyzing the surveys.

Method

The Research Setting

The current dissertation will use data collected during two international classroom collaborations between undergraduate students in the US and undergraduate students in Finland and Germany. The author organized an 11-week international collaboration between a class on 'Cross-Cultural and Global Management' at George Mason University and a similar class on 'American Culture' in a university in Finland during the spring semester of 2007. During the fall semester of 2007, the author then organized a second, 9-week international collaboration between another class on 'Cross-Cultural and Global Management' at GMU and a similar class on 'American/German cultural differences' in a university in Germany.

Student Teams

In each collaboration, student teams were formed that contained a number of American and a number of Finnish students or German students. For the American/Finnish collaboration seven teams were built with 3-4 American and 3-4 Finnish students in each. For the American/German collaboration six teams were built with 4-5 American and 2-3 German students in each. Students in the Finnish class were almost exclusively of Finnish cultural background. Similarly, students in the German class were almost exclusively of German cultural background except for two students

who have an Asian cultural background.

Students in the American classes were of very diverse cultural background as is typical at GMU. In the American/Finnish collaboration, about one third of them had an exclusively American cultural background meaning that their family had lived in the USA for several generations. The other two thirds of the class were first or second generation Americans. Among these were students of Asian, Latin American, Middle Eastern, Eastern European, Northern African, Indian, Australian, and European (but not Finnish) cultural background. In the American/German collaboration, about half had an exclusively American cultural background meaning that their family had lived in the USA for several generations. The other half of the class were first or second generation Americans. Among these were students of Asian, Latin American, Middle Eastern, European (but not German), and Indian cultural background. The cultural diversity in the American classes is reflective of the diversity in the US-American population.

Cultural background

Teams with American/Finnish and American/German members are interesting in the context of the current research question. Being that all three countries are considered Western cultures and are relatively close to each other on dimensional systems of culture such as Hofstede's (1991) or Trompenaar's (1994), significant cultural differences between them are often unexpected for team members who work together for the first time (e.g., Szabo, 2007; Thiele, 2001). Nevertheless, as has been explored in previous sections, Finnish/American and German/American teams often experience very strong differences in their communication and coordination behaviors that can make cross-

cultural understanding and subsequently international collaboration difficult (e.g., Berry et al., 2009; Berry, 2002; Thiele, 2001).

For example, Finns and Germans highly value privacy. For Germans and Finns this often means that personal information is not exchanged until one has already built a trusting relationship with someone (e.g., Gannon, 2004). Americans exchange personal information often in the beginning of a relationship to become acquainted with a person quickly and to be able to judge quickly if they can effectively work with that person (Gannon, 2004; Lewis, 1996). This can create problems in an interpersonal exchange. Exchanging personal information too early can mean that Germans and Finns pull out of the relationship before it has even really started. Not giving enough personal information can mean that the Americans feel that their German or Finnish counterpart is not committed to the relationship and again pulls out of it before it has even started. Being that these communication and coordination behaviors are nuances of cultural differences and cannot be captured with the popular societal-level measures of culture, these teams provide an excellent context in which to study differences in cultural communication and coordination norms on the individual level.

Collaboration Design

The purpose of the collaborations was to facilitate cross-cultural learning and understanding in each instructor's respective class. The pedagogical approach used for the collaborations is based on more than a decade of (1) pedagogical exchanges between Finnish and American students (Berry, Carbaugh, & Nurmikari-Berry, 2004; Berry et al., 2006; Carbaugh & Berry, 2001; Carbaugh et al., 2006) and (2) turning local and

exchange students into learner-teachers of each other in face-to-face courses in Finland and Austria (Auer-Rizzi & Berry, 2000; Berry, 2002; Berry & Inreiter-Moser, 2002; Reber and Berry, 1999). The basis for most of the exercises was taken from these courses. In addition, a few exercises were specifically developed by the course instructors for the current exchange and integrated into questionnaires related to internationally distributed teams and the challenges they face as mentioned above.

During the collaboration, student teams engaged in an active exchange about cultural differences with their international team members. In their respective classes, students participated in in-class exercises designed to help them become aware of their own cultural norms and to have a common ground for discussions about differences in cultural norms. Examples of these exercises can be seen in Appendix A. In this pedagogical approach, students used each other as experts on their respective culture and explained cultural ways to their student colleagues as well as to their teachers. The teachers, on the other hand, monitored the students' learning progress and coached the students from the sidelines. Being able to show socially acceptable behavior in one's own culture does not necessarily mean that one can explain the underlying norms for the given behavior to a cultural stranger. Therefore, discovery of self as a person, a professional and a cultural being requires interaction with strangers and side-line support from the observant-participant ethnographic monitor.

Students were asked to send a summary of their discoveries via email to their international colleagues after each class session. In addition, students were required to ask questions related to the summaries their international colleagues had sent and to

engage in a discussion about cultural differences and their implications. In the next class session, the teachers would then bring example emails from the online discussion to class to explore and interpret cultural differences that had been mentioned. Students were also encouraged to use voice over IP (VoIP) and chat to talk to their international colleagues during the week.

Given that the students' task during this collaboration was to learn about their own and their team member's culture, the current teamwork context is different from the context internationally distributed teams face in organizations. However, in all other aspects the teams are similar to organizational teams with regard to such things as the structure and interdependence of work, the available communication technologies, and consequences for lack of performance as well as rewards for good performance. Furthermore, one of the purposes of this data collection was to examine whether the explicit exchange and analysis of information about cultural differences would help the team members manage the cultural challenges they were experiencing. Organizational teams very rarely spend time on this (Reber & Berry, 1999), which is arguably one of the reasons for the many challenges they face. Thus, the given team task was a necessity for the current data collection.

(Distributed) Context of the Study

Challenges related to time zone differences in the American/Finnish collaboration

The time difference between the east coast of the USA and Finland is seven hours. The class at the American university and the class at the Finnish university were only twelve hours apart. This meant that students on the American side (who had class

around 4 pm on Tuesday) had to send email to their Finnish colleagues (who had class around 2 pm on Wednesday) right after they got out of class, so that the Finns were able to read them before class and so that the Finnish course instructor would have time to make printouts of example emails for discussion. That left American students only with a couple of hours to email their insights from the course to their Finnish colleagues. Most of them got out of the class at 7:00 pm, after which they had to get home, have dinner and write email. Some students had another class after our class and did not get home before 11 pm at night.

Also, if there were any necessary last-minute adaptations of the in-class exercises, they had to be done in this 12-hour window. For the instructors, this often meant staying up very late (until 1 or 2 am on the Finnish side) or getting up very early (around 5 am on the American side) to be able to talk to each other via VoIP.

Challenges related to time zone differences in the American/German collaboration

The time difference between the east coast of the USA and Germany is six hours. The class at GMU was held on Thursday nights, while the class at the German university was held on Monday afternoons. Different from the American/Finnish context, there was sufficient time between the two classes for the students to comfortably send email and for the instructors to coordinate their class content.

Challenges related to different contexts

In both classes, the American students mostly worked part-time or full-time during the semester. The Finnish and German students were mostly full-time students with a larger course load. Due to work/class schedules and the 7-hour/6-hour time

difference, students often found it difficult to schedule a time for real-time VoIP conversations or chat. Also, depending on holidays, exam breaks, and other events, emails were sometimes sent infrequently and inconsistently.

Furthermore, some students did not have a computer at home and could not come to campus during the times their international colleagues were online. Some students also did not have headsets or microphones to use VoIP. All of these factors made 'direct' contact between students (i.e. communicating with each other at the same time via VoIP or chat) very difficult, which deprived some students of this part of the intercultural experience. Challenges related to 'scheduling conflicts' and 'technology issues' are also common in internationally distributed teams in organizations (e.g., Lynch, Heinze, & Scott, 2008).

There were also differences in the academic context in which the two classes were held. The course in the US had very bureaucratic guidelines that affected the pace and quality of the collaboration: for example, students were allowed to register for the course up to three weeks into the semester and attendance could not be required. This is standard procedure at GMU and typical for US American universities. Those who added the class late had missed a substantial amount of the ground-laying conversations about cultural values, cross-cultural stereotypes, ways of living, and other things.

On the Finnish side the course instructor screened all students concerning their commitment to the online collaboration before the course started. Only students who committed to put in the necessary effort for the collaboration were allowed to enroll in the class. This was not possible on the American side as the instructor had almost no

discretion about who enrolled in the class and who didn't. Although the American instructor sent the syllabus out before the class started and emphasized the amount of out-of-class work that would be expected from the students, there was no control over student enrollment and subsequently student commitment. Furthermore, at any point in time, the Finnish instructor was able to exclude students from class if they failed to participate in the collaboration. Again, this was not possible on the American side. On the German side, the course instructor also had no discretion about who enrolled and who dropped the class.

Levels of Analysis

The current dissertation incorporates concepts from three different levels of analysis: individual-level communication and coordination behavior, team-level communication, coordination, and team processes, and country-level cultural values and norms. Instead of focusing solely on each team as a unit of analysis, it is important to also analyze communication and coordination patterns across individuals from the same culture/context to assess cultural level influence factors. Furthermore, it is important to analyze individual behavior over time to examine how particular behavior patterns are influenced by individual differences. Examining behavior patterns at different levels of analysis will help to distinguish influence factors of these behavior patterns as individual, group-based, or cultural.

Data Sources

Based on recommendations for qualitative data analysis (e.g., Locke and Golden-Bittle, 2002; Miles & Huberman, 1984) and examples of research on group processes

based on qualitative techniques (Curall et al., 1999), the current dissertation utilizes participant observation as a longitudinal, process-oriented, qualitative approach to assess the influence of cultural communication and coordination norms and team norms on team processes and outcomes in an internationally distributed team setting. Data from the American/Finnish collaboration will serve to assess, adapt, and extend the proposed model for cultural influences on teamwork in internationally distributed teams. Data from the American/German collaboration will serve to reassess the adapted model.

Several sources of data are available in these archival datasets. Observations included weekly email exchanges and chat between the team members outside of class as well as in-class observations by each instructor. 679 pieces of email are available from the American/Finnish collaboration, 824 pieces of email from the American/German collaboration. The number of emails by team ranged from 59 to 151 in the American/Finnish collaboration and from 92 to 191 in the American/German collaboration. For their chats, the team members used private chat services that were not part of the online web tool used for the class (i.e., Webct 41). The students were asked to post and turn in copies of the texts of their chats. However, in some cases, students failed to provide their chat information; thus, these chat events were not available for data analysis.

In addition, students wrote individual 15-page reflective essay on their experiences during the collaboration as part of their class assignments at the end of the semester. For the essay, the students were asked to reflect on their cultural learning from the beginning of the collaboration to the end, using email and chat records as a resource.

37 essays are available from the American/Finnish collaboration. 37 essays are available from the German/American collaboration.

Furthermore, quantitative and qualitative data on team processes and team outcomes using survey methodology were collected during the collaboration. Using insights from the email and chat exchanges as a basis, we developed open-ended questions targeted at the challenges due to cultural differences and geographic dispersion that the students were experiencing. Furthermore, we included established quantitative measures for several team outcome variables that became observable during the collaboration, i.e., team satisfaction, team efficacy, commitment, cohesion, and team performance (see measures in the Appendix B). These measures were collected using an online survey which students completed as a homework assignment between two classes. We also collected all organizational documents such as syllabi, handouts, exercises, and all preliminary versions of exercises and handouts to track the development of each document given to the students.

Data Collection: Ethnographic approach – Participant Observation

The instructors were participant observers in the research setting. The collaboration started with relatively open-ended exercises (i.e., The First Five Things That Come to Mind, see Appendix A), which allowed students to think about and discuss their concepts of culture on a very superficial, general level. Following each week's class session, the instructors read and analyzed all email and chat conversations to adapt the following week's exercise accordingly to ensure an optimal learning process for the students. Exercises in the following week were designed to reassess and reanalyze

important discoveries made in the previous week as well as to extend this knowledge by providing new challenges to the students' cultural assumptions (see Appendix A for examples).

This 'controllable confrontation' approach (Berry, 2009) creates confusion and maybe even frustration about the lack of understanding. Based on this dissonance, students then engage in an exchange with other students from the target culture to actively seek out information about the things they do not understand. During the exchange, more exercises are given that target certain aspects of the two cultures that highlight the cultural differences between them. Using this approach enabled us to follow and observe students' cultural learning progress during each week. Furthermore, we were able to adapt the cultural discovery process to help students identify and explore crucial cultural discoveries.

The setting was ideal to explore the research question of this dissertation for several reasons: First, due to the opportunity to observe the teams from the beginning of the international team project until its conclusion we were able to collect longitudinal data capturing team dynamics over the entirety of the collaboration. Thus, the data enable us not only to look at the influence of the already existing cultural norms but also at the process of norm creation and enforcement within the teams that might help them overcome the challenges posed by their cultural differences.

Second, we were able to collect data from different sources and different modes of communication between the students. We were able to collect email communication between all team members, direct observations in the classroom, chat dialogues,

summaries from voice over IP conversations, term papers and exams, as well as questionnaires. Different sources of data are useful to see whether or not findings converge across different modes of observation (i.e., triangulation of method).

Third, being participant observers, we were able to react to especially interesting team dynamics by creating exercises and questionnaires that would tease out certain cultural differences. At several points in the collaboration we created questionnaires and online exercises that incorporated the students' newly acquired knowledge and applied it to new cultural questions. This allowed us to refer back to students' experiences and to test them in a new context.

The American/German collaboration essentially generated the same kind of data as the American/Finnish collaboration in a slightly different cultural and organizational context. Data from this collaboration will be used to reassess the conclusions drawn from the American/Finnish data and to cross-validate the theoretical model. Furthermore, it can be assessed which conclusions generalize across cultural and organizational contexts.

Role of the Researcher

A critical aspect of each qualitative study is the background of the researcher who conducts the study. In qualitative research, "the researcher is pre-eminently the research tool" (Goulding, 2002, p.18). Observer bias is a potential risk inherent in all qualitative work. Observations and conclusions from the data are influenced by the researcher's own background and experiences. At the same time, these experiences might particularly qualify the researcher to observe cultural interactions and interpret the cultural meaning of events. As Fine and Elsbach (1999) suggest, these experiences might provide "data

that are enriched in ways that quantitative data, including that collected through observational techniques, cannot be."

With regard to my personal background, I was born and raised in Germany. I have been living in the United States for the past seven years, and have gained extensive cross-cultural experiences through teaching and participation in several cross-cultural research projects.

Given my role as one of the teachers in each of the collaborations, I had substantial influence on the observed students. To minimize biasing influences, the collaboration was designed so that the teachers mainly took an observing and guiding role, rather than a teaching role. In their guiding role, the teachers tried to ask appropriate and challenging questions to encourage the students to more self-reflection and analysis. Although students were made aware that their interactions were to be used in this research study, the teachers paid close attention to keeping the pedagogical responsibility a priority and designed course content accordingly. In addition, given that the pedagogical approach is mainly driven by the student's own discovery process rather than a premeditated learning plan, the data are likely to closely reflect the genuine intercultural learning progress.

To ensure the validity of my observations during the data collection process, I took several steps. 1) After each class, emerging cultural themes were discussed with the other teachers in the collaboration. Both colleagues are experts in cross-cultural communication in their respective countries. Potential meanings of the discoveries were explored and challenged. 2) When discussing cultural discoveries, my collaboration

colleagues and I frequently went back to the published literature in our respective disciplines and countries to compare our observations to findings from other studies or to findings from previous collaborations conducted by Berry, the Finnish course instructor. 3) As part of the pedagogical approach, we brought cultural discoveries back to the students during each week to have them reflect on the insights and integrate these discoveries into a larger picture of cross-cultural differences. 4) Before the American/Finnish collaboration, I met with a representative of the Finnish Embassy who had been brought up by Finnish parents in the US. I interviewed him about Finnish/American cultural differences and about Finnish and American habits that made these differences especially salient. I used my notes from the interview extensively to think up discussion topics and exercises for the collaboration. 5) I presented examples from the observations at several international conferences, both in Europe and the US, to obtain feedback and discuss implications for interpretation of the data. The specific conferences were selected to discuss the observations with representatives from all the cited academic disciplines (i.e., intercultural communication, ethnography, psychology, organizational studies, interdisciplinary group research, and management).

To ensure the validity of my interpretation of the data, I will use three safeguards. 1) The data analysis will include the constant comparative method, in which each new piece of text is compared to previously analyzed text. 2) I will make extensive use of memoing to detect blind-spots in my coding and monitor my interpretations. 3) I will periodically discuss my interpretations and conclusions with my two collaboration partners in Finland and Germany.

Data Sorting, Data Analysis, and Theory Development

Data management and analysis procedures are summarized in Table 1.

Data Management

All available data will be imported into the NVivo 7 coding software, which will be used to assist data analysis. Data from different sources (e.g., emails, chat, reflective essays, etc.) will be sorted by team members within a given team to facilitate analyses of interpersonal interactions and team-by-team analysis.

Data Analysis

As mentioned previously, the available data will be analyzed using a grounded theory approach. Strauss and Corbin's (1994) recommendations for grounded theory development were followed with some adaptations. Szabo's (2007) extensive qualitative study on participative management across five European cultures served as an example for reasonable and feasible adaptations to the traditional approach. In the following, the data analysis approach is outlined. Within each step, Strauss and Corbin's (1994) recommendations are summarized and where appropriate, adaptations to the approach are explained.

Memos. Strauss and Corbin (1994) suggest the extensive use of memos during the data coding process. Memos help researchers to reflect on their thoughts and decisions in the coding phase and help to capture them for later reference (Locke, 2001). This step is important to ensure that the coding process can be retraced if needed.

Coding. Coding will be done in three, overlapping stages: 1) open coding, 2) axial coding, and 3) selective coding. According to Strauss and Corbin (1994), open coding

entails a detailed analysis of the text. While some researchers have used, line-by line coding, the current dissertation will follow Locke's (2002) guidelines which suggests breaking down the available text into discrete data fragments or "thought units". Fragments will be built by breaking down the text on a sentence-by-sentence basis.

Being that I expect the email conversations, chats, and written class assignments to be the richest source of data, I will focus my attention first on these documents. According to Strauss and Corbin (1994), *open coding* will initially result in descriptive codes (such as teamwork, conflict, or norms). During the *axial coding* phase, these descriptive codes are then aggregated to categories of codes (e.g., team processes or outcomes). Categories will be refined and linked, and first theoretical concepts might be generated. During the selective coding phase theoretical concepts are verified and finalized, and research propositions are specified. In the current dissertation, emerging theoretical concepts might be the meaning of specific cultural norms, the role of team processes, or the function of emerging team norms. These three phases of coding happen in parallel so that each stage can inform and influence the next stage and the coding process remains iterative (Strauss & Corbin, 1994).

Constant comparison. While proceeding through the data, I will use the constant comparative method, in which each piece of newly coded text is compared to previously coded text. This iterative process of coding, refining, and recoding helps to maintain the content validity of interpretations (Glaser & Strauss, 1967). In addition, I will specifically seek out negative examples to test alternative explanations and conclusions (i.e., negative case analysis). In negative case analysis, the researcher actively seeks examples that

deviate from the conceptual definitions or the proposed relationships (Glaser & Strauss, 1967; Van de Mheen, Coumans, Barendregt, & Van der Poel, 2006). After studying these examples, conceptual definitions and propositions can be adjusted until they cover all cases.

In the current dissertation, specific attention will be given to comparing data from members with different cultural background and to comparing teams across the two different collaborations. According to Szabo (2007), this comparison helps to detect country-specific patterns as well as differences in meaning.

In addition, code definitions and theoretical concepts will be discussed with my two collaboration colleagues. The goal is to attain "dialogical intersubjectivity" (Kvale, 1994, p. 152), which describes an approach to maintain reliability through discussion about complex phenomena. According to Ashforth, Kreiner, Clark, and Fugate (2007, p. 154), these discussions aide in "clarifying the boundaries and properties of the constructs and in generating new constructs (Miles & Huberman, 1994)". With their input, I will revise and refine the coding scheme. Furthermore, repeated consultation with academic literature or secondary data will be used to 'trigger further inquiry' and to help 'recognize concepts and relationships' in the data (Szabo, 2007, p. 102).

Relationships between concepts. After having arrived at a set of theoretical concepts, relationships between these concepts will be explored. The data will be analyzed for emerging patterns of interpersonal interactions. NVivo's semantic pattern analysis can support this process by analyzing codes and concepts with regard to their coupled appearance in the data. In addition, linkages between concepts will be analyzed

to determine which concepts are emerging as antecedents, processes, and outcomes. Furthermore, to better interpret team interaction and processes, I will track sequences of events and interactions between team members. This step will help to examine the process character of the suggested theoretical model as it will help to assess specific sources of confrontation and conflict between team members.

Given the focus on cultural differences, it is especially important to take cultural differences in meaning and interaction patterns into account. A preliminary theoretical model of teamwork in internationally distributed teams will be generated in this step. This empirically derived model will be compared to the suggested theoretical model and necessary adaptations to the suggested theoretical model will be made.

Theoretical saturation. As suggested by Strauss & Corbin (1994), theory building starts with the first piece of data collected. As observations are made, the researcher identifies potential underlying concepts. With these concepts in mind, the researcher continues to collect data to refine the concepts and to discover relationships between emerging concepts until a point of 'theoretical saturation' is reached at which no new insights emerge from the data.

In the dissertation, it was not possible to assess whether theoretical saturation was reached during the two data collections. As Eisenhardt (1989) comments, it is often the case that time or resource constraints limit the amount of data that can be collected. To determine theoretical saturation in this case, Szabo (2007) suggested using two a priori criteria which are adopted for the current dissertation: 1) The number of new codes per additional team analyzed is expected to decrease and eventually converge to zero after all

teams in a collaboration were analyzed. 2) At the end of data analysis, no major questions should remain regarding the concepts or relationships between them.

Integration. After having arrived at a preliminary model, the integration step will compare the findings that emerged from the qualitative data with existing literature. As Eisenhardt (1989) suggests, existing literature can question, challenge, or confirm findings from the qualitative analysis and can, thus, tighten the construct definitions. This step ensures internal validity and generalizability (Szabo, 2007).

Cross-validation. This empirically derived model will be tested by applying the extracted codes and theoretical concepts to the American/German data. This will test the transportability of the findings and the generalizability of the drawn conclusions. Again, I will do a negative case analysis by specifically seeking out negative examples to test alternative explanations and conclusions with this second data set.

Across collaboration analysis. To assess the generalizability and specificity of the generated model in even more depth, patterns that emerged from the Finnish/Americans dataset will be compared to patterns that emerged from the German/American dataset. The data will be analyzed with an eye on uniqueness and similarity of patterns across the two collaborations. It will be particularly interesting to evaluate whether Americans show different interaction patterns with Germans and Finns and how they do or do not adapt their behaviors to their communication partners. It will also be interesting to see how similar the two Northern European countries are in their behaviors as well as in the meanings attached to the behaviors.

Data example

To give a concrete example of the kind of data collected and the information that can be generated from it, excerpts from three emails will serve as an example. The following example contrasts different cultural meanings and interpretations of small talk given by the participants. Example codes given to the text are displayed. These are by no means final codes. They are just examples for possible codes.

American:

Thought Unit	**Text**	**Codes**
1	Americans are very uncomfortable with silence.	Silence, communication, discomfort
2	If two people are engaged in conversation that is followed by silence, more than likely one of the two people will start the conversation back up with stating something funny or obvious just to get rid of that silence.	Silence, communication, discomfort
3	You almost feel obligated to keep the conversation going.	Communication norm, obligation to talk
4	These small comments or "small talk" later leads to "big talk" or a more detailed topic.	Small talk, communication

Finn:

Thought Unit	Text	Codes
1	I think Finns would have a lot more small talk if we didn't think what the other thinks about us if we say something?	Small talk, apprehension, discomfort, appearance to others, communication
2	I personally like small talk but you never know what other people think if they are spoken to.	Small talk, interpretation by others, communication
3	That's why I prefer to keep it quiet.	personal norm, communication norm, quietude
4	Also other people expect that you will think before you speak.	Thinking before speaking, communication, communication norm
5	If a Finn says something stupid, other Finns will notice it and consider it as a bad thing.	Communication norm, appearance to others

German:

Thought Unit	Text	Codes

1	There is small talk in Germany as well.	Small talk, communication
2	But often I combine 'small talk' with a bad feeling.	Small talk, negative affect
3	A typical situation of small talk is for example, if you meet a former class mate you never talked to a lot.	Small talk, example
4	You know, you can't just pass him saying "hello", but actually there isn't really anything you would like to know.	Communication norm, don’t care
5	So it starts with 1) "Hi, how are you? Haven't seen you quite a long time!" (I actually don't mind), 2) "So what are you studying again?" (I actually don't care), 3) "And where are you up to now?" (I actually don't care).	Example, communication, don’t care (Memo: points to ‘insincerity’)

The example given here highlights the kind of information that will be obtained in the first step of coding, open coding. Later on, bigger concepts will emerge from the data and summarized into categories. Subsequent text examples will be analyzed with these codes in mind. The codes will be refined and tightened. It will be explored how insights from these comparisons lead to different interaction patterns, which subsequently affect team processes such as conflict and conflict management or trust.

For example, as indicated here, the last part of the German example seems to indicate that Germans perceive small talk to be insincere and that there is a negative feeling associated with insincerity. The Finnish example seems to indicate that Finns are also wary to use “small talk”, but because they are worried about their appearance to others when they say something stupid. On the other hand, the American example seems to indicate that Americans prefer “small talk” to silence and see it as the starting point for conversation about more important topics (i.e., “big talk”).

Let’s imagine that an American makes excessive use of “small talk” when meeting a German for the first time. The German might interpret the American’s behavior as quite insincere and nonchalant, while the American believes s/he is being very polite in entertaining the German. Not responding with the same ‘enthusiasm’ for “small talk” the American might in turn assume that the German is impolite and not interested in communicating. These different interpretations might lead to distrust among the German and the American.

Following the team members of the two collaborations through the weeks of communication, it will be assessed how these differences in communication norms affect their communication, interaction, and teamwork.

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REFERENCES

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