Under the surface and far apart: hidden discord in global virtual teams

David Drabble

Royal Holloway, University of London

Management PhD

Declaration of Authorship

I, David Drabble, hereby declare that this thesis and the work presented in it is entirely my own. Where I have consulted the work of others, this is always clearly stated.

Signed:

Date: 10/06/2022

Acknowledgements

This thesis is dedicated to my wife who inspired and supported me to start and complete this thesis.

Thanks to my supervisors, Professor Niki Panteli and Professor Gillian Symon, I couldn't have asked for a better supervision team.

Finally, I record my appreciation for my colleagues at the Tavistock Institute, Royal Holloway, my family, and my young son William, who will no doubt be pleased I now have more time to play with him.

Under the surface and far apart: Hidden discord in global virtual teams

David Drabble (Royal Holloway, University of London)

Abstract

With the development of advanced information communication technology, globally dispersed teams have become increasingly common, and research on such teams is likely to have increased importance following COVID-19. Despite the presence of numerous factors that make discord more likely in such teams, from language asymmetries and cultural differences to technological mediation and differing communication habits, no prior research has addressed misunderstandings, non-understandings, and hidden disagreements (which I label 'hidden discord') in global teams. This study used semi-structured interviews and documentary evidence including global team email interactions to investigate the question "*How does hidden discord impact global virtual teams?*" Using an abductive analytical approach, the research found that when remote, it is more difficult for team members to enter 'clarification cycles' where misunderstandings and hidden disagreements can be noticed, which leads to a variety of incidents that must be managed. This study identified and categorised incidents of hidden discord, presenting six sub-categories of hidden discord, including 'undiscussed disagreements' and 'repressed conflicts' which have not previously been identified in the GVT literature. The research found that the same types of discord can have widely varying outcomes depending on the pathways taken, with outcomes being affected by the team conditions, triggers and communications medium used when the discord was revealed. The detailed accounts of these incidents revealed that when the emotional impact of these incidents was not contained effectively, teams became less efficient and had less common ground, leading to splits in the teams, reducing trust, cohesion, and authority of existing leaders. The study also found several protective factors against hidden discord, including communication skill and previous collaborations, and possible interventions such as creating common vocabulary, toleration of difference, and frequent synchronous communication. Whilst this research shows the tendency for dispersed teams to avoid and repress when experiencing communication difficulties it also shows that an array of communication techniques and technologies can prevent, identify, and manage hidden discord, ensuring incidents are dealt with through compromise and sensemaking, and creating opportunities for global teams to improvise and resolve underlying difficulties.

Contents

Chapter 1 Introduction 10

Chapter 2 Literature review on Global Virtual Teams 19

What are virtual teams? 19

Global virtual teams 26

Chapter 3 Communications technology, language and hidden discord in global virtual teams 42

Computer-mediated communication 42

Language asymmetries in global virtual teams 47

Misunderstandings and disagreements in GVTs 57

Summary of GVT research gaps 73

Chapter 4 Methods and methodology 76

Philosophical preferences 76

Research design and methods 84

Description of global virtual teams 86

Chapter 5 Primary research findings: typology, conditions, effects, and management of hidden discord 105

Typology of critical incidents 105

Conditions that generate hidden discord 122

Impact of incidents on globally dispersed teams 140

Effects of hidden discord on teams 144

Managing hidden discord 151

Chapter 6 Analysis of critical incidents: case presentation 168

Introduction to Team A 168

Incident A(ii) 'Marketing report' 173

Incident A(iii) 'Research report' 185

Incident A(iv) 'Purpose of project' 197

Analysis of Team A incidents in aggregate 210

Chapter 7 Discussion 217

Answers to the research questions 217

Contribution of study 241

Chapter 8 Conclusion 250

Bibliography 258

Appendix 1 Supplementary analysis of misunderstandings and disagreements 291

Appendix 2 Data structure 313

Appendix 3 Table of critical incidents 338

Appendix 4 Details of interviewees from Teams A to Z 346

Appendix 5 Interview questions and reflection form 349

List of figures

Figure 1: Typology of virtual teams, adapted from Panteli (2004), shading indicates expected level of challenges 24

Figure 2 The process of understanding and misunderstanding (adapted from Pietikäinen, 2018) 61

Figure 3 Egocentric model of misunderstandings (adapted from Mustajoki, 2012) 72

Figure 4 The abductive research process (from Järvensivu and Törnroos, 2010) 81

Figure 5 Example of an abductive research process as an evolving mix of theory building and empirical observations (adapted from Javensivu and Tornroos, 2010) 101

Figure 6 Typology of hidden discord in globally dispersed teams 111

Figure 7 Sub-typology of misunderstandings identified in research interviews 113

Figure 8 Sub-typology of hidden disagreements identified in research interviews 119

Figure 9 Summary of findings relating to virtual team context 124

Figure 10 Summary of findings relating to patterns of communication 129

Figure 11 Summary of findings relating to power and contestation 137

Figure 12 Summary of findings relating to the emotional impact of hidden discord 141

Figure 13 Summary of findings relating to effects of hidden discord 145

Figure 14 Summary of findings relating to triggers for hidden discord 152

Figure 15 Summary of findings relating to preventing incidents of hidden discord 156

Figure 16 Summary of findings relating to managing incidents of hidden discord 162

Figure 17 Full typology of hidden discord in globally dispersed teams 222

Figure 18 Model of hidden discord effect pathways, conditions and triggers features 228

Figure 19 Managing hidden discord: intervening in and protecting against hidden discord 235

Figure 20 Research contributions: theoretical, methodological, and practical 241

Figure 22 Model of misunderstandings: contributing factors and pathways for unrecognised, contained and damaging misunderstandings 292

Figure 23 Model of hidden disagreements: contributing factors and pathways for undiscussed disagreements, contained disagreement and repressed conflict 303

List of tables

Table 1 Literature on opportunities and challenges for GVTs and which factors are related to such challenges/opportunities 28

Table 2 Three stages of communicative checking adapted from Kvale and Brinkmann (2007) 83

Table 3 Outline of initial teams for interview sample 88

Table 4 Team details according to selection criteria 94

Table 5 Typology for incidents of hidden discord 106

Table 6 Summary of cases by primary topic of discord 108

Table 7 Summary of cases by type of discord 110

Table 8 Summary of cases by topic of discord and type of discord with most common topic highlighted 110

Table 9 Presentation of data structure (aggregate codes and second order themes) clustered by relevant research question (following Gioia et al, 2013) 123

Table 10 Overview of key participants in Team A 172

Table 11 Overview of incident A(ii) 174

Table 12 Overview of incident A(iii) 186

Table 13 Overview of incident A(iv) 198

Table 14 Effects and staging of different types of misunderstandings in incidents identified in this study 300

Table 15 Effects and staging of different types of hidden disagreements 311

Chapter 1 Introduction

Rationale for study

Misunderstandings and disagreements are a part of everyday life, especially in interactions between individuals with differing native languages (Pietikäinen, 2018). To illustrate with a personal example, my wife and I come from different backgrounds; she is from Taiwan and I am from the UK. Despite being together over 15 years, in our daily interactions we often have misunderstandings. Most often these misunderstandings are not due to disagreements or lack of language skill but different approaches and priorities in conversation. For instance, for a British English speaker used to answering questions directly, the habit of Mandarin speakers to answer questions following a justification can feel evasive and unclear rather than polite. Our disagreements sometimes arise from contrasting implicit cultural assumptions which are left unexplained until triggered by an event such as a family visit or a set piece such as a wedding. Communicating with speakers of other languages requires patience and strong commitment to mutual understanding as well as long conversations. Protracted misunderstandings and surprising disagreements need to be slowly worked through by often emotional conversations.

Whilst in intimate relationships there are many opportunities and spaces for conversations which overcome and disentangle these conflicting patterns of discourse (Pietikäinen, 2018), in geographically distant work teams these conversations are far more difficult to hold (Donnelly and Proctor-Thomson, 2015). During technology mediated communication in global virtual teams (GVTs) talking at cross-purposes is both less obvious and harder to resolve in part as these are often between strangers with unfamiliar communication patterns. Often the effects of misunderstandings are disproportionately large and have significant effects on individuals and the organisational system, including distress, emotional disconnection, and rancour between groups (Robles, 2017). Because of this significance to communication, misunderstandings are a central working category in intercultural communication studies (Hinnenkamp, 1999), and are persistently studied due to being both prevalent and obscured (Pietikäinen, 2018).

Whilst important studies have been conducted on conflict (Vigier and Spencer-Oatey, 2018; Brannen and Thomas, 2010; Hong, 2010; Lee and Panteli, 2010; Hallier and Baralou, 2010) and communication breakdown (Daim et al, 2012; Lockwood, 2011; Bjørn and Ngwenyama, 2009), misunderstandings and hidden disagreements are a topic that has not to date been addressed in the GVT literature. This is perhaps due to the usual focus in management studies resting on institutional or managerial factors rather than micro-level, interpersonal interactions where these misunderstandings occur. Sociolinguistic perspectives are also rarely applied despite the

longstanding global convergence of English as the international language of business collaboration. Yet understanding the hidden communication patterns for speakers of other languages are more important than ever for the effective management of global virtual teams. Mandating non-native speakers to communicate in English can be experienced as denial of cultural identity (Bordia and Bordia, 2015; Lauring, 2008) and even hegemonic (Piekkari et al, 2005). Yet whilst English as *lingua franca* studies in linguistics have explored misunderstandings in the context of informal settings, there is a gap in the GVTs field on the subject, where power contests and computer mediated communication (CMC) are likely to greatly influence communication including the likelihood of misunderstandings (Chen et al, 2006; Weigand, 1999).

The focus of my study is on hidden (or unsurfaced) discord, with the word 'discord' indicating a lack of harmony between people. 'Discord' here is taken as an uncomfortable discrepancy between the subjective impressions of individuals in a group, that is, conflicting opinions or understandings, and is 'hidden' so that the discord is partially or fully unrealised within the group and therefore under the surface of group interactions and undiscussed. Hidden discord, then, describes situations when there is an intersubjective information deficit in a team regarding opinions or understandings.

In all its forms, hidden discord is challenge to information exchange which incorporates misunderstandings, hidden disagreements, and nonunderstandings. As presented in Chapter 3, a misunderstanding (or nonunderstanding) is a situation where subjective understandings do not match (i.e. there is a discrepancy between subjective impressions) and the group are unaware of this discrepancy (it is under the surface of group interactions). A hidden disagreement can also be categorised as a type of hidden discord: hidden disagreements are situations where subjective opinions or assumptions do not match and these opinions are not always expressed.

Whilst both misunderstandings and hidden disagreements are types of hidden discord, there are significant differences between these categories. One major difference between misunderstandings and disagreements is that the participants in a misunderstanding are in a state of ignorance, whilst the parties in a disagreement are in a state of dispute. For instance, a team member may misunderstand an instruction, and be illuminated after discussion with the manager; a team member *disagreeing* with an instruction could not be illuminated, although they could be persuaded. The resolution of a misunderstanding is, therefore, through information, whereas a disagreement is resolved through dialogue (or argumentation). In management terms, misunderstandings are more often a matter of knowledge transfer (in that misunderstandings are the result of ineffective knowledge transfer), whilst disagreements are centrally related to conflict (in that conflicts usually require disagreement and the two terms are often conflated).

Hidden disagreements, that is, disagreements which are purposefully or accidently hidden in a group, is a concept new to both sociolinguistics and GVTs, having only been used in studies on Japanese conversation management (Noda, 2004). Yet this study shows that hidden disagreements are in fact more prevalent than even misunderstandings and appear in every global team examined in this research. The frequency with which hidden disagreements occur implies that the opinions of others are difficult to discover due to knowledge transfer (Kulkarni, 2015; Hinds et al, 2014) and when discovered, differences of opinion are often repressed or unaddressed due to the heightened emotional state which can arise when disagreeing from afar. The prevalence of misunderstandings and hidden disagreements implies that hidden discord is the default position in many GVTs, a condition which is significant to the performance and cohesion of such teams.

This study was undertaken in the context of recent tendencies towards nationalism across the world (Bieber, 2018), resulting in populist movements against globalisation and multiculturalism. This has made mutual understanding across different cultural groups potentially more precarious and more difficult. GVTs host some of the most challenging intercultural dynamics, as team members are co-dependant on each other, yet their contact is mostly limited to virtual interactions. Within this forced intimacy, team members' communications are often influenced by attitudes towards the Other which are current in the media and elsewhere (Henderson, 2005). Researching hidden discord and potential mitigation strategies against discord in GVTs will contribute to understanding how to work more effectively in GVTs and potentially ease intercultural communication at a time of increased global division.

Dispersed work has become a particularly acute issue since the COVID-19 pandemic (Whillans et al, 2021; Aroles et al, 2021). Many who were unused to virtual work have been forced to work from home because of measures introduced by governments across the world, such as the closure of schools and childcare services, recommendations to work from home, as well as strict lockdown measures (Lodovici et al, 2021). Eurofound (2020) surveys have estimated the proportion of people working from home several times a week increased from 15.8% of the European working population to 35.6% after the pandemic began. Given that 46% of these workers are new to dispersed work (Eurofound, 2020), it is critical for management scholars to answer how such work can be as effective as possible, and how to manage incidents of discord which arise. Such scholarship has already found that adjustments to task, process and relationship interactions were required (Whillans et al, 2021), and many new ways of working have emerged (Aroles et al, 2021).

Research questions

As a new topic in GVTs focusing on the micro-level, this study will have a broad focus on scoping the *types of hidden discord* and the *types of effects* rather than quantitative measurement of the degree of the effect of misunderstanding on team performance.

The overall research question[1] for this study is:

> How does hidden discord impact global virtual teams?

There are also three sub questions to be answered as part of this overall question:

1. What types of hidden discord can be seen in the communications of global virtual teams?
2. What conditions generate hidden discord in the communications of global virtual teams?
3. How can the effects of hidden discord in global virtual teams be managed?

To answer the questions, I examined critical instances of hidden discord to uncover further effects and theorise on the conditions which produce such incidents. As a study engaged in the practical working lives of the research participants, techniques and approaches which lessen the effects of hidden discord will also be examined.

Structure of the thesis

Following this introduction, Chapters 2 and 3 establish the foundations of this doctoral research by setting out the relevant literature for the study, reviewing global virtual teams, and misunderstandings and disagreements in GVTs. In Chapter 4 I outline my approach to the topic, covering the proposed methodological approach, the specific methods to be used and elements of my conceptual framework. Chapters 5 and 6 present the findings of the study. Chapter 5 presents the results in aggregate following the data structure and organised according to the research questions. Chapter 6 presents three incidents from a single global team in detail. Chapter 7 summarises and contextualises answers to the research questions, and discusses the significance of the results, whilst Chapter 8 offers a conclusion for the study.

---

[1] This research question evolved over the course of the PhD process, most notably during the analysis phase of the research. The initial focus of the study was narrower, focusing on misunderstandings. Yet during the interviews and incident analysis process it became clear that disagreements and misunderstandings were often conflated. Whilst interviewees were specifically asked about misunderstandings, most incidents were later classified during typological analysis as disagreements, and several incidents were non-understandings rather than misunderstandings. Rather than ignoring these incidents as irrelevant to the research, they were analysed together as types of 'hidden discord', leading to a revision in the research questions as shown.

Chapter 2 sets up a framework for understanding GVTs in my study. This begins with defining virtuality in teams as measured by geographical dispersal and inability to immediately and consistently communicate (Schweitzer and Duxbury, 2010). I define virtual teams as groups with a common purpose, physically separated and whose communication is primarily technologically enabled. The typology of virtual teams from Panteli (2004) shows that the level of dispersal increases the challenges experienced by teams, where temporary globally dispersed teams are the most difficult to manage given a confluence of complex factors including technological, cultural, and linguistic configurations.

The literature on GVTs is then examined with reference to the challenges that most of these teams face and the factors which moderate the severity of these challenges. In GVTs, leadership can be a challenge unless the style is adapted to account for multiple boundary dilemmas. Trust and rapport are more difficult to develop without the means to develop affective ties; this can lead to more incidents of conflict and difficulties creating a group identity. Conversely there are opportunities in GVTs for more creativity and knowledge sharing between locations in well-managed GVTs. The extent to which these challenges are experienced is moderated by the degree of geographical dispersal, power dynamics, the negotiation of suitable information communication technologies (ICTs) for communication, and the level of cultural friction. The chapter ends by showing that research on moderating factors in GVTs has relied on a cognitive notion of culture, informed by Hofstede's work on culture as a set of national attributes, and has limits to its contribution to wider organisational scholarship (Hinds et al, 2011).

Chapter 3 sets out the relevance of misunderstandings and hidden disagreements to GVT settings and their potential significance. A misunderstanding is shown to be a relatively serious occurrence, more likely to occur in mixed language settings, both misunderstandings and hidden disagreements are likely to require more time and effort to resolve if occurring through remote communications. Chapter 3 begins by setting out the two factors that appear most likely to affect the incidence of misunderstandings in GVTs: technology-mediated communication and language asymmetries. Technology-mediated communication is relevant to GVTs as communication is facilitated through utilisation of a variety of technological channels in dispersed teams and these channels are where shared understanding and agreement is reached. Literature suggests that a poor match between communication purpose, channel and perception makes hidden discord more likely. Language as a factor in miscommunication in GVTs suggests that poor language proficiency leads to communication avoidance (Lauring and Klitmøller, 2015), code switching (Vigier and Spencer-Oatey, 2018), lower status (Bordia and Bordia, 2015) and commitment (Yamao and Sekiguchi, 2015). The

literature suggests that a mix of proficiencies, low tolerance, inappropriate language policies and language schisms may each exacerbate misunderstandings and hidden disagreements.

Models of misunderstanding suggest that misunderstandings occur in multilingual settings for several reasons including language differences, unwillingness to consider listener understanding due to egocentricity, asymmetrical power arrangements, weak interpersonal relationships, and mode of communication (Pietikäinen, 2018; Bjørn and Ngwenyama, 2009; Weigand, 1999; Hinnenkamp, 1999). Whilst distance, language and ICT enablement are likely to lead to more misunderstandings (Beldad and Steehouder, 2012; Avison and Banks, 2008), linguistics scholars have not examined work teams or virtual communications. The risks of misunderstandings can be reduced when interlocutors are more explicit in their communications and have accommodating attitudes towards listeners. This suggests that misunderstandings are a greater risk for GVTs than in face-to-face conversations, protracted misunderstandings could trigger splits in GVTs, and these may be more difficult to resolve through computer mediated communication. Whilst disagreements and conflicts are often conflated in GVT studies (e.g. Paul and Dennis, 2018; Kankanhalli et al, 2006), recent pragmatics research of disagreements has moved decisively away from viewing disagreements as necessarily conflictual, highlighting use of the body or eye contact to express disagreement (Toomaneejinda and Harding, 2018), and disagreement as playful (Locher and Bolander, 2017; Alzahrani, 2020). Complete repression and avoidance of disagreement is associated with restriction of learning (Marra, 2012), lack of improvisation (Chiu, 2008) and communication breakdown (Simmel, 2010[1908]). Several factors were identified which influenced disagreements and misunderstandings, including mode of communication, language differences, asymmetrical power, interpersonal relationships, and speaker egocentricity. Yet there remain significant research gaps related to disagreements and misunderstandings in GVTs, as well as conceptualisation of language and culture in GVT research, few studies of microdynamics in GVTs, and sociolinguistic studies also have few studies that account for wider contexts.

Chapter 4 outlines the methodology for this study. My methodological approach is based on an intersubjective ontology and an interpretivist epistemology which sees knowledge being built in a team through social encounters and reality as primarily formed through the interaction between individuals rather than individual cognition. As the researcher is within a social sphere that cannot be escaped, my approach to research quality necessitates a reflexive approach to aid the process of interpretation and to checking findings with various research stakeholders from research participants to academic peers.

The data collection methods are based on qualitative interviews with members of GVTs to examine critical incidents of misunderstandings. The six teams selected operated within the past three years, lasted over two years, and contained diverse organisations which varied by sectoral background. A critical incident approach was used to identify incidents of hidden discord, and where possible other members of the same team were also asked to reflect upon identified incidents. Interviews explored and developed significant incidents from a variety of perspectives and were given added depth through cross checking with written interactions that were identified as incidents by interviewees. The analysis was conducted using grounded coding of text using Gioia et al's (2012) approach, typological analysis of incidents, and micro analysis of three critical incidents in Team A.

Chapter 5 presents the results of the interviews in details, through articulating my data structure and outlining the typology of hidden discord. This exercise showed that most disagreements were ignored, repressed, or framed as misunderstandings, highlighting the tendency towards hiding discord in GVTs. For both misunderstandings and disagreements, most incidents were uncontained, which highlighted problems with emotional management in GVTs. Three broad conditions were associated with hidden discord in GVTS: virtual team context, communication patterns, and power and contestation. The virtually dispersed context meant that each team had to manage three separate and interlinked challenges: computer mediated communication, linguistic asymmetry, and cultural diversity, which lead to a naturally uneasy communication context. The second condition, communication patterns, shows how communication mode and intensity can produce discord in groups, as well as how clashing communication behaviours and habits produced discord, particularly where cultural discourse practices were unusual. The final condition, power, and contestation, showed that contestation over meaning often resulted in discord where participants expressed their desire to control a project, or competition for resources; this often led to disagreements and disempowerment for staff which could create communication blockages.

The effects of hidden discord begin with short-term emotional impacts, with discord producing anger, embarrassment and shame, and anxiety in GVTs. Despite distances, the social nature of emotions meant that these feelings would quickly spread throughout a group. The longer-term effects fell into three categories: team efficiency, addressing underlying issues, and splits in teams. Incidents also could offer an opportunity for teams to discuss and reflect the causes of discord and improve upon role clarity, shared purpose, and communication habits and modes. In uncontained incidents, splits could result where participants were ejected from a team, blamed, and side-lined, excluded from the core team, or in rare occasions split on national lines where insurmountable cultural/linguistic differences were encountered. Such effects make management of hidden discord

through prevention and incident management an important exercise. Factors which helped to prevent hidden discord included effective communication skills, and accommodation of differences through creating common ground. Incident management was supported through familiar and strong interpersonal relationships, and management using an empathic skillset to understand other team members.

Chapter 6 investigated three incidents within a single team to add required detail to responses to the research questions and outline the process of hidden discord within a team. Team A had the richest dataset available with more than 1000 emails, meeting minutes, reports and five interviews. This team conducted a three-year research and development project across five EU countries. Newly formed for the purpose of a research and development project, the team had a range of linguistic abilities and little familiarity with each other or ways of working leading to two major misunderstandings and one disagreement. The incidents were largely uncontrolled due to poor initial emotional management, and the heightened emotions in early events were revived in later events. Sensemaking and emergence of leadership were also repeated from one incident to the next, which resolved some management issues but also created a platform for further contestation. A later disagreement clarified roles after a failed leadership challenge, and face-to-face confrontations allowed direct and difficult discussions to occur.

The analysis of Team A's incidents highlighted the uniqueness of each incident, where two uncontained misunderstandings of tasks occurred simultaneously with very different pathways, showing hidden discord does not have 'ideal types' but are liminal, contingent events, especially sensitive to the communication medium where they are discovered and discussed. In addition, micro-analysis of these incidents showed that, close up, an 'incident' is a series of events, clustering and constantly dealt with as they are embedded in the communications and tasks of a team, with incidents being closely tied to a project lifecycle. Hidden discord was also shown to be both a symptom of communication issues and a unique opportunity to pivot a team to address systemic issues around habits, group culture and communication tools.

Chapter 7 discusses the results of the research in relation to the research questions and outline the contributions to scholarship. In terms of the conditions which lead to hidden discord in GVTs, most misunderstandings occurred under conditions of language asymmetries, poor communication design and lack of verification, whilst most disagreements featured conditions of pre-existing disagreements, organisational contestation, and avoidance of discussion. Whilst not occurring in most cases, unaligned patterns of communication were a frequent condition for all incidents. Each type of discord had associated effects along its pathway, for instance, emotionally contained

incidents saw anger, embarrassment and relief expressed, and had the effects of supporting norms of containment, strengthening the social order and team atmosphere. Management of hidden discord was achieved through both prevention and incident management. In terms of overall approaches, it was shown to be important to correctly identify and label an incident, to monitor and pre-empt discord before it arose, and to allow difficult discussion to occur.

Five strands of contribution were also identified from the PhD. First, there was a tendency to avoid and repress discord in GVTs: due to the difficulties in directly addressing difficult topics in globally dispersed teams unsurfaced phenomena are particularly common and difficult. Second, the study outlined several conditions for communication breakdown, as well as unique triggers for discord in GVTs, which had been a research gap in GVTs. Third, several sociolinguistic insights were also highlighted, including the concept of interrupted clarification cycles in GVTs. The study also usefully used a process orientated conception of the interface between culture and language which sees culture as embedded in group practices rather than in cognition of individuals. Fourth, methodologically the study provided a unique use of the critical incident approach which addressed both individual cases and teams, providing both an understanding of micro-dynamics and a systemic account. Finally, the study gives a contribution to how to design and intervene in GVT to manage hidden discord, which is particularly relevant given the recent turn towards remote work.

The conclusion of the study offers a summary of the study, its limitations, further research topics and personal reflections. The limitations of the study were mostly related to the imprecise categorisation process due to the intersubjective nature of discord in groups, my direct involvement in most teams concerned, the rarity of the type of GVT covered in this study, and the research being carried out before COVID-19, an event which shifted many working remote practices. Further research could be conducted on the post-Covid management of hidden discord, the role of deceit in discord incidents, studies which directly observe hidden discord, and the social spread of emotions in GVTs.

Chapter 2 Literature review on Global Virtual Teams

Introduction

Virtual teams have been studied in the management field since the mid-1990s following the rise of computer mediated communications (CMC) and global teams. This literature is significant in situating the context within which misunderstandings and disagreements might occur given the huge variety of configurations which virtual work takes place within (Panteli, 2004). As the most distant and culturally diverse type of virtual team, global virtual teams are of particular interest and these contexts present some difficult challenges (Schweitzer and Duxbury, 2010) including leading remotely, power differentials, developing trust and rapport, creativity, knowledge sharing across boundaries and constructing a group identity. The extent to which these challenges are manageable are moderated by a number of factors including degree of dispersal, ICT selection and cultural friction. This chapter maps the virtual team literature covering what virtual teams are, the core characteristics of virtual teams, types of virtual team, the moderators, and challenges of working in global virtual teams and the current research gaps in the global virtual team literature. Chapter 3 completes the literature review through focusing upon computer mediated communication (CMC), language difference and hidden discord.

What are virtual teams?

A virtual team is a category of team which is not wholly collocated. Virtuality though is not simply the opposite of collocation, as evidenced by the existence of hybrid teams (partly collocated and partly virtual). Beyond these broad definitions, the various dimensions of virtuality are contested. The most cited factor that defines virtuality is geographic spread (Cohen and Gibson, 2003; Kirkman et al, 2005; Hoch and Kozlowski, 2014; Suh et al, 2011) followed by technology usage (Cohen and Gibson, 2003; Rapp et al, 2010; Ganesh and Gupta, 2010). Other cited factors that define virtuality are the transitory nature of virtual teams (Harvey et al, 2005), differences in work practices from collocated teams (Chudoba et al, 2005), discontinuities (Asatiani and Penttinen, 2019; Yeow, 2014; Dixon and Panteli, 2010), and the unique relationships between team members (Gibson and Gibbs, 2006).

Schweitzer and Duxbury's article (2010) explored the necessary conditions for a team to be virtual, finding that among the various factors, only geographical dispersal and asynchronicity were necessary and sufficient for a team to be virtual. Schweitzer and Duxbury argue that temporal and spatial distance in a team can be measured by the amount of time team members work virtually, the proportion of members who are collocated, and the physical distance between members (Schweitzer and Duxbury, 2010). Following this definition, teams with a degree of virtuality consist of

members who are dislocated from each other. This dislocation leads to reliance on communication technology (Schweitzer and Duxbury, 2010) and to discontinuities in relationships and workflow (Dixon and Panteli, 2010).

This definition allows for degrees of virtuality (through widening the range of dispersal or the level of synchronicity). It also logically lays the foundations for why virtual teams rely on ICT and lack face-to-face meetings. Having a spectrum of virtuality is important because many virtual team studies have contrasted wholly virtual and wholly proximate teams when most teams fall between the two extremes (Schweitzer and Duxbury, 2010). Given this, the working definition in this review for a virtual team is a team "working together interdependently with mutual accountability for a common goal", some of whose members "do not work in either the same place and/or at the same time" (Schweitzer and Duxbury, 2010: 274).

Core characteristics of virtual teams

Whilst a working definition of virtual teams describes a group working together who are dispersed in time and space, this does not lead to a better understanding of the characteristics of virtual teams or how virtual teams differ from conventional teams. Since management literature began studying virtual teams though, there has been a degree of consensus on how these teams are different; as early as 1999, virtual teams were described as "teams with a common purpose that use technology to cross time zones, distance, and the boundaries of organizations" (Lipnack and Stamps, 1999: 17). These three aspects (common purpose, technology, and dispersal) are each explored below in more detail.

Common purpose

Teams have been studied in management scholarship for around 40 years, a field which saw exponential growth following seminal texts such as Belbin's (1981) work on successful teams. This work built on previous work such as Benne and Sheats's (1948) study of discussion groups which focused on individual behaviours and roles within groups, particularly task roles.

Initial studies of individuals within groups gave way to later work that focused on what differentiated groups from teams: having a common purpose is one of the most identifiable aspects of team working, and the most cited necessary and sufficient condition for a team. Teams are groups of individuals who are working together interdependently with a common purpose for which they are mutually accountable (Cohen and Bailey, 1997; Powell et al, 2004; Hackman, 1990). However this should not imply a static model of teams and teamwork is adopted in this thesis: common goals shift, are partially held and respond to complex circumstances. The approach taken in this thesis adopts a microdynamics-oriented approach that considers the essentially relational and organizing

nature of teams can provide new insights to our understanding of teamwork (Humphrey and Aime, 2014); yet alignment to a sense of common purpose remains an important marker for teams to coalesce around. Given this, virtual teams must be interdependent and possess a common purpose (which could be implicit or explicit) to first be considered a team.

Dispersal

Geographical dispersal is the most commonly cited characteristic which differentiates virtual from conventional teams (Maznevski and Chudoba, 2000; Schweitzer and Duxbury, 2010). Members in virtual teams are necessarily dispersed to some degree, they are never wholly and permanently collocated. Dispersal can be spatial and/or temporal. In terms of space, physically a person can be present or absent as virtuality implies that a thing or person can be physically absent and yet present through another medium, such as a letter, telephone, or computer (Chiasson and Panteli, 2008). Temporal dispersal relates to whether interactions are at the same time (synchronous) or not at the same time (asynchronous) (Chiasson and Panteli, 2008). Virtuality is associated with an increased ability to conduct asynchronous communication, therefore creating more opportunities for working across different time zones on the same project. As well as space and time, dimensions of dispersal include socio-demographic characteristics such as cultural and linguistic diversity (Griffith et al 2003; Kirkman and Mathieu, 2005; O'Leary and Cummings, 2007).

Whilst dispersal has objective features (such as distance, time zone distribution and nation), studies have also embraced perceived proximity as a critical concept for understanding collaboration across geographic distances (O’Leary et al, 2014). Perceived proximity mediates the connections between communication and relationship quality, and between identification and relationship quality. Whilst these factors are related, perceived proximity/distance and objective proximity/distance are empirically quite distinct and mediated by communication and, particularly, by shared identification (O’Leary et al, 2014).

Technologically enabled

Technology is a crucial component of virtual teams given that a significant portion of team interactions are mediated through communication technologies. Technological reliance is one factor which makes virtual teams a relatively new phenomenon: whilst global organisations have existed for millennia, teams involved in day-to-day tasks which require frequent communication and fast responses have only become possible for most organisations in the past 25 years following the development of the internet.

Given this, the centrality of ICT to team functioning in virtual teams is one of two key differences to conventional teams alongside dispersal. However, the effects of technological reliance are not clear:

some studies show that ICT impairs performance (Schweitzer and Duxbury, 2010; van der Kleij et al, 2009) others suggest ICT has no effect on performance (Han et al, 2011). Whilst some studies (Sheer and Chen, 2004) have assumed that deeper representation of the self through technology must have a positive impact, other studies have found that very rich ICTs such as video conferencing may actually be unhelpful to build trust (Altschuller and Benbunan-Fich, 2013).

In general, ICT develops in organisational structures to minimise the communications needed to sustain an organisation; this sensitivity to context means that configurations of technology are rarely identical across different organisations (Ribes et al, 2013). Ongoing adaption of communication technologies is needed to effectively structure interaction and enable productivity (Poole and DeSanctis, 2004). Adaptation of technology has been studied in depth in the virtual team field. Thomas and Bostrom (2010) identify five technology adaptation strategies for virtual teams: switching, expanding, merging, modifying, and creating. Each adaptation strategy influences team performance and relations, displaying the interplay between the team, leadership, and the technology. For instance, more facilitative, supporting actions by team leaders rather than command and control are associated with adapting technology to circumstances (Thomas and Bostrom, 2010). Given that ICT is adopted on a needs basis, ICT is able to fill structural gaps (Suh et al, 2011) and provides organisational resilience in the case of unexpected events such as natural disasters (Donnelly and Proctor-Thomson, 2015).

ICT is treated as a passive factor in some virtual team literature (for instance, Piekkari et al, 2005) but in Baralou and McInnes' (2013) study technology, a broad category which ICT is a part of, is shown as an agent that provides affordances in communication such as revisiting past communications and the ability to swiftly change code to go 'backstage'. This dynamism suggests that, particularly in virtual teams, technology is not only an antecedent to working virtually but also a moderating factor. Though this varies by management sub-field, the active role of technology is only sometimes acknowledged as most virtual team studies place the human at the centre. When human and technological work is seen as interchangeable, work can be delegated to technology (Ribes et al, 2013). Assignment of tasks to technology can affect the organisation of work, how outcomes are achieved, the distribution of responsibilities, and shifts in the visibility of work/actors. When applied appropriately, delegation to technology can reduce communications work whilst highlighting different forms of technical and organisational work (Ribes et al, 2013).[2] When

---

[2] Whilst Ribes et al. claim that technology is egalitarian arguably technology has in-built hierarchies such as administrator rights and technical skills. The uneven assimilation of technology in organisations observed by Barnes (2012) implies that there are still significant barriers to adopting ICTs.

delegated poorly, the reduction of communication and interaction deprives individuals of human contact and some of the social aspects of working life are lost (Barnes, 2012). Negotiating ICT is therefore one of the key tasks for members for all virtual teams.

ICT as a mediating factor in GVTs is explored further in Chapter 3.

Typology of virtual teams

Whilst virtual teams are united by common purpose, technological mediation, and dispersal, within this definition, a large range of teams exist. This implies there is a continuation or typology for virtual teams which is useful to unpack to identify the subtypes of team seen in this study. Part of the difficulty in writing definitively about virtual teams is their diversity. The associated challenges of working virtual vary on the lifespans and degrees of heterogeneity which can be seen in relation to organisation, team, nation, culture, nationality, expertise, and profession amongst other categories. Having a framework to understand how virtual teams differ is important as the level and types of challenge are affected by the configuration of factors.

Typologies can be cut in different ways and are often implicit. Schweitzer and Duxbury's (2010) definition of virtual teams as existing along an axis of virtuality shows that the greater dispersion the more virtual a team is, the greater they must rely on ICT and the more difficult a team will find it to complete a task. Similarly, Cascio and Shurygailo (2003) categorised virtual teams by the number of locations and managers in a team. The drawback of these conceptions is that they focus on dispersion and scale only. Recent scholarship such as Yeoh (2014) has explored other aspects such as the particular challenges of temporary virtual teams, whilst closeness to the main firm of the VT has been recognised as important for over a decade (for example, Heikkilä and Smale, 2011; Harzing et all, 2011).

Given this, Panteli (2004) developed a model for understanding the different types of virtual team along three overarching axes: continuity, relation to the firm, and degree of dispersal. The relevant figure is reproduced below with highlights to denote the expected level of challenge along the axes.

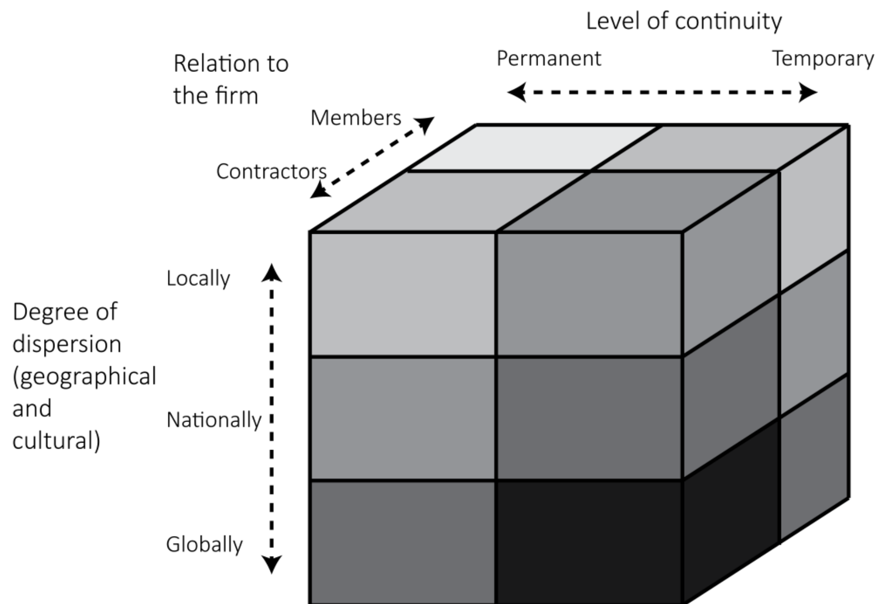

Figure 1: Typology of virtual teams, adapted from Panteli (2004), shading indicates expected level of challenges

These three dimensions are explored below in turn.

Relation to firm

Members of virtual teams can be distinguished by relation to the firm which has overall responsibility for the task the team was set up to accomplish. Conventionally, this is a distinction between intra-organisational collaboration and inter-organisational teams. The former has team members belonging to the same parent organisation and thus will usually face fewer barriers in setting ground rules or in resolving disputes. In teams which are a mix of permanent employees and those whose relation to the firm is looser, such as contractors, there are greater potential challenges.

Inter-organisational teams are specifically associated with difficulties in forming a common identity. Organisational identification is valued as it makes people not only consider themselves as independent workers but as part of something wider (Pauleen and Yoong, 2001) and contractors will struggle to hold such an identity due to their loose relationship to the core team. Contractors and others who are loosely related to the firm are associated with numerous risks, including others' opportunism, reduced visibility of work, and unpredictable failures of the underlying technology (Cramton, 2001).

Continuity/discontinuity

Virtual teams can be permanent (where membership of a group is continuous such as a sitting committee) or temporary (such as a project team). Temporary virtual teams are assembled for a

discrete purpose and are discontinued upon completion. Temporary virtual teams comprise members who are less familiar with each other and therefore generally face larger challenges.

Temporary virtual teams are frequently brought together for a single purpose or goal, such as to brainstorm solutions to departmental or organisational issues, or to complete time-bounded projects, and thus differ from ongoing VTs in both structure and orientation (Lowry et al, 2015). Studies such as Panteli and Duncan (2004) have shown that trust can be a more crucial issue in temporary virtual teams, and that team members often trust team members implicitly as a project begins and retain that trust until it is disillusioned. Swift trust exists as a disposition before the team exists and so is less contingent on the situation than on the timing of the project (Panteli and Duncan, 2004).

Continuity is not only related to the time that a team exists for but also the number of boundaries that a team is faced with. Teams which have to continuously cross domains are said to be characterised by discontinuities (Asatiani and Penttinen, 2019). In such teams, members must constantly cross time and distance boundaries, as well as often encountering organisational, functional, and cultural boundaries (Watson-Manheim et al, 2012; Hinds et al, 2011). Boundaries in virtual teams are neither rigid nor easily definable, and each discontinuity is responded to subjectively by individuals. Being inherently dynamic, boundaries also evolve over time and through team interactions (Watson-Manheim et al, 2012).

Boundaries can be crossed within projects, between projects, and between projects and the host organisation (Asatiani and Penttinen, 2019; Yeow, 2014). Virtual teams face discontinuities such as discrepancies, new experiences, and responses of new challenges (Watson-Manheim et al, 2012). These directly affect the process of a team carrying out a task: lags in communications, increased misunderstandings, reduced information seeking and incoherent messages are associated with working in virtual teams (Andres, 2012). Any of these micro-events can act as triggers for disruption or interruption bringing unwanted uncertainty to tasks undergone by virtual teams (Gilson et al, 2015). Continuity and discontinuity are both variable in virtual teams and the degree to which these are present influences the number of difficulties that a virtual team is likely to encounter.

Degree of dispersion

The definition of virtual teams by Schweitzer and Duxbury which began this review stated that teams become virtual when there is sufficient temporal and spatial distance (Schweitzer and Duxbury, 2010). Given that virtuality is experienced in degrees, few virtual teams are wholly virtual, and the majority are hybrid. Hybrid teams relate to any team where individuals collaborate both virtually as well as face-to-face (Cheng et al, 2015). Hybrid teams do not have the problems of completely virtual

teams, which are well documented in the literature (Sarker et al 2011; Yusof and Zakaria, 2012), but they are challenged by the virtual nature of their interaction, which have challenges related to the lack of physical cues (Cascio, 2000; Greenberg et al, 2007).

Dispersal has been distinguished into local, national, and global virtual teams (Panteli, 2004). Even GVTs are likely to meet face-to-face at least once as long as they do not have a trivial duration or budget, even if first 'meetings' are now more commonly virtual (Cummings and Dennis, 2018). Global virtual teams have twin challenges that are not seen in local or national virtual teams in that they have the greatest physical distance of all team types and also have significant cultural friction as workers are embedded in different national cultures and contexts. Under this definition, GVTs are an extreme form of virtual team and have complexities that are not seen in other types of virtual team.

As this thesis explores language in global virtual teams, the remainder of this review looks at GVTs in detail, examining the moderating factors, common challenges, usual methodologies, and research gaps.

Global virtual teams

Global virtual or dispersed teams were almost unheard of 30 years ago but the development of advanced ICTs has enabled international teams to function effectively, providing far more opportunities for collaboration than was previously possible. Balanced against these opportunities, there are risks to operating globally which are beyond those faced by local and national virtual teams. For GVTs the challenges in management, selection of technology, group bonds and social relationships are altered by the extreme distance between members.

As an illustrative example, Yan and Panteli's (2011) study of a globally dispersed virtual consulting organisation found that attempts to centrally control and organise consultants were mostly resisted and there were few recourses available to the administrator in the face of such resistance. In this case, the mutual interest in working together and implicit trust in the team studied formed the basis of social order, rather than the containing structures such as intranet and monthly meetings (Yan and Panteli, 2011). These micro-level interactions were the foundations for collective endeavour and these are difficult to manage (and study) remotely, particularly as asynchronous communication lends itself to back-stage behaviour where groups (and sub-groups) can form. The case presented difficulties in spatial dispersal and ICTs, particularly in getting members to use online folder sharing systems. This in turn affected knowledge sharing, leadership and the pathway through which group identity was formed. In other cases moderating factors might include cultural friction and language differentials rather than ICT and power. GVTs also face further challenges to creativity, power differentials, and trust and rapport. This collection of five challenges and four moderating factors are

the most commonly experienced according to the management literature and are summarised in Table 1 below. The organisation of this table is not intended to suggest that these categories are mutually exclusive. ‘Moderators’ are also to some extent interchangeable with opportunities and challenges. However, to provide an overview, a simple model such as this can be helpful to ensure the reader has a grasp of where research on GVTs has concentrated over the past 20 years.

Opportunities and challenges in GVTS	**Primary moderating factors in GVTs**
Leadership	Cultural diversity (Yeow, 2014) Dispersal (Cousins et al, 2007) Language (Vigier and Spencer-Oatey, 2018; Tenzer and Pudelko, 2017; Paunova, 2017; Hinds et al, 2014; Zander et al, 2011) Power (Lauring and Klitmøller, 2015; Hoch and Kozlowski, 2014)
Trust and rapport	Cultural diversity (Minbaeva et al, 2018; Lowry et al, 2010; Garrison et al, 2010; Chua et al, 2009; Atuahene-Gima and Li, 2002; Huff and Kelley, 2003) Dispersal (Gilson et al, 2015; Ganesh and Gupta, 2010; Bryant et al, 2009; Wrench and Punyanunt-Carter, 2007) ICT (Lee et al, 2021; Seidel et al, 2018; Altschuller and Benbunan-Fich, 2013; Lee and Panteli, 2010; Panteli and Chiasson, 2008) Language (Kulkarni, 2015; Hinds et al, 2014; Kulkarni, 2015; Neeley et al, 2012; Zander et al, 2011; Feely and Harzing, 2003) Power (Tenzer and Pudelko, 2017)
Creativity	Cultural friction (Gilson et al, 2015; Au and Marks, 2012; Stahl et al, 2010; Gibson and Gibbs, 2006) Power (Leung et al, 2005)
Knowledge sharing	Cultural diversity (Yeow, 2014; Au and Marks, 2012; Gilson and Gibbs, 2006; Maddux and Yuki, 2006) Dispersal (Shen et al, 2014) ICT (Lee et al, 2021; Waizenegger et al, 2020; Hacker et al, 2020; Warkentin et al, 2015; Yeow, 2014; Duranti and de Almeida, 2012; Choi et al, 2010; Orlikowski and Scott, 2008; Dennis et al, 2008; Rice et al, 2007; Zammuto et al, 2007; DeLuca and Valacich, 2006; Sheer and Chen, 2004) Language (Kulkarni, 2015; Hinds et al, 2014; Sweeney and Zhu, 2010; Welch and Welch, 2008; Charles and Marschan-Piekkari, 2002)

	Power (Daim et al, 2012; Lockwood, 2011; Avison and Banks, 2008)
Group identity and social order	Cultural diversity (Yeow, 2014; Hoch and Kozlowski, 2014; Hinds et al, 2011; Yan and Panteli, 2011; O'Leary and Mortensen, 2010; Levina and Vaast, 2008; Orr and Scott, 2008; Henderson, 2005; Earlet and Mosakowski, 2000) ICT (Aroles et al, 2021; Hacker et al, 2020) Language (Vigier and Spencer-Oatey, 2018; Tenzer and Pudelko, 2017; Lauring and Klitmøller, 2015; Bordia and Bordia, 2015; Janssens and Steyaert, 2014; Hinds et al, 2014; Hinds et al, 2014; Pazos, 2012; Neeley et al, 2012; Zander et al, 2011; Lauring, 2008; Rogerson-Revell, 2007; Luo and Shenkar, 2006; Fredriksson et al, 2006; Chen et al, 2006; Henderson, 2005) Power (Hallier and Baralou, 2010)

Table 1 Literature on opportunities and challenges for GVTs and which factors are related to such challenges/opportunities

The five moderating factors on the left side of Table 1 each influence the degree that challenges are experienced, whilst simultaneously forming the pre-conditions for the GVT itself. These factors are each constitutive of the team structures and are dynamic, changeable depending on how team members exercise their own agency.

Before exploring these moderating factors, the literature on the challenges and opportunities present in virtual working are discussed in the following section.

Global virtual team challenges and opportunities

The literature on GVTs has often concentrated upon dispersed work in contrast to co-located work, and as such has identified new difficulties that have arisen from geographical dispersal, as well as opportunities to improve the effectiveness of work by taking advantage of the unique aspects of the global virtual context. These are outlined below.

Leading remotely

In the global virtual teams context, skilful management and leadership becomes more necessary and more challenging (Lim, 2018). Virtual teams may work best in structured situations and with clear divisions of labour, tasks, and roles (Holtgrewe, 2014), and skilful management is needed to create such conditions. In a study of organisations reacting to a natural disaster which led to emergency teleworking, Donnelly and Proctor-Thomson (2015) found that when line managers were better prepared to telework, they could more effectively allocate and schedule work, and overcome challenges. Perhaps in recognition of the practical difficulties in leading remotely, virtuality tends to improve perceptions of managerial competence in team members (Henderson, 2008). In GVTs, lack

of face-to-face interactions can be a hindrance in resolving problems and managers may need to change the structure of interactions to create opportunities to resolve problems, for example by creating more space for feedback to surface issues. The importance of effective management was illustrated in a study of the factors affecting the popularity of Open-Source Software (OSS). In this case, marshalling team competences, the development of competences and the management of cooperation each positively affected the popularity of the OSS (Ghapanchi, 2013). Miao et al (2018) also found that a leader with emotional intelligence can have varying benefits depending on the cultural traits of the team being managed, indicating the importance of assigning suitable leaders in multinational work settings. It is of particular relevance to the topic of hidden discord since supportive leadership is necessary to facilitate conflict resolution and to develop a psychologically supportive working environment (Lim, 2018).

The level of challenge to manage a virtual team is dependent on a series of factors. For instance, team composition can greatly influence the degree of managerial involvement as some types of team members appear better able to cope with virtuality and so require less guidance. Whilst this is increasingly less relevant given the growing ubiquity of virtuality within organisations, younger generations remain more comfortable working virtually than older generations (Berg, 2012). Attitudes such as being open to experience also influence the ease with which people can work virtually (Luse et al, 2013).

In the context of a temporary GVT, the coordinator is particularly important in establishing early communication and a social atmosphere amongst team members (Coppola et al, 2004). Engaging members of a temporary team is important as virtual team members are often members of multiple project teams. In virtual teams it is often difficult to directly observe colleagues and the strain from workload can be suffered in silence. In temporary virtual teams, often the concurrent nature and strain of virtual projects leaves less time for use on the permanent organisation as temporary projects are prioritised (Yeow, 2014).

Whilst members can make a managers task easier, managers of virtual teams always play a key role as boundary spanners (Levina and Vaast, 2005) traversing boundaries such as time, task, team, and transitions (Yeow, 2014). Given the discontinuities and boundaries that need to be negotiated, each virtual team must navigate a series of intrinsic boundary-based dilemmas to achieve their objectives. Cousins et al (2007) showed how managers needed to make decisions on what they called 'paradoxical frames', a series of decisions on four fundamental issues related to virtual team culture and functioning: remoteness-closeness, cultural uniformity-cultural diversity, rationality-emotionality, and control-empowerment.

These frames can be particularly difficult to negotiate for managers who are used to co-located teams (Cousins et al, 2007). Managers often struggle when using traditional leadership styles such as command and control because virtuality often has a levelling effect by in reducing status differences between team members (Anderson et al, 2007); power resistance techniques such as silence are very difficult to address when at a distance. Because of this levelling, Hoch and Kozlowski found that virtuality hampers the relation between hierarchical leadership and performance (Hoch and Kozlowski, 2014).[3]

Management challenges do not occur in isolation. Encountering issues such as low information sharing can have a negative effect on coordination (Kotlarsky and Oshri, 2005) making poor communication more difficult to resolve by coordinators. Given these multiple pressures, virtual teams require constant attention and the amount of time allocated to the focal team has been shown to be an important success factor for virtual teams (Cummings and Haas, 2012). Given close control is fraught with difficulties, team management remains important to stop tasks from drifting and to ameliorate the social and mental effects of computer mediated communications including isolation.

Developing trust and rapport

The building blocks of social order in all teams are relationships between members. One of the main types of relational ties found to be important in global virtual teams is trust, conventionally divided into cognition-based trust (that is based on rational factors) and affect-based trust (that is emotion and care based). Trust is more necessary in global virtual teams due to the lack of monitoring and because member relationships are not strengthened by continuous face-to-face contact. This can result in 'imagined deceit' due to lack of knowledge of others' actions and weaker trust. This was demonstrated in that trust becomes a less important factor in virtual teams when actions are transparent (Goh and Wasko, 2012). However, Altschuller and Benbunan-Fich (2013) found that immediacy in communications is not necessarily helpful in building trust as when rehearsability was removed from online communications (e.g. others could see typing in progress) trust was reduced. Beside this, several moderating factors have been found which all influence trust in virtual teams including culture, cultural diversity, social presence, and group composition (Lowry, et al, 2010).

[3] Zygmunt Bauman's Liquid Modernity (1999) asserts that power is associated with the capacity to avoid responsibility without consequences. Avoidance of others may be considered a feature of remote work, and the capacity for avoidance increases with physical distance. This increase in the capacity for avoidance for all team members levels hierarchical power structures to an extent, making command and control more difficult. Leaders though must increase their presence in global teams to ensure responsibilities are carried out.

Issues related to cultural diversity in GVTs have been shown to be dampened as a factor in high-trust teams (Garrison et al, 2010). Against this, feelings of similarity within groups can predict trust, up to a certain point of disclosure (Altschuller and Benbunan-Fich, 2013) making culturally diverse teams more likely to experience trust issues (Lowry et al, 2010). Studies on culture's effect on trust usually follows McAllister's scheme that relationships, citizenship, and interaction are all trust predictors (e.g. Atuahene-Gima and Li, 2002; Huff and Kelley, 2003) so that different cultures have varying dispositions to trusting others.

Developing high trust within global virtual teams may be challenging as cultural friction is associated with fewer affective ties and more instrumental bonds (Manev and Stevenson, 2001). The relational 'palette' or templates that individuals draw on differ greatly between cultures; for instance, how one might relate to one's manager in China would be very different to relations with one's manager in Sweden. Studies have found that instrumental relations differ between colleagues by nation: Chinese workers tend to pursue affective ties with colleagues who they wish to use or rely on, whilst Americans limit affective closeness with those they wish to depend on for instrumental resources (Chua et al, 2009).

Whilst there has been much focus in the virtual team literature on trust in the past 15 years, other relationship factors appear to also be important in team collaboration: a study of two system development projects showed the trust, respect and rapport were each needed for collaborative work, with interviewees emphasising the importance of rapport much more than trust (Kotlarsky and Oshri, 2005). As a more affect-based concept, rapport can be successfully built using human-centric activities such as storytelling and rituals (Kotlarsky and Oshri, 2005) which can be relatively difficult to apply from afar.

Despite studies showing that virtuality can improve team satisfaction (Henderson, 2008; Chi et al, 2012) wellbeing and rapport are also likely to be affected negatively in global virtual teams (Gilson et al, 2015). Lower rapport is in part related to fewer social opportunities in virtual teams, resulting in less social loafing (Bryant et al, 2009) as well as less extra role behaviour (Ganesh and Gupta, 2010). According to Lowry, given the difficulty in socialising virtually, smaller teams (which usually have more intimate relations) are less suited to virtual teamwork (Lowry et al, 2006). This seems counter-intuitive as smaller teams are beneficial to develop relationships and so small groups could help develop stronger rapport across a wider team.

Affect and emotion in virtual teams were the lenses of Baralou and McInnes's (2013) study of a transnational collaborative project 'VR Ships'. In this project, the researchers found that whilst

physical settings contain regular emotion protocols that influence social relations (for instance in a movie theatre), computer mediated interactions are less fixed and a single ICT such as Skype can be used for a debating chamber, a meeting, a chat or even a group huddle (Baralou and McInnes, 2013). Seeing emotions primarily as communicative and social, the authors found three mechanisms by which emotions were communicated and interpreted in virtual teams: locating (gauging who interactors were), relational distance (negotiating expected behaviours and authenticity), and situating interactions (setting norms of participation, bounded communication and working with the technological context). The study showed that rather than characterising virtual teams as unstable, it is more useful to question and find frames for how stable relationships and order can be achieved.

At the micro-level, managing presence across the lifespan of a virtual team is an under-appreciated aspect of building interpersonal relationships in global virtual teams. Presence is not always a positive factor: more social presence (for example in face-to-face meetings) has been correlated with increased social pressure (Miranda and Saunders, 2003) and actually may reduce trust. For instance, Lowry et al's (2010) experimental study showed that among several configurations of virtuality, the lowest trust was seen in homogeneous face-to-face teams. In virtual teams, partial presence may improve interpersonal trust (Altschuller and Benbunan-Fich, 2013); more ambiguity about another person's traits can prompt perceived similarity and warmth (Lowry et al, 2010) though length of collaboration in real-world teams may ameliorate this effect.

When personal ties in a virtual team become antagonistic, conflict, disagreements and conflicts can develop between individuals, groups, and organisations. This is particularly frequent in virtual collaborations, where conflict has a deep impact, even down to the selection of communication media (Lee and Panteli, 2010). Often subgroups indicate past conflicts or predict conflict; subgroups can result from different ideas and norms about work, such as how deadlines are interpreted. Conflict can therefore be associated with higher transaction costs, and ultimately lower project success rates.

When conflict occurs it can also have a negative effect on group identity and cohesion generally, leading to disengagement (Hallier and Baralou, 2010). Cultural diversity is related to conflict, though studies have not been unanimous on its effect: some studies found that cultural diversity promotes conflict (Dubé and Paré, 2001; Kankanhalli et al, 2006), whilst others find it has no impact on conflict (Mortensen and Hinds, 2001). It does appear that cultural diversity is likely to lead to more fundamental differences in ways of working together, particularly given studies that have shown

how even the conception of time can be incompatible across group members. Conflict in GVTs[4] can be handled in various ways such as the inclusion of some workers who are bicultural and can reliably interpret and mediate between the conflicting parties; this can allow for a smoother adaptation process (Brannen and Thomas, 2010; Hong, 2010).

Creativity

Until relatively recently, the study of how creativity is generated has focused on economies, regions, and organisations rather than how it occurs between individuals (Webster and Leung, 2017), which treats creativity and innovation as outcomes rather than improvisation processes which are integral to human behaviour related to knowledge and problem-solving which occur in any context (Pink et al, 2017). Creativity in virtual teams is related to team sharing atmosphere (Rowe et al, 2021) as well as psychological safety, which involves but is beyond interpersonal trust: a team climate characterised by interpersonal trust and mutual respect, where people are comfortable about themselves (Edmondson, 1999). In such environments, team members are willing collaborators so that a task can benefit from a wide breadth of experience (Rowe et al, 2021). Relatedly, Chamakiotis and Panteli (2017) found that leadership was also important to support creativity, and that different types of leadership were needed depending on stage: idea generation, development, finalisation, and evaluation (Nemiro, 2002).

Many studies on creativity in virtual teams have used diversity as a conceptual lens, yet the overall impact of cultural diversity on creativity remains unclear. Studies have found that national differences in virtual teams can have a negative impact on creativity (Au and Marks, 2012) particularly when technical experience differs (Gilson et al, 2015). Gibson and Gibbs (2006) found that multinational diversity decreases innovation in general and this effect is compounded when members of the virtual team feel psychologically unsafe, such as when workers feel their job is vulnerable (Cramton and Hinds, 2005). However, these findings do not necessarily follow studies in the team creativity literature which suggests that innovation requires diversity, and that cultural diversity makes adaptation more likely (Gilson et al, 2015).

Given this discrepancy between how diversity should help creativity and what happens in virtual teams, it appears that virtuality itself impacts on how culturally diverse teams work together. There are a number of mechanisms that can be used to ensure that cultural diversity does not become a divisive factor and creativity is maintained. However at a team level it is unclear exactly how cultural

---

[4] Chapter 3 discusses the conceptual treatment of disagreements and conflict in VTs in more detail.

diversity relates to diversity of opinion and how this affects creativity in GVTs, implying a research gap on how differences of opinion are handled through disagreements.

Two of the most significant challenges relating to hidden discord in global teams are knowledge sharing and social order which are covered in the following sections.

Knowledge sharing

Crossing margins is disruptive and requires additional efforts and resources to share knowledge: to minimise the constant boundary-crossing virtual teams work well when the task has the possibility for individualised work practices, rather than constant direction and collaboration (Donnelly and Proctor-Thomson, 2015). The subsequent imbalance caused by too many individualised working practices can create tensions in virtual teams to appear; boundary crossing is an especially important feature of virtual teams in communicating knowledge and this is difficult to sustain when work is bound in individuals rather than groups (Yeow, 2014). Over time, episodes of cooperation produce clusters of boundary objects that promote knowledge exchange (Rehm and Goel, 2015). In some cases, such boundary objects can be withheld or ignored, particularly when the transmitting part assumes that the remote party already has access (Fang et al, 2021), implying the creation of a misunderstanding or nonunderstanding.

Whilst it is clear that knowledge sharing networks differ between cultures, these differences have not yet been researched with respect to global intercultural work (Hinds et al, 2011). The existing studies have found contradictory evidence for 'best practice' in knowledge sharing: Cummings and Cross (2003) found relying on a handful of individuals to funnel information was rated negatively by supervisors, whilst Hinds and McGrath (2006) found that funnelling knowledge through a small subset of individuals was associated with smooth coordination. To date such studies have not accounted for cultural differences and preferences in communication style, instead assuming that people in different contexts establish organisational ties for the same reasons.

Empirical studies have shown that global virtual teams can lack common learning experiences and find it difficult to make knowledge visible at remote sites (Baba et al, 2004). Different types of knowledge are more salient in some cultures than others; for instance, 'Asian' cultures are more capable of incorporating contextual information than Americans according to Maddux and Yuki's (2006) experimental study. In terms of practice, collaboration mechanisms, such as teamwork, differ across and between cultures and require reconciling for effective knowledge sharing (Gibson and Zellmer-Bruhn, 2001).

Tangentially related to knowledge sharing is organisational sensemaking (Weick, 1995) which can be challenging due to the conditions in GVTs. Sensemaking is an important process, particularly for planning and resource deployment because organisations can gain an understanding of the unique contextual issues within and surrounding the organization, and continuously monitor and reinterpret these issues (Tan et al, 2020). This process is influenced by a sensemaking structure, which consists of a technical structure (existing knowledge, mental models and experience related to the topic and perceived influence) and a social structure (the behavioral norms and relational ties surrounding sensemaking) (Tan et al, 2020; Kamoche and Cunha, 2001).

Social order and group identity

Many issues in GVTs relate to the formation of ground rules, norms of cooperation, knowledge of which types of relationships between colleagues are expected, and what is considered acceptable behaviour in a group. The issues underlie difficulties in leadership, knowledge sharing, trust and even creativity. A useful concept in this regard is a group's 'social order', a term used by Goffman (1971) which concerns routines associated with ground rules. This concept particularly suits virtual teams as the lack of intrinsic unity in these teams means that members often have differing norms of group behaviour which need to be adapted to others. In focusing on routines, social order relates to both the foundations of teams and their actions; the social order influences behaviour whilst being influencing by behaviour itself (Yan and Panteli, 2011). Social order often derives initially from the team members rather than central imposition.

Group identity can be an important aspect of social order, being an immediate expression of collective alignment and a strong group identity indicates a team have formed a coherent and psychologically safe social order. Group identity is an often-ignored aspect of virtual teams, partly as it is a complex social phenomenon, a social-psychological process (Hallier and Baralou, 2010). Research on belonging through technology has found that virtual teams which formed effective team and role identities had benefits for both their wellbeing and their productivity (Hafermalz and Riemer, 2021), which can be boosted from using social technologies at work such as web-conferencing tools (Hacker et al, 2020) or creating an artefact as a group (Asatiani et al, 2021). Group identity is influenced by and influences how a team is managed. Group identity can be based on identifying with a group or person (such as one's peers or a director), or with a social category such as the host organisation or the employees' profession (Yan and Panteli, 2011; Hallier and Baralou, 2010). It has been observed that the work identity chosen is often the one which most boosts individual self-esteem (Yan and Panteli, 2011). Conscious identification influences behaviour in reflecting 'who I am' (Hallier and Baralou, 2010); members of a well-regarded virtual team support social order through adapting their self-identity in line with the group identity.

Group identity and social orders are inherently dynamic. When dilemmas are encountered by virtual team members and leaders, workers address them through cognitive processes such as integrating (for example by implementing regular meetings), differentiating, and polarising (for instance through emphasising cultural differences). How these issues are responded to shapes much of the team environment and impacts upon group identity and the strength of ties between team members; success in defining boundaries can help build strong cohesive ties and team stability (Yeow, 2014).

This is part of a wider dynamic of social order formation in which workers across national boundaries adapt and adjust over time as they collaborate. There are a number of possible triggers to adaptation including when cultural responses to status differences are incompatible (Levina and Vaast, 2008). Adaptation is aided by global experience, open-mindedness, and effective sense-making processes; when utilised adaptation can help in resolving institutional incompatibilities due to ignorance of the other culture(s) (Orr and Scott, 2008). Adaptation can be unhelpful, for instance, in some Chinese-USA collaborations Americans attempt to adapt to the importance of personal networks in China (*guanxi*) but shift their behaviour in ways which are viewed as disingenuous (Hinds et al, 2011). This itself can be seen as part of the adaptation process however, where misunderstandings and disagreements are often followed by sense making and then adaption, in a slow series of 'evolutionary' steps. Adaptive practices that survive are then based on the contingencies at that time and place (Sidhu and Volberda, 2011).

Formation of a strong social order in a diverse GVT can lead to hybrid team cultures and stronger group identification; this process occurs more easily between similar cultures (Benet-Martínez et al, 2002). Earley and Mosakowski's (2000) study found that a hybrid team culture helped performance and was formed through common rules, high expectations, good communication, and cross-cultural empathy. Hybridity only occurs when a group identity can be formed (Orlikowski, 2002; Earley and Mosakowski, 2000) and a common identity itself provides teams with a common vocabulary and framework for making sense of experiences (Orlikowski, 2002). This suggests that together a shared identity, aligned interests and congruent practices can result in fruitful cross-national collaboration and fewer coordination costs. As related to misunderstandings and disagreements, navigating incidents of hidden discord require the ability to avoid blaming behaviours and to compromise. Hybridity and adaptive practices likely imply cross-cultural compromise is possible and blame can be avoided.

One phenomenon which can work against developing an overall team identity is the formation of sub-groups. Subgroups often impact negatively on team effectiveness (Jarman, 2005) and national differences are associated with sub-group formation (O'Leary and Mortensen, 2010). Polzer et al

(2006) find that sub-groups are more likely to form when the number of geographical divisions is low and when each group has a homogeneous in terms of nationality. Whether or not a team converge upon an overall group identity is not necessarily split as a 'good tendency' and a 'bad tendency', as convergence might be impractical, unhelpfully centralise power and silence different approaches which could otherwise lead to innovation (Leung et al, 2005). Whilst a strong social order does provide some guarantee of stability, developing a shared understanding across the team is ultimately a more important priority (Baba et al, 2004).

Moderating conditions for GVTs

The challenges and opportunities of working in global virtual teams are often a result of a small number of moderating factors. Specifically, dispersal, power differentials, cultural diversity, ICTs, and language asymmetries are each constitutive of GVTs and can trigger flash points in team working. The first three of these will be explored in detail below, with ICTs and language asymmetries explored in more detail in Chapter 3.

Degree of dispersal

Dispersal, covered above as a core characteristic of virtual teams and an axis which defines types of virtual teams, will be briefly explored here as a particular issue moderating the degree of communication and relationship challenges experienced in GVTs.

Virtual teams are shown in studies to be less productive than collocated teams (Henderson, 2008). The degree of virtuality appears to affect the overall performance of teams negatively: the more virtual a team is the larger decrease in performance in terms of task completion (Schweitzer and Duxbury, 2010). Despite this, two other traditional performance indicators – professional development and intention for future collaboration – are not significantly affected by virtuality (Schweitzer and Duxbury, 2010). GVTs are the most dispersed of all types of virtual team and in cases of extreme dispersal, cultural issues, and practical issues (such as arranging meeting times) are at their most challenging.

The main feature of teams operating globally is that the more virtual a team is, the larger the decrease in the quality of team interactions (Schweitzer and Duxbury, 2010). Much of this lack of quality interactions is related to the difficulties of presenting the self through ICTs. One of the key concepts used in virtual team research is *presence* which refers to "*the state of being before, in front of, or in the same place with a person or thing*" (Simpson, 1989). This state is being present is more difficult to achieve in virtual teams due to the significant time spent as 'disembodied'. Interpersonal affect is generally reduced by attenuated social cues (Altschuller and Benbunan-Fich, 2013). In line

with this, other studies showed that more presence leads to better quality task performance and psychological connection (Wrench and Punyanunt-Carter, 2007).

Shen et al's (2014) study of time in virtual teams found that working across time zones affected many aspects of work. Positively it could functionally extend the working day so that tasks could be carried out throughout the day. On the negative side, this meant that often teams would have longer waiting times for synchronous work; these periods can be unproductive and make some tasks difficult to complete. Also, team members need to make sense of messages originating in different time zones and address concerns that are either past or future for each side (Shen et al, 2014). Working across time zones can create many parallel processes which can cumulate to increase information overload and negatively affect information reciprocity and exchange (Shen et al, 2014). Concepts of time (and deadlines) are also formed in specific cultural contexts and can be conceptualised as cyclical rather than linear which changes working practices. In these ways dispersal can create challenges.

Power differentials

Sturm and Antonokis's (2015) review article of power in management studies define power as "the discretion and the means to asymmetrically enforce one's will over others", so that a powerful agent is one who can exogenously affect his or her environment or others at will. What one wills has to do with regulating or controlling aspects of one's environment, including others (Sturm and Antonokis, 2015), discretion refers to the latitude of action available to power holders others (Sturm and Antonokis, 2015) whilst the means can include charisma, incentives, expertise, punishment, and other related properties others (Sturm and Antonokis, 2015). The possession of power in an organisation also moderates cognition, affect, and behaviour of those with power. In terms of affect, high-power individuals feel more distant from others (Magee and Smith, 2013), whilst behaviour and cognition are affected in various ways including promotes individuating and ease of information retrieval (Weick and Guinote, 2008), increasing perception of confidence (Briñol et al, 2007) and increases optimism and risk-taking behaviour (Anderson and Galinsky, 2006).

Differences in where power is exercised can have a huge effect on virtual collaborations, from choosing meeting times to choosing the *lingua franca* of an organisation. Team relations are highly sensitive to power relations (Tenzer and Pudelko, 2017). As shown in the following chapter, ICT has cultural elements which can lead to a disadvantageous situation for some groups who are not used to collaborating in such ways. As with much of the literature on power in GVTs, this is not well understood and Panteli and Chiasson (2008) called for further research on how power is produced,

mediated, and realised through ICT systems to provide a critical understanding of how enablers and constraints are produced in virtual teams.

Whilst understudied, power differences in virtual teams are a rich source of discontent. Studies such as Hinds et al (2014) and Tenzer and Pudelko (2017) have focused specifically on language and power. These studies have found that language proficiency is a source of power but it also moderates other sources of power, such as expert recognition (Tenzer and Pudelko, 2017). Team members with poor linguistic skill in the *lingua franca* can suffer in knowledge exchange and decision making and divert their energies to shadow structures of co-speakers (Tenzer and Pudelko, 2017). Exercise of power in global virtual teams can also provide the triggers for linguistic schisms in teams, creating subgroups and affecting team identification (Hinds et al, 2014). This issue is explored further in Chapter 3 on language in GVTs.

Cultural friction

A commonly explored creativity and social order issue in studies of virtual teams is cultural diversity and the so-called 'distance' between cultural social practices among team members. Cultural friction may be a more apt term than cultural distance in describing what happens when people of differing cultures interact in VT (Lockwood, 2011) whilst avoiding the assumption that cultures exist on a single comparable and measurable scale. As one of the most obvious dissimilarities affecting group behaviour, cultural diversity affects the take up of collective team identities due to national culture differences (Hoch and Kozlowski, 2014). In contrast to culturally homogeneous teams, or teams where cultures and ways of working are familiar, the 'natural sense' of how to work together (Yan and Panteli, 2011) may not be present in extremely diverse teams and these difficulties can split the group. Normative fit (the extent to which ones' goals, values and behaviours fit the teams) may be difficult to achieve in culturally diverse virtual teams. National cultural diversity is associated with challenges in performance, organisational climate, work processes, social identity, and structure (Hinds et al, 2011) and the consequences for cultural misalignment between HQ and subsidiaries in MNC includes a decline in organisational commitment for subsidiary staff (Minbaeva et al, 2018). Yet besides increasing task conflict and decreasing social integration, cultural diversity has benefits in improving creativity and satisfaction in some global teams (Stahl et al, 2010).

In part because of the intrinsic difficulties of studying culture, few reviews of virtual teams have addressed culture, besides as a type of diversity (Hinds et al, 2011). In Hinds, et al's (2011) review of global work from an intercultural lens, only 11 out of 38 empirical articles closely examined the role of national culture in global collaborations. In studies of GVTs, culture is usually taken to be cognitive, that is, consisting of beliefs, attitudes and values held by nations of people, which only

change over decades of evolution (Hofstede, 1980). This perspective holds culture to be 'software of the mind' and has allowed culture to be used as a tractable independent variable in organisation studies, useful in mapping 'national culture; along dimensions such as power distance, individualism, masculinity, uncertainty avoidance, long term orientation and indulgence (Hofstede, 2010).

As is shown in Research Gaps, however, Hofstede's perspective has a number of limitations in studying GVTs. First, culture is often dynamic within an entire cultural context, with national culture being dispersed unevenly by region, conurbation, profession, organisation, and social networks. As noted above, the challenges faced in virtual teams tend to be fluid, dynamic and unpredictable making perspectives on culture which emphasise national values of little practical valuable. This critique is expanded upon in the following Chapter under Research Gaps.

Second, the perspective that culture is cognitive is widely disputed, most strongly from a systems perspective such as Kitayama (2002) who treats culture as entwined with local context. According to the system view, personal values are not cultural values writ small. Nor are cultural values personal convictions writ large (Kitayama, 2002). This context, including systems of education, economy, legal regulations, and organisational practices play an important role in shaping behaviour. Context comprises multiple levels of institutions and networks which is another system above individual behaviour. By excluding behaviour from its definition Hofstede's notion of culture as values does not lend itself to an interaction-level analysis of global virtual teams. This is a particular challenge for cross-cultural work as: "Each person actively seeks to behave adaptively in the attendant cultural context, and in the process different persons develop their own unique set of response tendencies, cognitive orientations, emotional preparedness, and structures of goals and values" (Kitayama and Markus, 1999: 250-251). In such complex, dynamic situations, what occurs is not a clash of entities (Hofstede's 'cognitive cultures') but subtly acquired habits, skills, opinions, knowledge paradigms, ways of relating, which are as often unconscious as conscious, and are unique to individuals and teams, not following regular paths, even where patterns might exist.

Culture is of fundamental importance in GVTs, as both a foundational and a moderating factor. Culture gives predispositions to team members which may not be expressed (or easily expressible) but can make collaboration uncomfortable. Organisational structures provide one example of this. Different 'recipes' for possible organisational structures are institutionalised and designed to fit the national context (Whitley, 1990). In this way, culture gives affordances to different organisational forms, for instance a small family business may be more common in risk-taking cultures with strong familial social capital. Likewise, solutions to organisational problems are selected from a cultural template of responses, meaning that different solutions are offered to similar challenges across

contexts. When forming team roles in a multinational team, the clash of different types of management roles (which might be considered 'normal' locally) can be a potential source of conflict. Perhaps because of this potential for trouble, studies in international business generally associates cultural diversity with negative outcomes (Stahl and Tung, 2015).

Cultural context is a system of logic that influences which structures and practices are available (Chao and Moon, 2005). An example of how working practices interact is shown in the following. Perlow et al (2004) found four categories of system which mutually reinforced how work was taken up: the country itself, the company context, the reward system and helping behaviour. These overlapping layers differ by sector and are important to understand for fruitful international collaboration to occur. Theories such as structuration, neo-institutional theory, evolution theory and social order fit studies of GVTs which need to account for general cultural trends and practices simultaneously. Organisations are often analysed as equally sharing a culture rather than organisational culture being asymmetrically adopted (Asatiani et al, 2021; Jackson, 2011); it is necessary to be clear that organisational culture is also complex and not wholly adopted and embodied in each employee, and that such cultures can be adapted to cause less friction in inter-organisational encounters.

Summary

In this chapter, the literature on virtual teams has been reviewed, starting by defining virtual teams as team which typically feature a group with a common purpose, technologically enabled and geographically dispersed. Whilst the typology of virtual teams as differing according to relation to firm, continuity/discontinuity, and degree of dispersion, this thesis focuses on global virtual teams, the type of team with the greatest degree of dispersal. Focusing on global teams has shown a complex set of challenges, five of which were highlighted: leadership, developing trust and rapport, creativity. Knowledge sharing and social order These challenges were moderated in global teams by five factors, three of which were covered above (degree of dispersal, power differentials, and cultural friction). This study focuses upon the incidence of discord in global teams, and two further moderating factors will be introduced in the following chapter: computer mediated communication and language.

Chapter 3 Communications technology, language, and hidden discord in global virtual teams

Introduction

This chapter scopes the virtual teams and sociolinguistics literature on misunderstandings, conflicts, and disagreements. It begins with further examination of relevant conditions that may affect the dynamics of misunderstandings in GVTs: computer mediated communication and language asymmetries. These conditions are also relevant to GVTs in general yet are examined here in more detail as scholars in both the VT and sociolinguistics fields have related these conditions to hidden discord. Misunderstandings and disagreements will then be addressed as a resulting consequence for the linguistically diverse GVTs enabled by ICT communication. This section begins with a review of the concept of misunderstandings, before exploring definitions of misunderstandings, pathways towards understanding and misunderstanding, conflict, and disagreements, modulating disagreements and their effects, and possible factors influencing the occurrence of misunderstandings and disagreements in GVTs. The chapter ends with an overview of research gaps related to the doctorate topic.

Computer-mediated communication

By definition, communication is needed in order to develop understanding in any group because communication is "a process in which participants create and share information with one another in order to reach a shared understanding" (Rogers, 1986: 199). In GVTs, communication media are the only channels available which allow continuous communication despite distance and so are vital in developing understanding. For this reason, information communication technologies (ICTs) are necessary in virtual teams and account for one of the two key differences to conventional teams alongside dispersal (Schweitzer and Duxbury, 2010). The limited research on disagreements and communication medium has shown that disagreement differ by online or offline contexts, in part as group norms are established in different manners (Marra, 2012). Conflict appears to emerge more often in virtual teams than face-to-face teams (Son and Park, 2011) due to lack of in-person communication, geographical and time boundaries, and diversity in culture, background, and experiences (Wakefield et al, 2008).

This section attempts to answer how ICT affects communication and interactions in GVTs by focusing on theories of media richness of ICTs, synchronicity of ICTs, and perception of ICTs.

Media richness theory

Media richness theory (MRT) assumes that media differ by their level of richness, that is, the ability of information to change understanding within a time period (Daft and Lengel, 1986). This theory, which predates the internet, holds that media channels possess objective characteristics that determine the capacity to carry rich information (Carlson and Zmud, 1999). A media is rich if it can feedback instantly, allow use of multiple cues, natural language and tailoring to individuals (Sheer and Chen, 2004). MRT finds that face-to-face communications are the richest, whilst written text and numeric text are amongst the leanest media (Sheer and Chen, 2004); ICTs are a later addition to the theory and are considered to be relatively lean especially text based and asynchronous media such as email (Lee and Panteli, 2010).

MRT argues that managers select media on the basis of the match between the message and richness required for a task: an equivocal message, that is, one which could be interpreted in a range of ways, requires more media richness to be properly understood (Sheer and Chen, 2004). Given this, the theory holds that lean media is only suited to non-equivocal tasks and unsuited to messages that can be interpreted in a number of ways (Dennis et al, 2008). If an insufficiently rich media is used to carry an equivocal message, misinterpretations and ineffective communications are likely to occur (Carlson and Zmud, 1999). Cultural diversity influences preference for richer ICTs (Duranti and de Almeida, 2012), which may be because ICTs with greater representation of the self can make foreign nationals easier to understand, increase psychological safety and the potential for creative collaboration.

The success of virtual teams, despite their lack of access to very rich media channels, is one indicator that MRT central tenets are flawed (DeLuca and Valacich, 2006). Given that increased information richness should lead to improved task performance (Dennis et al, 2008), virtual teams should underperform in comparison to collocated teams. In addition, media selection is treated as a rational decision based on matching media to tasks and does not account for social context[5] (Lee and Panteli, 2010).

The link between communications medium and quality of communications in virtual teams has been established by several empirical studies. However richer ICTs do not always have a positive effect on team performance. Whilst some studies have assumed that richer representation of the self through

---

[5] More recent revisions of the theory have addressed critiques of the theory by first allowing for the possibility that media selection is not only an instrumental decision. For complex and negative messages, self-presentation and relational factors also influence the degree of richness of media used (Sheer and Chen, 2004).

technology must have a positive impact, other studies have found that rich ICTs such as video conferencing may actually be unhelpful to build trust (Altschuller and Benbunan-Fich, 2013). These findings imply that media selection and use is more complex than suggested by MRT.

Media synchronicity theory

Media synchronicity theory (MST) suggests that successful utilisation of a media channel occurs when the media used are suited to the underlying communication process (DeLuca and Valacich, 2006). MST holds that two central communication process are priorities when considering selection and use of media channels: conveyance of new information (information transmission) and convergence on shared meaning (information processing). Both processes are required to develop shared understanding and complete tasks in virtual teams (Dennis et al, 2008). Conveyance of information is needed for an information receiver to create and revise the mental model of a situation whilst convergence is needed to agree on the meaning of information and thereby reach a common understanding that is agreed upon (Dennis et al, 2008). Communication performance is therefore the desired outcome in MST, rather than task performance per se: communication performance is achieved when there is a good match between media capabilities and communication processes (in order to accomplish a task) (Dennis et al, 2008).

Rather than richness, MST uses synchronicity as the central tenet: synchronicity is the extent to which actors are able to move together at the same rate whilst using a medium (Dennis et al, 2008). Empirical studies have shown that asynchronous media is appropriate when conveying new information whilst media that supports synchronicity is useful for convergence purposes (DeLuca and Valacich, 2006). The staging of use for these media is important as different communication processes are needed at different stages of a project, for instance, a kick off meeting or wrap up meeting is highly likely to involve convergence processes (DeLuca and Valacich, 2006), whilst preparation for such meetings will require conveyance processes. This implies that the best medium is a combination of media that provides a set of capabilities to address a variety of situations (Dennis et al, 2008).

A number of media features affect the degree to which media supports synchronicity or not: transmission velocity (capacity for immediate feedback), parallelism (potential for concurrent information transmission), symbol sets (number of encodement methods possible such as visual or audio), rehearsibility (potential to rehearse a message) and reprocessability (potential to revisit and revise information received) (Dennis et al, 2008). The focus on features rather than media categories in MST is due to ICTs such as instant messaging platforms constantly changing (Dennis et al, 2008).

MST also recognises that media can be more or less synchronous depending on how they are used (Dennis et al, 2008), for instance, rapid email exchange has relatively high synchronicity.

The link between communications synchronicity and quality of communications has been established by several empirical studies. Studies using media synchronicity theory have found that media with low synchronicity (lean media such as email) are appropriate for complex tasks and new teams as, in these situations, conveyance of new information is a priority (DeLuca and Valacich, 2006). MST proposes that familiarity with tasks, colleagues and communications media makes high synchronicity less necessary (Dennis et al, 2008). Conversely, a new team or a team undergoing a misunderstanding or disagreement may use synchronous media to form a common understanding. Recent studies in this vein have also suggested that Information Systems can be designed to promote sensemaking (Seidel et al, 2018).

Whilst MST appears to be a useful theory of media use, studies have shown the importance of wider considerations to media synchronicity beyond its effect on communications processes. Lee and Panteli (2010) found that choosing technologies which allow synchronous interaction can surface underlying conflicts (Lee and Panteli, 2010). In cases of communication difficulties simultaneous interactions can feel unbearable and unsustainable, leading to a switch from synchronous communications (such as teleconferencing) to asynchronous written communication (such as email) (Lee and Panteli, 2010).

Whilst MST suggests a mix of media is preferable, there is likely to be a cognitive and emotional burden to interchanging between several communications mediums, which is significant for virtual teams given that such teams often switch between different ICTs (Yeow, 2014). This switching strain implies that a constantly shifting mix of media is difficult to achieve in practice and may result in discomfort and ultimately communication avoidance. In addition, convenience may be as important as conveyance or convergence as a communication priority (DeLuca and Valacich, 2006). The link between synchronicity and conflict and strain of mixing media both imply practical difficulties in matching media to specific communication processes that are not accounted for in the theory. More recently, Lee et al (2021) found one way to combat this strain was through the use of a communications array: a set of ICTs that can fulfil a variety of functions, utilised in appropriate contexts. Employing a communication array theory showed that matching multiple communication media and content with communication processes can promote successful cooperative/competitive relationships (Lee et al, 2021).

Media perceptions

Though ICTs are artefacts with functions, their features may be perceived differently. Indeed, both MRT and MST share the rational actor assumption that actors can easily shift medium depending on the logic of a particular task. Leonardi and Barley (2010) posited that technologies are objects separate from humans and self-contained yet are in continuous interaction and are fundamentally affected by this interaction. Interactions with ICTs therefore shape what humans can do in GVTs and who they can be (Paring et al., 2017). Yet interactions with ICT are not a perfect science and differ according to individuals, organisations, and cultural systems; culture plays a role in the design, adoption, and use of ICT, particularly in inter-cultural work (Warkentin et al, 2015).

In both MRT and MST, media channels are treated as though they have objective characteristics (DeLuca and Valacich, 2006). More widely, the functions of ICT are said to be designed to fit to minimise the communications needed to sustain an organisation (Ribes et al, 2013). However, in practice, ICTs are often adopted in a haphazard manner, without clear reference to media features or organisation needs because these features and needs are not clearly perceived. ICTs are interacted with by users with specific backgrounds, experiences, and relations all of which affect the perceptions of ICT and their use (Carlson and Zmud, 1999). Media richness and synchronicity are therefore to some degree socially constructed (Dennis et al, 2008).

Perceptions of media are accounted for in channel expansion theory, which holds that experience influences perceptions of ICT capabilities such as the capacity for richness (Carlson and Zmud, 1999). The perceived characteristics of a media channel vary by individual and organisation depending upon experience with the channel, the topic, the organisational context, and the co-participants in the communication (Carlson and Zmud, 1999). The capabilities of a media channel are also influenced by the impression of the media by colleagues (Carlson and Zmud, 1999). Empirical testing of this theory found that perceived characteristics of media are dynamic within individuals over time and depending on context (Carlson and Zmud, 1999).

A recent development in scholarship on technology is the focus on affordances (Gibson, 1977) of technology, including ICTs (Rice et al, 2007). Humans, organisations, and technology are assumed to be inter-dependent systems that shape each other through ongoing interaction. ICTs are a necessary part of this complex ensemble and provide affordances to organisations when these affordances are perceived by users (Orlikowski and Scott, 2008). Specific types of technological affordance are identifiable for virtual teams, including virtual collaboration using cycles of synchronous and asynchronous virtual interactions and transactive memory systems (Zammuto et al, 2007) such as file storage, yet these affordances are only leveraged when the organisational environment allows

this. Affordances arise in response to contextual stimuli: Choi et al's study on computers as an aid to transitive memory in teams (2010) showed that technology itself can act as a memory device in absence of close relations (Choi et al, 2010).

External events too affect technological affordances: the recent COVID-19 pandemic forced greater use of collaboration functions in existing communication technologies as well as the adoption of new tools (Waizenegger et al, 2020) and new ways of working (Aroles et al, 2021). These new uses of ICTs may help prevent misunderstandings by leveraging the technological affordance of team continuous dialogue and record keeping. In addition, some collaboration technologies which saw accelerated use during the pandemic such as web-conferencing tools (Hacker et al, 2020), facilitated encounters that could not have taken place otherwise due to their peculiar affordances. Hacker et al (2020) found use of web-conferencing tools such as Zoom during the pandemic afforded a new virtual togetherness, new shared and synchronous social activities and events, and meetings that could not have taken place otherwise, despite constraints such as an increased exposure of people's private living space. Some of these affordances will recede as the external event of a global pandemic eases yet their perceived characteristics of web-conferencing will be fundamentally shifted by the experience at that time.

It follows from this literature review that both the characteristics of ICTs, that is, their richness and synchronicity, and their context specific, perceived affordances, are relevant to communication in GVTs. Different theories have been developed to explain the choice of ICTs in GVT communications. MRT holds that sufficiently rich media channels are needed to change understandings in a group to complete tasks. MST similarly argues for the necessity to match media type with the underlying communications process so that synchronous media are used when a group needs to converge on a shared understanding. Channel expansion theory and affordances emphasise the importance of perceptions of ICTs so that maximum benefit can be taken using specific technologies to support the work process in each team. The three theories of richness, synchronicity and perceptions agree that ICTs affect communications and the potential for shared understanding. However, how ICTs might act as a condition which shapes misunderstanding and disagreement in GVTs has not yet been addressed in the literature despite theoretical and empirical research on ICTs and the development of shared understanding.

Language asymmetries in global virtual teams

Introduction

The final condition moderating challenges in global virtual teams in this literature review is language asymmetries. Hinds et al (2014) define language asymmetries in terms of proficiency: the differing

levels of language competence in the lingua franca across team members. Language in GVTs can be seen through a variety of lenses depending on disciplinary perspective. Linguistic anthropologists see language as a cultural resource that reproduces reality (Duranti, 1997), communications scholars view language as discourse for organising (Cooren et al, 2011), whilst organisation studies often conceptualise language as a communication system of shared meanings (Astley and Zammuto, 1992). Whilst language is a recognised aspect of 'psychic distance' (Johanson and Vahlne, 1977) linguistic distances have usually been subsumed by 'culture' in international business studies (Harzing and Pudelko, 2013). Despite the recent burgeoning of studies in the area, language-based diversity is a relatively understudied area within diversity management research (Kulkarni, 2015), geographically distributed teams research (Hinds et al, 2014), and international management and business research (Harzing et al, 2011) to the extent that language studies were once called the management orphan (Verrept, 2000).

The effects of language asymmetries in fluency have been explored to the extent that it is agreed "language matters" (Zander et al, 2011: 297). Despite language representing a long-standing research gap the consequences of language diversity for employees, teams and organisations are often drastic. Understanding the consequences of language differences has become critical in organisations today (Ghemawat, 2011; Selmer and Lauring, 2012). The known impacts of linguistic diversity identified in the fields related to GVTs are largely negative: impaired performance, coordination, and relationship development (Zander et al, 2011), inefficiency, (Neeley et al, 2012) increased costs and conflicts among headquarters and subsidiaries (Harzing et al, 2011), knowledge transfer difficulties, uncertainty, and loss of trust (Kulkarni, 2015; Hinds et al, 2014).

These impacts are not present in every linguistically diverse GVT and the effects occur usually indirectly, as well as more obvious additional time and cost effects. Even a relatively simple effect such as how language diversity affects knowledge transfer can manifest through a number of different pathways: in the ability to transmit or receive knowledge, the communication medium used for transfer, the feedback pathways, and the organisation's ability to distribute knowledge (Welch and Welch, 2008). Finding a configuration of individuals who can channel communication effectively to all team members is a practically difficult task in itself which is often unmanaged.

Yet in the context of sociolinguistics research, the impact of language is more subtle than culture as it does not appear to fundamentally affect the way people think and behave as culture can contrary to the Whorfian hypothesis. Studies of colour and cognition indicate that in the case of colour perception, language has a significant but not large effect on thought processes, in that it takes milliseconds longer to distinguish between colours for which there is no word in a language

(McWhorter, 2014). Whilst language does affect thought, the impact appears subtle and culture appears to shape language much more than the other way round (McWhorter, 2014).

This implies that multi-linguistic teams are not cognitive split by language into different groups; yet in an organisational context, language can affect task flow, emotions, toleration, and social identity, which are all hard to manage within GVTs. Due to the large ranges of permutations in a GVT, most of the literature on language in GVTs has addressed moderating factors for how language can come to affect team performance. The main sources of moderation are seen as configurations of *language proficiency*, the development of *linguistic tolerance*, and *management techniques* for language such as the institution of a *lingua franca*. The effects of language have been addressed mostly in terms of *social identity and language schisms*. These four topics will be addressed in turn in this chapter.

Language proficiencies

Linguistic diversity has been a growing area of research in the international management field. The issues caused by linguistic diversity in GVTs are variable by context, particularly dependant on the language configuration of a particular team. Research on language proficiency has been a particularly strong thrust in respect to GVTs. Linguistic proficiency appears to directly relate to misunderstandings as speakers and listeners are less accurate, and to disagreements. As discussed in the following section, mitigation of disagreements in global teams (for instance by shifting focus) could potentially be more difficult to enact. Indirectness requires linguistic subtlety and delicacy which are more difficult to achieve in second languages and when unsupported by body language (Toomaneejinda and Harding, 2018). This may suggest that disagreements in global teams tend to be more direct when they occur and so are potentially less polite and more aggravating.

There are various models for understanding language proficiency in GVTs, where mapping an organisation's language configuration includes several dimensions. Church-Morel and Bartel-Radic (2014) map language proficiency in terms of the number of languages present, proficiency in these languages, experience in using these languages in work contexts and attitudes towards using the languages (Church-Morel and Bartel-Radic, 2014). The various levels of this model of language proficiency demonstrate that fluency alone is insufficient to understand how language proficiency manifests in teams. As is explored below, proficiency has several aspects including social skills, speech pattern adaptation, language form, and connection to context.

Several scholars have examined interactions within GVTs and found that language skill is also partly a social competence which can mediate the impact of language on team members (Henderson, 2005). Staff in GVTs learn to recognise different speech rituals in work interactions or else face constant challenges in their communications. For instance, speech rituals vary by native language spoken.

These rituals affect how one performs everyday work rituals such as regular procedures (routines such as saying 'good morning'), and formalised routines with distinct rules (rituals such as meetings) (Henderson, 2005). Performance in speech rituals change the impression of who is a 'good' speaker. This suggests that language diversity stretches the socio-linguistic skills of teams (Henderson, 2005).

Unfamiliarity with speech patterns can make communication overly formal and emotional closeness difficult (Chen et al, 2006). The formality of communication is also influenced by gender and power differences, which can lead to overly polite communication (Chen et al, 2006). Lack of honest and direct communication can make emotional reactions to such encounters difficult to read. Conversely, when overly familiar communication patterns are used, for instance the Anglo-American habit of insisting on use of first names, this can lead some senior team members feeling disrespected by the familiarity and embarrassed (Henderson, 2005).

Proficiency can be further broken down by field and by language form. To use language effectively in a GVT requires interlocutors to have domain specific knowledge and vocabulary (Jenkins et al, 2011). In business settings, whilst spoken English has less need for accuracy, in writing native level competence is still needed where this may affect the corporate image (Ehrenreich, 2010). This follows findings in the wider linguistics literature which finds that for information exchange non-native speakers of English try to use more 'standard English' (Jenkins et al, 2011); it has not yet been explored what happens when less fluent speakers are unable to draw on standard English.

Poor language skills affect how employees connect to the work context around them (Klitmøller and Lauring, 2016). Conversely, communication intensity between sub-units in MNCs is increased when employees are more fluent in the language in which interunit communication takes place (Barner-Rasmussen and Björkman, 2005). Code-switching (that is, switching between languages) is also more common when under complex language configurations: weak English skills may lead to code switching (Vigier and Spencer-Oatey, 2018). It may be that tension around code switching grows when the group composition changes, where a large subgroup of non-native speakers who share the same language exists (Vigier and Spencer-Oatey, 2017). In these settings insisting upon a single language being spoken becomes less feasible, code-switching is more common and the minority native English speakers are incentivised to not insist upon only English being spoken (Vigier and Spencer-Oatey, 2017).

One of the main directions of studies in this area has been to explore how proficiency in languages affect the power and status of speakers (Paunova, 2017). For the individual in teams, language is both a skill and part of the career capital of an employee (Piekkari et al, 2005; Welch and Welch,

2008). Language fluency is a predictor of leadership status in multinational teams (Paunova, 2017). Because language is related to status, power imbalances very often follow from language proficiency imbalances (Vigier and Spencer-Oatey, 2018). The exercise of linguistic power in the organisational context can lead to accentuating existing negative emotional reactions to work (Hinds et al, 2014) essentially increasing the degree that one feels irritated, frustrated or ashamed about aspects of virtual work.

Language skills can conversely be seen as liberating and crucial in global work. Language proficiency and HR promotion of language learning has been shown to be associated with higher levels of commitment to global work within MNCs (Yamao and Sekiguchi, 2015). Vaish's (2005) paper found that at a social level English could be a language for decolonisation in India. Whilst English was used as a tool for linguistic discrimination during the colonial era, in India today there are examples of English being used in dual language schools for socially deprived pupils to give them access to the global economy through their English language skills (Vaish, 2005). Under Vaish's peripherist view, English in the context of global work has allowed groups who have historically been linguistically marginalised to have gained more equitable access to linguistic capital due to the market forces of globalisation (Vaish, 2005).

In summary, asymmetries in language competence are the most common configuration for GVTs and the effects of this situation are difficult to manage particularly when asymmetries are severe. Due to differences in language competence, native speakers can find it irritating to speak with non-natives (Janssens and Steyaert, 2014) whilst non-natives may feel frustrated about not being able to express themselves. When teams with a range of language competences (competence in vocabulary, speed of speech, accent, and number of mistakes) communicate, the experience can be emotionally trying (Henderson, 2005). Asymmetrical participation can lead to miscommunication when some participants contribute less to conversation.

Tolerance and communication avoidance

Language diversity is a particularly difficult concept to deal with for management theorists as it cannot be viewed in the way culture often is, that is, under the liberal assumption that 'diversity is good' (Ives, 2006). Language diversity goes against one of the basic preoccupations of management which is arranging effective communication. At least *prima face*, linguistic diversity makes communication more difficult.

Studies of GVTs have shown that language diversity can cause strain which needs to be managed by team members. Hinds et al (2014) find that language differences lead to virtual team members making use of emotional regulation: for instance, team members avoid entering potentially

embarrassing situations or try to alter the situation to play to their linguistic strengths. That is, situation selection, situation modification, reappraisal, experience regulation and display regulation. A more careful attitude towards emotions and reactions can create a greater level of 'psychic distance' than would usually be experienced face-to-face with native speakers, and consequently a lack of empathy (Bauman, 1989).

However, this emotional distance is not present in every multilingual virtual team and in fact what characterises many linguistically diverse teams, whether online or offline, is tolerance for language difference expressed through accommodation (Henderson, 2005). Non-native speakers use accommodation strategies to adjust their language depending on the situation and interlocutors including code switching. Counterintuitively, native English speakers are seen as more difficult to understand than non-native speakers (Sweeney and Zhu, 2010; Charles and Marschan-Piekkari, 2002). The benefits of simplifying linguistic expressions may be a blind spot for native English speakers, particularly when native English speakers are monolingual. Whilst native speakers believe they take steps to accommodate non-native speakers by avoiding idiomatic expressions and colloquialisms (Rogerson-Revell, 2007) further training in intercultural communication skills may be necessary for native speakers to avert communication issues and increase their accommodation of linguistic difference.

As shown in the section above, speech rituals differ between linguistic groups (Henderson, 2005) yet speech rituals are likely to become smoother over time as teams gradually become used to differences and begin adapting to one another, forming a unique social order. In general the influence of language diversity on GVTs is moderated by the duration, size, and dispersal of teams rather than diversity per se (Stahl et al, 2010). This is because as teams with language asymmetries work together for longer, their tolerance and acceptance of poor language proficiency grows.

A central premise in sociolinguistics is that, now that English is the global *lingua franca,* speakers are tolerant of linguistic imperfection and seek agreement despite cultural difference (Kappa, 2016). This assumption is argued against in recent work in sociolinguistics from a pragmatics perspective. Kappa in her critical study (2016) and House (2008, 1999) find that much of the appearance of consensus in English as Lingua Franca (ELF) interactions is in fact avoidance of nonunderstanding and misunderstandings: speakers do not expand on their motivations and assumptions which would highlight differences, yet not being explicit about difference raises the prospect of misunderstandings (and perhaps disagreements). Because of this, misunderstandings (and the avoidance of misunderstanding) appear to be a core component of intercultural dialogue in any ELF setting. In addition, as much of the sociolinguistics research is not based on work teams or other

conditions in which interlocutors fight for status, many of the cooperative assumptions for ELF derived from studies in private setting may be less applicable.

The pervasiveness of consensus and tolerance in English as *lingua franca* interactions is implicitly challenged by the phenomenon of disagreements. Whilst studies such as Alzahrani (2020) show that disagreements are common, in ELF contexts participants tend to mitigate disagreements. Disagreement, especially at work, is so common in ELF interactions that it could be said to be inevitable yet since participants are required to maintain working rapport these occurrences rarely escalate to conflicts (Alzahrani, 2020). In multi-lingual business interactions, expressing disagreement appropriately is important and requires strong communication (rather than purely linguistic) skills (Alzahrani, 2020). Recent work in business rather than academic settings has shown indirect disagreement is more common than direct disagreement; the preference for mitigated disagreement implies the importance of maintaining rapport and group atmosphere in organisational settings (Alzahrani, 2020). Mitigation of disagreements could be mistakenly labelled as tolerance.

Finally, whilst global business English exists in a postcolonial world, English as a *lingua franca* developed primarily through imperial interactions. These interactions give English a symbolic colonial residue which shapes attitudes to European languages within and outside of Europe, imbuing English and other European languages with status and power. In the first years of contact between Britain (as an imperial power) and non-European Others, the situation resembled what Mary Louise Pratt has termed the contact[6] zone (Pratt, 1991). The contact zone refers to “social spaces where cultures meet, clash, and grapple with each other, often in contexts of highly asymmetrical relations of power, such as colonialism, slavery, or their aftermaths as they are lived out in many parts of the world today” (Pratt, 1991: 33). Pratt’s theory suggests that even in settings where languages are being spoken freely and shaped in a new way, the power and cultural backgrounds of the individuals involved has a decisive influence on how languages are dealt with in social settings. However, where languages are spoken more freely, tolerance of linguistic diversity is more likely.

The literature in this area suggests that the longer-term benefits of linguistic diversity such as tolerance often arise after the initial strain of working across languages has been overcome (Henderson, 2005). After this period, tolerance and mutual respect arise where interlocutors engage

---

[6] The idea of ‘contact’ is borrowed from linguistics, where the phrase “contact language” indicates an improvised language that develops among speakers of different tongues (Chang, 2014).

in sophisticated accommodation strategies to avoid miscommunication. This phenomenon is particularly associated with groups with good English proficiency who are able to code-switch when necessary. This research theme has been developed in the sociolinguistics field and its applicability to GVTs is unclear. In addition, the cooperative assumption has been reframed as avoidance of conflict in recent years (Alzahrani, 2020; Kappa, 2016; House, 2008; House, 1999), and Pratt's theory of the contact zone implies that issues of power need to be accounted for in any multi-lingual setting.

Management of language diversity

The previous two sections have shown that the degree of difference in language proficiency and in the extent to which language differences are accommodated by interlocutors have a significant effect on multilingual teams. Until recently how organisations cope with such linguistic issues was "largely absent from the literature" (Maclean, 2006: 1377), with little known about which language management practices are most effective (Church-Morel and Bartel-Radic, 2014). Heeding calls by Harzing et al (2011) and Peltokorpi and Vaara (2012), studies have begun to address this gap, addressing communication avoidance (Lauring and Klitmøller, 2015), subgroup dynamics (Hinds et al, 2014), media richness (Klitmøller and Lauring, 2013) and emotions (Neeley et al, 2012). This section discusses this research on the effects of language mandating on managing language asymmetries and potential implications on misunderstandings and disagreements.

Harzing et al (2011) identified three types of language diversity solution in global business: informal day-to-day solutions, bridge individuals, and structural solutions. Whilst informal solutions were the most commonly used (Harzing et al, 2011) the majority of literature has focused on structural solutions (e.g. Heikkilä and Smale, 2011). A structural solution is a formal policy addressing an aspect of language diversity. Such policies include but are not limited to assigning a *lingua franca* which is the only permissible language (Janssens and Steyaert, 2014; Fredricksson et al, 2006; Feely and Harzing, 2003); functional multilingualism where a several languages are used without mandating (Janssens and Steyaert, 2014; Feely and Harzing, 2003), and; *multilingual franca* where mixed languages and mixed utterances are used to facilitate understanding (Janssens and Steyaert, 2014). Other solutions include drawing on external language resources, language training, use of language nodes/bilingual staff (including assigning expatriate staff), machine translation, and controlling language so only a limited vocabulary is used (Feely and Harzing, 2003).

Selection and application of language diversity solutions are important: when there is alignment between the language configuration (for instance, sufficient fluency in English and receptiveness towards English at work) and language management policies many of the negative emotional

reactions can be avoided (Church-Morel and Bartel-Radic, 2014). Language policies can very specific, for instance, some businesses have put in place language guidelines to virtual communications for email, texting, or video conferencing to avoid misinterpretations (Brannen et al, 2014). At a team level such stringent, formal language policies are less necessary than for MNCs though teams are recommended to institute a set of rules and standards for language practice once virtual teams form (Pazos, 2012; Vigier and Spencer-Oatey, 2018). Rules here are the necessary practices, routines, and procedures to both govern dynamics and reach project aims (Vigier and Spencer-Oatey, 2018).

The most common language policy is application of a *lingua franca*. *Lingua francas* vary from place and time being a language that can cut across cultural and national boundaries. The first *lingua francas* were trade languages such as Swahili, later contact languages developed between imperial powers and natives (Pratt, 1991), and most recently international languages were established such as English and French, both a legacy of colonialism. The idea of establishing a *lingua franca* across a multinational organisation is now commonplace: the vast majority of multi-national corporations from continental Europe (77%) and Anglophone countries (83%) have a defined corporate language, according to Harzing and Pudelko's (2013) study.

Whilst less common, some postcolonialist perspectives suggest that policies such as *multilingual franca* could be liberating. For instance, Homi Bhabha's notion of 'hybridity' developed Edward Said's analysis of a binary system of dominators and dominated into a 'third space' which stressed interactions which could ultimately liberate rather than only structure behaviour (Kikuchi, 2004: xvi). The idea of hybridity allows for the possibility of marginal practices: practices which lie at the edge of accepted paradigms and are not dominated by them (Chang, 2014). Allowing a *multilingual franca* goes against the grain in global business studies of prioritising efficiency in communication above other priorities. Open language policies may in fact make communication more efficient given that communication avoidance is much more common for non-native English speakers when they must use English (Lauring and Klitmøller, 2015).

Language policies have been studied more extensively in recent years with most focusing upon language mandating. Such research has found the benefits of loose linguistic mandating, with strict application of *lingua franca* disadvantaging staff with poor language proficiency and undermining tolerance for linguistic differences (Lauring and Klitmøller, 2015; Neeley et al, 2012; Kulkarni, 2015). Studies which take a sociolinguistic perspective have found more support for policies which allow for expression of native languages alongside common languages (Henderson, 2005). However, the effects of policies allowing linguistic diversity are unclear, particularly in GVT environments with low

levels of empathy for team members with poor language proficiency (Vigier and Spencer-Oatey, 2018; Kulkarni, 2015).

Language and identity

The final language research theme addressed here concerns linguistic identity in GVTs. Identity at work relates to how individuals define themselves in organisational life (Bordia and Bordia, 2015; Yan and Panteli, 2011). Linguistic identity is entwined with wider identities. For instance, whilst there is a clear difference between one's identity as a German speaker and a cultural identity as a German, language relates to culture and social worlds in a direct way. For instance a language's vocabulary or forms of address can highlight the existence of concepts and relations that are only present in the minds of speakers from certain language groups (McWhorter, 2014). This view is well established in several fields and follows sociologists such as Pierre Bourdieu, for whom language can be seen as an index to social relations, processes, and developments (Blommaert, 2015).

The multifaceted effects of language are in part due to the omnipresence of language in team interactions: unlike culture, linguistic issues are persistently salient in all GVT communications (Hinds et al, 2014). As a result, 'language' is often perceived by practitioners as more responsible for collaboration problems than 'culture'. In 44 interviews with managers at eight MNCs, 42 managers indicated that language was a barrier to in HQ-subsidiary relations, whilst just over 50% of interviewees mentioned culture as a barrier (Harzing et al, 2011). Whilst the conceptual separation of language from culture is questionable, it is significant that practitioners are highly aware of language issues in GVTs.

One reason that GVT members are aware of the salience of linguistics on organisational processes is the influence that language has on socialisation (Henderson, 2005) and the development of strong relationships (Zander et al, 2011). Forming good relationships is a challenge for multi-lingual teams as better relationships generally lead to stronger teams and make goal achievement more likely (Vigier and Spencer-Oatey, 2017). Confusion, suspicion, and friction can all result from unmanaged language problems (Feely and Harzing, 2003). Given that in general virtual teams find rapport difficult to build (Gilson et al, 2015), language diversity in GVTs is likely to add to the difficulties of socialisation if language sub-groups exist.

Whilst there is little research on linguistic identity in the GVTs literature (Bordia and Bordia, 2015) Lauring's (2008) study based on social identity theory has shown that linguistic identity is an emergent identity which forms in response to external stimulus. Given this, strictly pursuing rational consistency in language through a *lingua franca* can be the cause of fissures in emotional disconnection from the overall group identity in GVTs (Hinds et al, 2014; Fredriksson et al, 2006) and

the disproportionate power a *lingua franca* can give to the dominant linguistic group within an organisation (Hinds et al, 2014). For these reasons, instituting an English language policy is often intended to increase efficiency and coordination but can spawn emotions and behaviours that erode efficiency and collaboration (Neeley et al, 2012).

Research on subgroup formation is long-standing in global teams studies, with seminal work such as Polzer et al (2006) exploring how collocated subgroups in distributed teams can form geographic faultlines which reduces trust and increases the chance of conflict occurring. Whilst geographical subgroups are well established, the types of language subgroups which can form in GVTs is a new topic and the findings are unclear. The majority of studies focus on national language sub-groups such as German speakers (Hinds et al, 2014). The international business literature remains imprecise on the extent to which speaking a non-native language disconnects employees from their national or situational context however, and the circumstances when language sub-groups form around national boundaries are unclear (Zander et al, 2011). A recent study by Vigier and Spencer-Oatey (2018) suggests that sub-groups can also form around language fluency, for instance a group forming perceive themselves to have poor English relative to other team members. These researchers call for further research into language fluency in *lingua franca* contexts (Vigier and Spencer-Oatey, 2018). Recent research suggests it may be more helpful to suggest that potential social identities exist in any GVT, and potential cleavages could be by location, culture, language diversity (Hinds et al, 2014) and language proficiency (Vigier and Spencer-Oatey, 2018), but these cleavages are only activated when triggered by an event such as a power struggle. This implies that sub-groups in GVTs are liminal, that several potential group cleavages exist around language and that boundaries are often latent until triggered by events.

Misunderstandings and disagreements in GVTs

Introduction

Whilst there have been studies of related issues such as conflict (Vigier and Spencer-Oatey, 2018; Brannen and Thomas, 2010; Hong, 2010; Lee and Panteli, 2010; Hallier and Baralou, 2010; Kankanhalli et al, 2006; Dubé and Paré, 2001; Mortensen and Hinds, 2001), communication breakdown (Daim et al, 2012; Lockwood, 2011; Bjørn and Ngwenyama, 2009) and reaching understanding in GVTs (Robles, 2017; Paul et al, 2018; Dennis et al, 2008; Baba et al, 2004), the concepts of misunderstandings and disagreements have been rarely deployed or studied in the GVTs literature or management literature in general, being more common in sociolinguistics where conversation analysis is a common methodology (Avison and Banks, 2008).

On misunderstandings, this paucity of research is perhaps surprising given that computer mediated communication appears to be fertile ground for misunderstandings, particularly for teams with language asymmetries. Misunderstandings are of particular interest for this study rather than other forms of miscommunication for several reasons. First, because, whilst there have been various studies in the virtual team field on communication breakdown (Bjørn and Ngwenyama, 2009), conflict (Vigier and Spencer-Oatey, 2018) and knowledge transfer (Welch and Welch, 2008), there is a distinct gap on studies of misunderstandings in the virtual team field. This is of concern given that GVTs may have factors to lead to more serious misunderstandings, particularly given that the one research paper on misunderstandings in global teams has shown that online misunderstandings take longer and more effort to resolve, requiring engagement, commitment and buy-in (Avison and Banks, 2008).

Second, a misunderstanding is a relatively serious occurrence in comparison to phenomena such as nonunderstandings because, until they are made aware that a misunderstanding has occurred, interlocutors act as if their misunderstanding is correct. There is reason to believe from the ICT mediation literature that the length of time a misunderstanding endures in in a GVT will be longer than collocated teams (Pietikäinen, 2018). The vast majority of GVT communication uses ICTs with varying degrees of richness, and a mix of synchronous and asynchronous tools. When using asynchronous ICTs, MST predicts shared understanding is less likely to be formed (Dennis et al, 2008; DeLuca and Valacich, 2006). This implies a misunderstanding is less likely to be noticed using CMC such as email. Further, it would be difficult to repair a misunderstanding using asynchronous tools because conversational checking of understanding requires rapid communication. This means in GVTs which rely on text-based communication there are more likely to be unrecognised misunderstandings, which are one of the most serious forms of miscommunication, in GVTs than in co-located teams.

The second concept, disagreements, emerged as topic of interest in the analysis phase in this thesis. Whilst CMC could be expected to produce misunderstandings in global team, disagreements when remote could also be expected to have different pathways when using CMC than when face-to-face. Studies of face-to-face teams have shown that open disagreements are a frequent occurrence, and many interpersonal tactics are used to safely enter and process disagreements, using politeness, eye contact, body shifts, eye rolling and other methods to indirectly oppose another viewpoint. It is to be expected that such methods either work more poorly or are ineffective when remote, and it is there is gap in the field to understand the different pathways and types of disagreements in global teams.

Second, as is shown in this chapter, there is conceptual confusion in the virtual teams literature over conflicts and disagreements. Where conflicts have been studied, the term is often interchangeable with disagreements and the two terms have been erroneously used as synonyms. As shown in the pragmatics literature, disagreements can evolve into disagreements where participants are impolite or entrenched in a position, but more often, a disagreement is a mild occurrence, used to form a compromise position which engages the creativity of a team. Further, conflicts may also arise from misunderstandings; conflicts are not solely a matter of disagreements. Primary research on this type of discord is needed for further conceptual clarity.

Finally, both disagreements and misunderstandings are more discrete than many other miscommunications: each disagreement and misunderstanding can be understood as having boundaries and so are often modelled as separate *events* with specific causes, pathways, and conclusions in comparison to 'communication breakdown', for instance. This makes disagreements and misunderstandings a both amenable to study and possible to transfer learning to other domains.

The following section opens with a review of literature on definitions of misunderstanding and the pathways of misunderstandings is seen in the sociolinguistic literature. This is followed by reviewing disagreements in virtual teams, whilst bringing through insights from the sociolinguistics literature, particularly on the topics of conflict and disagreement, modulating disagreements and the effects of disagreements. The section ends with a general discussion of the conditions that literature in the sociolinguistics field and virtual teams field suggest may generate hidden discord in global teams: mode of communication, language differences, asymmetrical power, interpersonal relationships, speaker egocentricity and how disagreements can be framed.

Misunderstandings

Whilst misunderstandings are a common topic in sociolinguistics and discourse analysis (Weigand, 1999), misunderstandings are understood differently depending on the approach and disciplinary background of researchers (Robles, 2017). The focus of studies on misunderstandings is wide-ranging. Misunderstandings have been seen as a result of knowledge differences, cognitive differences, or in terms of the pragmatic effect using a symbolic interactionist approach (Robles, 2017). In part this diversity is due to the multi-disciplinary approach of linguistics which tends to add complexity to phenomena that are on the surface simple, and to avoid reductionism (Mustajoki, 2012). This approach contrasts with how scholars in the management field have usually explored the effects of culture and language difference when using Hofstede's model of culture differences (Hinds et al, 2011).

Since the 1970s, linguistics scholarship has usually assumed that the default tendency in conversation is towards mutual understanding; because of this inclination, understanding is not usually signalled by interlocutors (Mauranen, 2005). According to Bavelas et al's (2017) approach, mutual understanding is achieved on a continuous basis through *calibration* (Bavelas et al, 2017) which is a specific process for understanding new knowledge. In this process, when new information is received, the hearer responds and then the speaker provides evidence of understanding. This is a continuous, quick, and efficient process and is almost omnipresent (Bavelas et al, 2017). Under this model, mutual understanding is usually a moment by moment, highly interactive process. In their analysis, calibration was followed in 97 percent of conversations undergoing conversation analysis which implies that in conventional face-to-face interactions mutual understanding is far more common than misunderstanding.

When calibration does fail, a miscommunication may occur. A miscommunication follows whenever the recipient understands a message in a different way than intended by the speaker (Mustajoki, 2012). Because of the multitude of pathways in which a miscommunication can take place there is a lack of consistency in the use of terms for how communication can go wrong (Kaur, 2011). Miscommunication is therefore a conceptually loaded term, covering misunderstandings, nonunderstandings, communication breakdown, misconception, mishearing, misperception, and communication disorder (Mustajoki, 2012).

The definition of misunderstanding used in this thesis is "a form of understanding which Is *partially or totally deviant* from what the speaker intended to communicate" (Weigand, 1999: 769 [emphasis in original]). Given this definition, a misunderstanding is a *way* of understanding a speaker's utterance, not just the polar opposite of comprehension (Bazzanella and Damiano, 1999). A misunderstanding is therefore different to a nonunderstanding: in a nonunderstanding the hearer is aware that they do not grasp the speaker's meaning, whilst in a misunderstanding the hearer is unaware their understanding does not match the speaker's meaning. Because the hearer and speaker's understandings do not match, a misunderstanding is more serious than a nonunderstanding as the hearer acts as though they understand what the speaker has said (Pietikäinen, 2018).

Pathways to misunderstanding

The process by which the hearer understands or misunderstands a speaker is described by Pietikäinen (2016). Initially, hearers always unconsciously have a 'hunch' (or interpretation) of what the speaker means. This hunch is not a complete understanding of the speaker, and the hearer may choose to: 1) question the hunch leading to entering a clarification cycle); 2) conclude their hunch is

not sufficient leading to nonunderstanding, and perhaps asking for clarification or; 3) Accept their incomplete hunch leading to either misunderstanding or understanding depending on whether their initial hunch was correct.

Whilst Pietikäinen's model shows that the questioning hunch always leads to understanding, it is also possible that a poor clarification by the speaker could lead to nonunderstanding or misunderstanding. This is reflected in the adapted model in Figure 2 below.

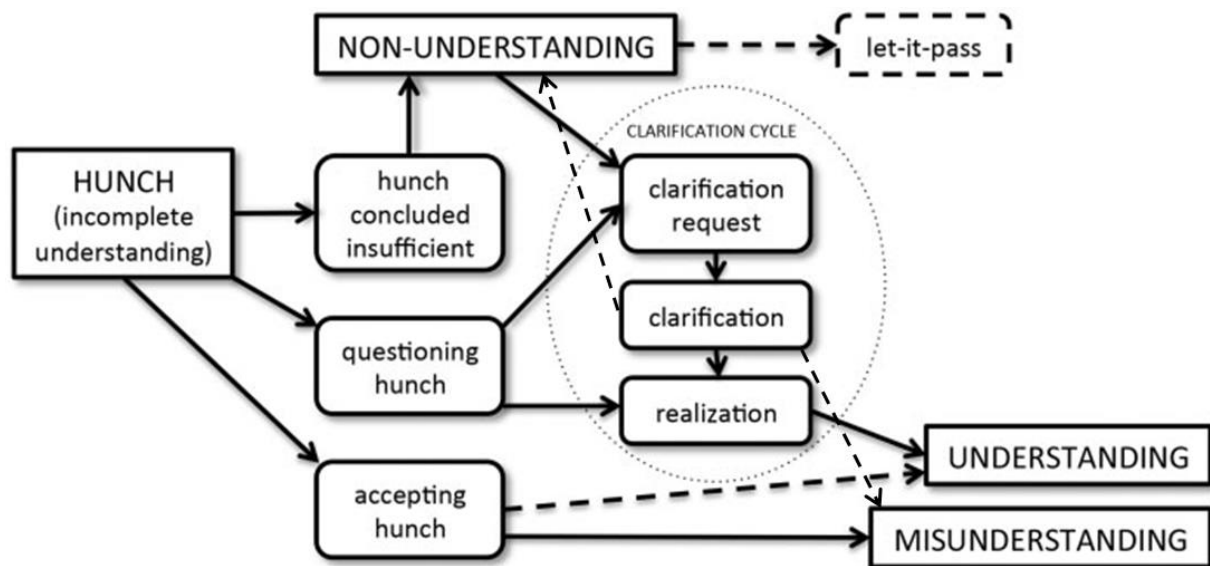

Figure 2 The process of understanding and misunderstanding (adapted from Pietikäinen, 2018)

Once a misunderstanding occurs, the resolution process is non-linear and has numerous pathways. Hinnenkamp (1999) discussed seven types of misunderstandings in her study of the notion of misunderstanding. By grouping these together, there are four distinguishable types of misunderstandings, varying primarily by when (or if) the misunderstanding is discovered:

1. Immediately realised misunderstandings. These might be uncovered by the calibration process.
2. Later identified misunderstandings which lead to a change in status quo ante. The impact of these misunderstandings could be positive, negative, or neutral.
3. Gradually recognised misunderstanding before which uncomfortable moments, lingual insecurity, detours, recyclings and unresponded repair initiations take place.
4. No recognition of misunderstanding except by observers/participants who do not act to address the misunderstanding.

As implied by Hinnenkamp's types of misunderstanding, most misunderstandings are recognised, usually after the speaker notices an aberrant remark, which allows them to initiate a 'repair' process

(Pietikäinen, 2018). This repair can be achieved in various ways, either by a hard rejection of the hearer's interpretation or a softer correction (Pietikäinen, 2018). However, some studies such as Deterding (2013) have shown that in non-native speaker interactions many misunderstandings are left unaddressed, resembling Hinnenkamp's fourth type of misunderstanding. Another way of framing the fourth type of misunderstanding follows research by Verdonik (2010) which suggest that there is a gradation between understanding and misunderstanding, called 'reduced understanding', where neither party is sure of the other's understanding. Semi-recognised misunderstandings highlight the inherent uncertainty in categorising misunderstandings with confidence, given the partial and non-binary nature of understandings.

This discussion of models of misunderstanding displays that coming to understanding is never formulaic: the complexity of the world means that there is no perfect understanding of any relationship or knowledge domain (Weigand, 1999). In all communication, everything cannot be said explicitly as it is not efficient to do so; much meaning in communication is therefore implicit or unmentioned in conversation (Weigand, 1999).

Whilst Hinnenkamp's model may imply misunderstandings are a negative occurrence, misunderstandings are conceptually intriguing for management studies since, if handled skilfully, misunderstandings can be revealing, helpful and have a long-term benefit. A quickly noted misunderstanding can be used to avoid later trouble by signalling to interlocutors that are not on 'the same page', giving the group the opportunity to deal pre-emptively to threats to shared understanding (Robles, 2017). This is particularly the case for 'displayed' misunderstandings, where misunderstandings are reflexively noted. Conversely, hidden misunderstandings could be more damaging and the result of deeper misalignments.

Disagreements

Disagreements and conflict

Disagreement can be defined as the expression of a view that differs from that expressed by another speaker (Sifianou, 2012). This definition is sufficiently loose to emphasise that disagreements can come in a range of forms: an explicit speech act, a carryover from a previous interaction, verbal or non-verbal, interactionally achieved, or associated with a generic way of acting such as problem-solving (Georgakopoulou, 2012). The term 'disagreement' itself is highly contested, with some avoiding the term in preference to 'opposing views' to avoid the nuances and negative connotations associated with 'disagreement' and 'conflict' (Angouri and Locher, 2012). This reflects that the study of disagreement has moved away from associating disagreement solely with impoliteness, 'face threat' and disruption of social relations and have instead begun to document its interactional

aspects and the role that context plays in disagreements (Georgakopoulou, 2012). These positions imply that recent conceptualisations of disagreement do not see the phenomenon as necessarily conflictual or impolite and disagreements should not be seen as always resulting in conflict (Alzahrani, 2020; Konakahara, 2017).

Agreement is referred to in pragmatics literature as 'preferred actions' whilst disagreement is a 'dispreferred action' since participants generally attempt to avoid entering disagreement unless it is necessary (Sacks et al, 1978). Because disagreement is dispreferred, attempts to present an opposing view are frequently prefaced, softened and delayed (Levinson, 1983; Pomerantz, 1984: 65). Expressing disagreement is recognised as a potentially difficult conversation tactic which needs to be carefully handled. This perspective of avoiding disagreements is sometimes taken further, labelling disagreement as mostly confrontational and should thus be mitigated or avoided; as Myers (2004:112) observes, disagreement has acquired a bad name, being regarded as a kind of failure between interactants. For instance, Waldron and Applegate (1994) defined disagreement as ''a form of conflict" and a "taxing communication event''.

This trend of seeing disagreements as conflictual has been retained by many in the virtual team field where many studies have categorised conflicts as synonymous with disagreements. For instance, Paul and Dennis (2018) define conflict as the perception of holding discrepant views or personal incompatibility. Conflict has also been defined as a disagreement among virtual team members that results from incompatible goals and interests (Kankanhalli et al, 2006). This view of disagreements as *prima face* conflictual is a limiting one, reducing the potential fields that a disagreement can take place in: for Paul and Dennis (2018) conflicts can only be task or relationship based, whilst Alaiad et al (2019) see conflicts as task, relational and process, with no separate accounting of disagreements. These conceptualisations of disagreements as synonymous with conflicts go against more nuanced distinctions in the virtual teams field such as Panteli and Sockalingam (2005) who conceptualised conflict as an 'expressed struggle' rather than a clash of opinions.

Recent pragmatics research on disagreements has moved decisively away from viewing disagreements as necessarily conflictual, such as Toomaneejinda and Harding (2018) recent study of disagreement strategies. This research found that a problem with many definitions of disagreement is they rely on utterances, yet disagreements can be verbally unexpressed, for instance disagreeing by using eye contact or silence, clearly not conflictual actions. From another point of view, disagreement is essentially a discourse move (Locher, 2006), a contribution to discourse used to express opposition with another position, stance, or view (Locher and Bolander, 2017). This view of disagreements sees the action as progression in discourse rather than one which focuses on the

disruption in social relations (Locher and Bolander, 2017). Both ‘non-verbal disagreements’ and ‘disagreements as discourse’ construct disagreement as a potentially neutral phenomenon by which participants can intervene in interactions without necessarily disrupting or undermining norms of politeness. This connotation of disagreement is rarely seen in virtual teams research on disagreement or conflict. Such strategies underline that a disagreement is not necessarily a conflict: escalation to conflict depends on the degree to which challenges to statements are expected or accepted (Marra, 2012), so that groups which accept challenges to authority as being valid rarely escalate disagreements into conflicts.

Modulating disagreements

Many studies (Marra, 2012; Toomaneejinda and Harding, 2018; Alzahrani, 2020) have explored the employment of mitigation strategies where disagreements are not directly addressed. These strategies include avoidance of discussion, diversion, and humour, or, when these fail, resolution using negotiation or resolution using authority (Marra, 2012). Some recent work in disagreements has focused on disagreement as playful (Locher and Bolander, 2017) with English as Second Language speakers raising objections through laughter, joking and ridicule (Alzahrani, 2020). Such recent research has coalesced on the position that disagreement is common in English *lingua franca* interactions, but such disagreements almost always avoid confrontation and explicitness, particularly using non-verbal cues. The emphasis on the non-verbal may be due to less linguistically nuanced interactions in a second language (Toomaneejinda and Harding, 2018).

A recent study of disagreements by Toomaneejinda and Harding (2018) has focused on body language and speech acts in face-to-face discussions between groups of ESL graduate students. This research found that methods of managing disagreements include focus shifts, complex turn-management, and use of gaze (Toomaneejinda and Harding, 2018). Focus shift (also seen in Alzahrani, 2020) involves partial agreement and change in focus (for example, bringing in new information) to avoid direct contradictions (Toomaneejinda and Harding, 2018). Complex turn management includes practices such as delayed response and agreeing with an oppositional view, which allow a disagreement to take the form of mass agreement and rapid formation of an oppositional alliance (Kangasharju, 2002) without loss of face to the speaker. Oppositional alliances were also formed through non-verbal behaviour such as eye-rolling or smiling with a potential ally (Toomaneejinda and Harding, 2018). Such techniques were common in the study, showing that in face-to-face interactions, complicated disagreements can occur swiftly and in dynamic reaction to new propositions.

Functions and effects of disagreement

Disagreements have been shown to occur regularly and usually in modulated form. In some settings and activities disagreements are more expected, such as decision making and problem solving (Angouri and Locher, 2012). As might be expected in such settings disagreement is not an *a priori* negative act (Angouri and Locher, 2012) and there also appears to be a strong link between disagreement and creativity. Chiu (2008) argues that in problem solving group activities disagreements (more than agreements) increase micro-creativity by stimulating attention and encouraging group members to consider more aspects of the situation from more perspectives. Research from linguistics assumes that disagreement amongst those with good rapport can strengthen sociability (Schiffrin, 1984)

In pragmatics research, consensual disagreements are contrasted with conflictual disagreements which are often associated with impoliteness and loss of face. Face, defined by Goffman as "the positive social value a person effectively claims for himself by the line others assume he has taken during a particular contact" (Goffman, 1967: 5) can be lost when there is both intent to attack another's face, and a context that allows interpretation of impoliteness (Culpeper et al, 2003). In relation to misunderstandings, issues of normativity and shared (or not) understandings of what is routinely expected, allowed, or prohibited in certain contexts emerge as being of utmost significance to disagreements (Georgakopoulou, 2012). This implies that when the ground rules for interaction are not well established, disagreements are more likely to have a net negative effect on groups. This is supported by research which suggests that conflicts in teams can have a negative impact on 'group atmosphere', a category comprising of the level of trust, mutual respect, cohesion, openness and liking of others in a group (Jehn and Mannix, 2001), which is important to generate for virtual teams to be creative (Rowe at al, 2021).

The potential for gaining or losing face over a disagreement implies that the act of disagreement directly relates to group emotions which can activate restorative actions. The sociology of conflict and disagreements has highlighted that conflict is a means of avoiding more serious communication breakdowns in cases of the eruption of suppressed conflicts and expression of sociability, that is, the opposite of indifference (Simmel, 2010[1908]). Conflictual disagreements generally do not leave interactants cold but arouse feelings of annoyance, irritation, anger, contempt, or disgust in various degrees, which are driven against the communicative partner (Jones, 2001). This underlies the reason why working rapport is necessary to deal with disagreements (Alzahrani, 2020), so that teams do not avoid or repress discussions of disagreements as this could lead to communications breakdown. Repression of disagreement has been little researched yet the potential to lose face may be a reason to repress or avoid a disagreement in a group (Angouri and Locher, 2012). This implies

that when disagreements are undiscussed the micro-creativity benefits are unlikely to be realised. Other studies have shown that a bias in a group towards consensus can restrict learning by discouraging even healthy disagreement (Marra, 2012). A disagreement requires expression to be established or it will remain hidden beneath the surface (Marra, 2012), which Simmel (2010[1908]) associates with communication breakdown.

Conditions for hidden discord

The conditions identified by scholars in which misunderstandings, non-understandings and disagreements are likely to arise and extent to which these conditions are found in virtual teams is discussed in this section. The factors which were explored earlier in the chapter (mode of communication and language differences), are also presented here to demonstrate their potential interaction with misunderstandings and disagreements.

Mode of communication

As most of the sociolinguists scholarship on misunderstandings and disagreements is based on studies of face-to-face interactions, there is little research available to support the contention that use of CMC are likely to lead to more frequent misunderstandings or disagreements. However for misunderstandings, linguistics research has shown that the significance of a misunderstanding, that is its seriousness, is affected by the mode of communication (Pietikäinen, 2018). Weigand also finds that the quality of linguistic means inhibits understanding and stretches communicative competences (Weigand, 1999) and that linguistic expression is more limited in CMC communication, which implies that CMC makes understanding more difficult to achieve. This evidence is only suggestive that misunderstandings are likely to be more significant using CMC; there is no evidence to suggest they would be more frequent. However, CMC may also mask inter-personal differences that can reduce accommodating attitudes. Relatedly, when communication breakdowns occur due to lack of shared meaning between team members, problems become more salient when teams meet face-to-face (Bjørn and Ngwenyama, 2009). Media synchronicity theory would suggest that issues would be more likely to be identified when there is high synchronicity (such as a face-to-face meeting) as this supports information processing and convergence on shared meaning (DeLuca and Valacich, 2006), while Media Richness Theory might imply that without facial expressions or tone of voice it is more difficult to reach understanding (Daft and Lengel, 1986).

From the misunderstandings literature, it has been noted that triggers for misunderstandings in one context can ease misunderstandings in others (Pietikäinen, 2018). From the virtual teams literature, there are suggestions that technology mediates relationships in a dynamic manner, depending on the groups involved: for example, the use of email may help avoid miscommunication and conflict in

some contexts (Lee, 2009; Panteli and Lee, 2010) and promote conflict in others. One underlying factor on the impact of communications medium on reaching understanding is more degree of linguistic comfort in different communication forms: for instance, where interlocutors have learnt English in a context where writing is prioritised above speaking, email may be a more comfortable communication medium, such as in Japan (Harzing et al, 2011). This implies that language proficiency is variable also by form of communication: if a speaker must communicate through writing despite lack of proficiency it may make misunderstandings more likely. Socio-material studies show that different CMC technologies embed certain culturally specific communication tendencies (Hinds et al, 2011; Wang et al, 2009); for instance, instant messaging is common for work purposes in some countries and uncommon in others perhaps due to differing cultural notions of work-life boundaries. The type and choice of communications technology are therefore likely to impact upon the frequency and significance of misunderstandings.

Disagreements and media forms have been studied to an extent in sociolinguistics, where the construction of disagreement is decisively shaped by media norms and affordances about types and roles of participation (Georgakopoulou, 2012). In this context, ground rules for interaction (referred to in this study as a group's social order) are particularly important as they frame what is counted as conflict in an online group where deviation from accepted rules for disagreeing can cause conflict and cause a renegotiation in the group identity (Graham, 2007).

Further research on disagreements needs to be conducted on contexts where online/offline boundaries are blurred (Locher and Bolander, 2017) such as hybrid virtual teams. For instance, some methods of subtle disagreement identified by Toomaneejinda and Harding (2018) are more difficult to employ remotely, with use of gaze being impossible and complex turn-taking largely impractical. This may lead to remote disagreements being deferred until face-to-face meetings where disagreements can be expressed more naturally.

Language differences

Misunderstandings are a predictable aspect of conveying meaning in any language (Kaur, 2011) but multilinguistic communications are more likely to lead to misunderstandings than monolingual communications (Pietikäinen, 2018; Hinnenkamp, 1999). The seriousness and frequency of multilinguistic misunderstandings is debated in the field, however. Varonis and Gass (1985) suggest interactions between native and non-native speakers are likely to have serious communication issues and Beldad and Steehouder (2012) see comprehension problems as unavoidable. Yet according to Pietikäinen (2016) and House (1999) there are few overt misunderstandings in ELF interactions; nonunderstandings are more common than misunderstandings. However, despite

misunderstandings perhaps being less frequent than expected, language differences are undoubtedly a condition within which misunderstandings occur more often.

Pickering (2006) suggests that the processes by which understanding is achieved in ELF interaction are qualitatively different from those observed in native speaker-based interactions. For instance, non-native listeners are far more reliant on deciphering phonological forms, for instance by mentally repeating an utterance to gain understanding (Deterdin, 2005). In verbal communication, pronunciation has been described as "possibly the greatest single barrier to successful communication" (Jenkins, 2000: 83) with grammatical differences playing a smaller role (Jenkins, 2000). In ELF interactions, misunderstandings can arise from lexical features such as limited English vocabulary or unusual pronunciation (Pietikäinen, 2018). Linguistic based misunderstandings are more likely in unplanned speech, which is "notoriously disfluent" (Brennan and Schober, 2001: 274). Misunderstandings in ELF can be caused by mispronunciation and mishearing, ambiguity, knowledge issues, topic organisation, and attention difficulties (Pietikäinen, 2018).

Asymmetrical power

Lockwood's study of virtual teams found that causes of communication breakdown (which include misunderstandings (Bjørn and Ngwenyama, 2009) include power differentials, professional identity struggles, value misalignment, resistance (Lockwood, 2011), whilst Daim et al (2012) found that trust, relationships, cultural differences, leadership, and technology can all affect the chance of communications breaking down (Daim et al, 2012). Whilst communication breakdowns occur at a work level, they require wider reflection beyond task discussions to resolve (Bjørn and Ngwenyama, 2009).

Asymmetrical participation in team interactions, where some participants contribute less to conversation, can lead to miscommunication, the broader category which misunderstandings belong to. In their linguistics study of Information Systems expats in India, Avison and Banks (2008) found that asymmetrical participation in communications can be due to differing cultural attitudes to hierarchy or lack of shared understanding of expected responses (Avison and Banks, 2008). Different rhetorical organisation of conversations is also shown as a cause of miscommunication, particularly during conflict or negotiation. Rhetorical differences can reduce the power of argument, especially for the weaker party (Avison and Banks, 2008). Therefore, the limited literature in this area indicates power imbalances may cause of miscommunications, and possibly, therefore, misunderstandings.

The literature on power and disagreements has established that the pathway of a disagreement is often shaped by asymmetrical relationships. First, the cyclical nature of disagreements is implied by Graham (2007:758): ''all interactions are contextualized and interpreted within the frame of

previous interactions and the expectations that grow out of them''. Under this view, disagreements can shape power relations in a group and the achievement of power has been viewed as a possible goal in disagreement (Rees-Miller, 2000). This implies that power and affect or relational histories are unstable in a group, transferred changed from one interaction to the next. It also suggests that power can affect the trajectory of a disagreement given that impoliteness tends to be avoided (Georgakopoulou, 2012): in teams that have a culture of unquestioning high status team members, for instance, suppression of disagreements may be more common.

One of the most interesting results of using power in disagreements is the potential to reframe a disagreement as a misunderstanding. In the pragmatics field, distinguishing between disagreements and misunderstandings has proven difficult for both research participants and researchers: for Marra's (2012) study of migrant interns "it has been almost impossible to identify disagreements with any confidence. In practice, [the mentors of interns reinterpret] any attempts at disagreement… as a different speech act (e.g., refusal) or more commonly as a misunderstanding or miscommunication" (Marra, 2012: 1588). Even for in depth, conversation-level analyses of disagreements there is a great deal of uncertainty about the degree of context needed to understand a disagreement, how to reconcile the researcher's and interlocutors' characterisation of an incident, and the degree to which a researcher needs to know about the communication patterns in a group to understand the connotations of a disagreement (Georgakopoulou, 2012).

Marra's (2012) study of disagreements between migrant interns and their managers showed that categorisation of disagreements as misunderstandings is a common phenomenon with disempowered groups. Miscategorisation is particularly frequent when participants do not share ground rules on how to interact and how to disagree without being disagreeable (Marra, 2012). Power is important in situations when ground rules are not established as denial of disagreement means the opinions of the 'weaker' participant are not recognised; instead, they are deemed to not understand a situation, which reduces their potential to influence the other participant.

When disagreements are reframed as misunderstandings, kindly tolerance of misunderstandings has the effect of disempowering the migrants and nullifying any potential accusations of impoliteness: they simply do not know how best to interact yet. This is supported by studies that treat politeness as a social, interactional achievement, rather than a product of speaker intentions or hearer interpretations (Grainger, 2011). When listeners pass off disagreeing behaviour as an issue of proficiency or mistaken intentions, tolerance for poor communication can lead to participants avoiding escalating disagreements into conflicts by passing off disagreements as listener mistakes

(Marra, 2012); in situations where disagreements are not acknowledged, the status quo continues unchallenged.

Interpersonal relationships

Another condition affecting the chance of misunderstandings occurring is interpersonal relationships. In the sociolinguistics field, studies have found that longer collaborations or relationships protect against misunderstandings and so we may expect to see more frequent misunderstandings in initial interactions than following a period of communication (Smit, 2010). In contrast, Pietikäinen (2016) finds that over time, speakers reduce or intensify communication differences depending on the circumstances: when it is more socially rewarding to do so, speakers will converge with each other and reduce misunderstandings, for instance, when befriending (Pietikäinen, 2018). In contrast when speakers wish to diverge this can cause misunderstandings, perhaps due to wishing to maintain or emphasise their cultural identity (Jenkins, 2000; Gallois and Giles, 1998). The path of convergence/divergence is also influenced by initial impressions which can lead to under- or over-accommodation of others (Pietikäinen, 2018). In addition, heterogeneity in culturally diverse teams amplifies individual differences and makes conflict and controversy more likely (Vigier and Spencer-Oatey, 2018) and so larger more diverse groups may result in greater misunderstandings.

Recent research has shown that disagreement need not be seen only in negative terms, that is, it may not necessarily result in conflict and impoliteness, but can be a sign of intimacy and sociability and may not destroy but rather strengthen interlocutors' relationships. Schiffrin's (1984) classic work has argued that disagreement among friends can signal sociability rather than a breach of civility. This implies that the function of disagreement is context dependent, including personal traits and relational histories (Sifianou, 2012). Sifianou (2012) notes that some studies which assume preference for agreement are from British-English data, implying that there is a cultural aspect to preferred conversation outcomes. In contrast, for Greek nationals, disagreement is a preferred action in many contexts such as academic writing (Koutsantoni, 2005), and that there are gender-based norms within cultures around disagreement: Greek women tend to use mitigation strategies to indirectly contradict, whilst men do not (Makri-Tsilipakou, 1995). This is to suggest that disagreement within and between cultural contexts is a complex phenomenon and patterns of discourse in multi-national teams are likely to be contradictory and contingent to circumstances. How disagreement is expressed, for instance, whether a mitigation strategy is used, will have an impact on relational issues (face-aggravating, face-maintaining, face-enhancing) (Angouri and Locher, 2012). The use of mitigation in second-language disagreements suggests that participants

are reflexively aware of diversity of opinion and its potential roots in linguacultural diversity (Toomaneejinda and Harding, 2018).

Whilst many typologies of disagreements and scales of explicitness exist, these have generated little consensus in the field as “type after type of disagreement has had to be adjusted to contextual exigencies and ultimately be declared ‘context-specific’” (Georgakopoulou, 2012). Context is an important variable in disagreements and one which has proven difficult to model in sociolinguistics. For instance, few models include affect despite research showing that liking (or disliking) another person will affect both the production and evaluation of a disagreement (Sifianou 2012); relationships effect the cooperative or antagonistic ambience of an interaction (Kienpointner, 2008). One limitation of sociolinguistic research in the area has been to focus data collection upon conversations (Locher and Bolander, 2017), yet, due to the importance of contextual factors such as relationships “researchers should cast their net wider when analysing disagreement since the source of disagreement might in fact lie outside the observed [conversation] data” (Angouri and Locher, 2012: 1551).

Speaker egocentricity

Another area that misunderstandings may derive from is self-serving biases or egocentricity. Studies in management have shown that when failures to adapt to others occur, distributed group members are prone to make attributional judgments about distant partners rather than to consider their own personal adjustment difficulties (Walther et al, 2002). According to Cramton’s (2001) work, this is process can be described as an attribution error, whereby team members make incorrect inferences about the cause of events. This type of error is likely to be more common in dispersed teams due to situational invisibility (Cramton et al, 2007). Team members in distributed groups are much less aware of the local work situations (equipment, standards, competing responsibilities, pressures from local supervisors and co-workers, and local holidays, customs, and emergencies) and this blindness may lead to instead blame failures on the disposition of distributed team members instead. Incorrect attribution in teams is important as it can affect team ability to learn, willingness to collaborate, group cohesion, satisfaction, and leader-member relations (Cramton et al, 2007).

In terms of misunderstandings specifically, various studies have shown that misunderstandings are often due to speakers not expressing themselves effectively or a lack of contextual or situational support (Pietikäinen, 2018; Mustajoki, 2012). Potentially both poor expression and lack of contextual support are exacerbated in virtual teams and so are worth discussing in detail.

Mustajoki (2012) proposed a model for miscommunication that ultimately suggests the cause of all miscommunication is egocentricism on the part of the speaker. Under Mustajoki’s cognition-based

model, miscommunication occurs because the speaker's goals are self-centred, the speaker emphasises economy of energy and so does not bother to monitor the hearer's reaction to their speech, and the speaker falls foul of the 'common ground' fallacy where they expect understanding even when the hearer comes from a different background (Mustajoki, 2012).

For Mustajoki's (2012) model, the cause of miscommunication is incomplete 'recipient design', that is, speakers do not sufficiently design their speech to consider and check understanding of their utterances. Risks to miscommunication, such as ambiguity, can therefore be minimised when recipient design is effective. Recipient design is of variable importance depending on the situation. When differences in the 'mental worlds' of interlocutors are more significant (such as when the cultural and sector backgrounds of the listener and speaker and not aligned), good recipient design is more necessary whereas similarity in mental world means less care needs to be taken in communication design to avoid miscommunication as shown in Figure 3 below.

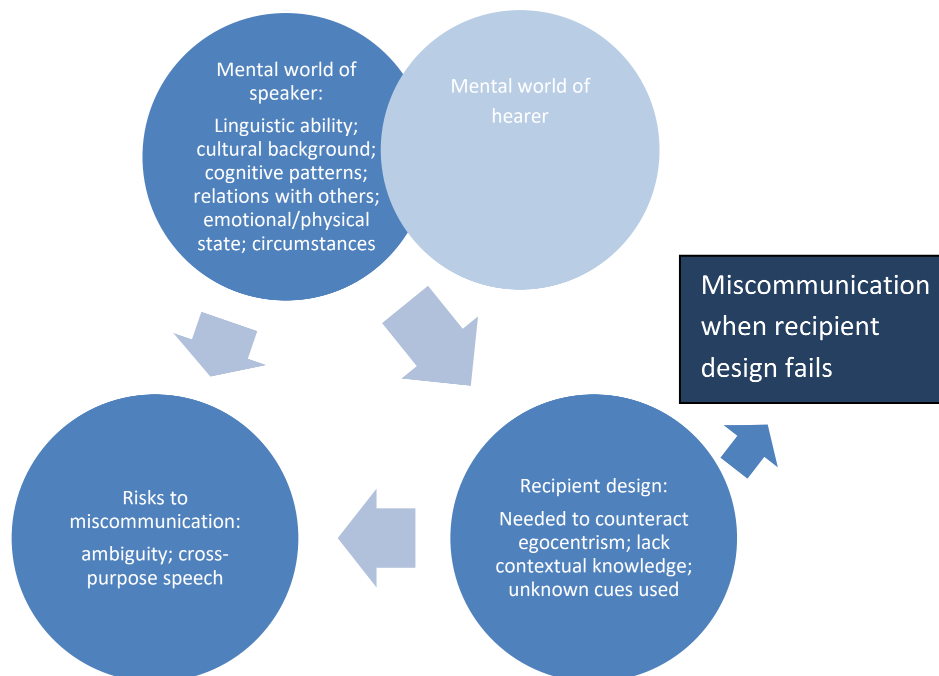

Figure 3 Egocentric model of misunderstandings (adapted from Mustajoki, 2012)

In support of Mustajoki's model, the *cognitive means* of interlocutors (for example, lack of knowledge, an aspect of the mental world) can increase the risk of misunderstanding. Lack of knowledge of actions and references can be misunderstood leading to poor recipient design. This is significant for GVTs given that knowledge of others is harder to access when geographically distant. Since meaning of communications is predicated within a particular cultural context, when communication design is not explicitly designed others may be blind to cultural references (Weigand, 1999).

Mustajoki's theory of speaker egocentricism is somewhat weakened by the observation that Mustajoki does not account for the *mutual* responsibility between speaker and hearer for shared contextualisation conventions (Weigand, 1999). The specific socio-cultural context interferes with the chance of misunderstanding: both the speaker and hearer have contextual blind spots (such as differences in conversational cues) that are not controllable by speakers alone (Pitikainen, 2018). Despite this critique, conversation analysis does show that speakers conduct 'understanding checks' less frequently than expected (Foppa, 1995) and so Mustajoki's theory is likely to have some value.

Summary of GVT research gaps

As shown in the preceding section, the literature in the GVTs field has become increasingly sophisticated in many areas but for the topic of discord in GVTs there remain several key research gaps: on disagreements and misunderstandings, on language and culture, on microdynamics, and for the methods of sociolinguistic studies.

Research on communication breakdown is fairly common: in the virtual teams field, there have been several studies on communication breakdown in general (Bjørn and Ngwenyama, 2009), conflict (Vigier and Spencer-Oatey, 2018; Lee and Panteli, 2010; Panteli and Sockalingam, 2005), and knowledge transfer difficulties (Welch and Welch, 2008; Klitmøller, and Lauring, 2013). Yet few studies focus in detail on sub-types of communications breakdown, on the situations that lead communications breakdown to arise, and the different effects that different types of incidents have. Whilst misunderstandings have been alluded to in several studies (Anison and Banks, 2008; Lee, 2009) they have never been the subject of an extensive study. As shown above, conflict has been studied but not disagreements, and previous studies have often conflated the concepts of conflict and disagreement (for example, Paul and Dennis, 2018; Kankanhalli et al, 2006). Given that discontinuities in GVTs should be expected to result in a high occurrence of discord, it remains unclear what happens when diverse teams disagree or misunderstand at a distance and more so due to the lack of studies on emotional life in GVTs (Baralou and McInnnes, 2013).

As well as types and effects of discord in GVTs, the causes of communication breakdown are both complex and unclear (Lockwood, 2015), and Alaiad et al (2019) recently called for further study into the causes of conflict in virtual teams. There is little understanding of the communication issues faced in GVTs depending on their stage of establishment. This is important given that the stage of relationship influences the prevalence and severity of misunderstandings (Pietikäinen, 2018), indicating the need for longitudinal or retrospective data collection methods. ICTs are also sometimes treated only as a background issue in GVTs or the lack of physical cues usually treated as an obstacle in communication (Baralou and McInnes, 2013) when recent research alludes to the

subtlety of ‘communications arrays’ being a key part of the context for miscommunication in GVTs (Chamakiotis and Panteli, 2017).

The second highlighted research gap is on the culture/language interface. Whilst culture is difficult to study, particularly due to its dynamism as a concept (Jackson, 2011), most studies in the review which looked at culture used Hofstede’s notion of national culture (2001) which statically classifies cultures on several cognitive spectrums. Whilst such classifications of global cultures can have some usefulness in drawing out themes, cultures are expressed differentially, subtly, and operate in micro-interactions that Hofstede’s classification system cannot capture. Hinds et al find the “conception of culture employed by management and global work scholars… unnecessarily narrow and frustratingly limiting” (Hinds et al, 2011: 157). Few studies of global work have subjected multi-national teams to an open intercultural lens (Hinds et al, 2011), one based on practices that form on an ad hoc basis, situated in the specific conditions and make-up of individual global teams.

Similarly, the conception of language rarely uses conceptual frames from linguistics, where any one of the fields of semantics, pragmatics, sociolinguistics, and anthropological linguistics would prove insightful (Chen et al, 2006). Most language-based studies of GVTs have focused on practical issues (Kulkarni, 2015) such as use of online HR software (Heikkilä and Smale, 2011), language competences and policies (Harzing and Pudelko, 2013), the decision to choose a *lingua franca* (Zander et al, 2011), and solutions to the language barrier (Harzing et al, 2011).

The lack of linguistics-based insights may in part be due to the relative lack of qualitative studies in management. According to Brannen et al (2014), the quantitative dominance of International Business as a discipline has led to language being studied as an etic topic, for instance researching how languages can be seen as ‘close’ or ‘distant’ to each other and examining the effects of language distance (Brannen et al, 2014). The lack of interdisciplinary research on culture and language is surprising given the diverse nature of GVTs and in the virtual teams field, it is rare to see management scholars who also engage with sociolinguistics (Chen et al, 2006). Scholarship rarely distinguishes between language and culture with one treated as a proxy for the other (Hinds et al, 2011). Given this, further qualitative studies on language in GVTs could provide an important contribution to the field.

The third relevant research gap is on the micro-dynamics of communications in GVTs. Whilst case studies have become more prevalent in recent years teams (for example, Hinds et al, 2014; Klitmøller and Lauring, 2013; Tenzer and Pudelko, 2017), studies of specific interactions remain rare which can mean studies can gloss over major events that shape dispersed teams. One micro-

analytical study of English as *lingua franca* (ELF) by Kappa (2016) found that: “It can therefore be suggested that a microanalytic focus and consideration of the context that makes up an ELF speech setting would allow for a more diverse and rich understanding of the unfolding of ELF interactions, as well as the interactional and relational work that the participants can be seen doing” (Kappa, 2016: 17). More micro-level studies of interactions have been called for to understand team dynamics in diverse language settings for GVTs (Vigier and Spencer-Oatey, 2018).

The lack of studies on microdynamics is important as topics such as group identity and social order are difficult to understand without specific incidents; how group dynamics change over time and why, whether team definition can withstand non-fulfilment, and how team members demonstrate identity change require rich qualitative studies to understand (Hillier and Baralou, 2010). Previous studies have not used a critical incident approach which may help to identify the causes and results of miscommunications (Kappa, 2016; Hinds et al, 2014; Vigier and Spencer-Oatey, 2018).

Finally, the review of misunderstanding and disagreements showed that sociolinguistic studies have some methodological limitations on the topics. Notably, studies of misunderstandings and disagreements in the pragmatics field have focused on conversation analysis (Locher and Bolander, 2017), which has limited the contextual information available to researchers (Angouri and Locher, 2012). This implies that there would be value in contextualising misunderstandings and disagreements within the history of a group, to focus on both the conditions and long-term effects of discord, and thereby understand the role that discord plays in the social and professional life of teams.

Summary

This chapter examined two further moderating factors which appear most closely associated to hidden discord: CMC and language. The review also covered misunderstandings, nonunderstandings and disagreements to provide a solid foundation of what is meant by these concepts, common tendencies, and moderating factors. The review ends with the relevant research gaps identified for this study.

Chapter 4 Methods and methodology

Introduction

This chapter provides an overview of my ontological and epistemological positions then discusses the implications of these stances for my data quality framework. In the first section I outline my relational ontology and epistemology which suits an interpretivist study. I use abductive reasoning following a moderate constructionist epistemological approach to explore surprising results and use these to generate theory. I have an interpretivist approach to ensuring data quality which focuses on reflexivity and checking findings with relevant stakeholders.

I outline the qualitative interview as my main methodological approach before detailing my data collection and analysis methods. I use multiple qualitative interviewees of employees with experience of GVTs on temporary R&D projects. These interviews explore misunderstandings primarily through critical incident interviews. Additionally these critical incidents undergo communicative checking through follow up interviews with other team members and email documentation where accessible and possible. Coding analysis was conducted by within-group and between-group comparison of incidents using grounded coding of text with Gioia et al's (2013) approach, typological analysis of incidents, and micro analysis of three critical incidents in Team A.

Philosophical preferences

Introduction

For any research project, the methodology is established within a philosophical framework which influences the selection of methods and analysis of results. Whilst this framework is related to the discipline in which the study is conducted, each disciplinary paradigm is subject to complexity and evolution which happens over time and at different rates within sub-areas. This means each discipline has a broad range of incompatible philosophical tenets. Whilst these beliefs are always implicit in research, it is useful to make the underlying assumptions and philosophy of the methodology explicit to clarify the rationale for the underlying notion of research 'quality' and why the research methods were selected (Kvale, 1995).

The central philosophical categories discussed in social science research are ontology and epistemology. Ontology is a branch of philosophy concerned with the nature of the social world and what can be known about it, whilst epistemology is concerned with the nature of knowledge and how it can be gained (Ritchie and Lewis, 2003). Ontology and epistemology are fundamental categories in that they have a vital impact on how inquiry happens: if a researcher believes that

truth exists and can be accessed through a single social reality, then the way they approach inquiry differs greatly to researchers who believe there is no truth and multiple versions of reality.

Ontology

Ontological positions are held in a spectrum from realism (also known as objectivism) at one pole to relativism (known as subjectivism) at the other end. For realists only one true reality exists, and this reality can be directly observed (Järvensivu and Törnroos, 2010). In contrast, for relativists reality does not exist outside of subjects, and there are multiple local and specific constructed realities (Järvensivu and Törnroos, 2010). Relativism is most markedly represented in postmodern thought, which places doubt on any method or theory to gain authoritative knowledge. Whilst relativism has been criticised for implying that all knowledge claims are equal (Reed, 2005) realism takes too little account of the ways in which the researcher's actions and perceptions impact on the social world.

Rather than an objectivist or subjectivist ontology, I favour an intersubjective ontology. This is a third knowledge problematic between realism and relativism. An intersubjective ontology is relational (Keevers and Scaratti, 2017) and recognises human agency whilst seeing reality as primarily formed through the interaction between individuals rather than individual cognition. Rather than seeing the targets of study, such as technologies, as having a sort of cultural essence, relational ontology accepts that the significant technologies, activities, and preferences uncovered by research are only understandable in terms of the social spaces, positions and relationships situated at a particular time and place (Grenfell, 2008). As explored in the literature review on GVTs, technologies should also be understood as providing affordances which depend on participants' relation to the technology. Technologies are therefore contingent on the perception and experience of the users (Orlikowski and Scott, 2008). Human relations too are formed and reified through interactions. For instance, social distinctions in the upper classes are often considered an innate property, that is, people born into nobility have inherent manners. Taking a relational perspective, social distinction is an interactive property that exists only through its interrelation to other properties such as wealth and social capital (Bourdieu, 1998).

Epistemology

An epistemology is a theory in the mind about the extent to which reality exists and can be known. A researcher's epistemology is related to their ontology, though it does not determine it (Johnson et al, 2006). An epistemology cannot be chosen from a menu of options depending on the object of study, because epistemology relates to deeply held beliefs about the world (Marsh and Furlong, 2002).

Interpretivist stance

A central epistemological choice in social science can be broadly characterised as deciding whether the researcher can be independent and unaffected by the object of research (a positivist stance) or if the researcher and social world necessarily impact on one another (an interpretivist stance) (Ritchie and Lewis, 2003). In my case, my choice of topic (the study of hidden discord such as misunderstandings) is suggestive that I believe there is some significance to how interpretations can affect social relations (and vice versa). One assumption of 'misunderstanding' is that direct observation of intersubjective reality is not possible: misunderstandings can be uncovered by all, noted only by part of the group, or noticed by no one. From my epistemic stance, groups must co-construct knowledge with a degree of mutual ignorance, without direct access to 'reality' and make interpretations which are sometimes faulty. This choice of topic implies that I believe the interpretations of others are meaningful, including my own as a researcher: after all, if (mis)interpretations of research participants are significant would interpretations of the researcher not also be significant?

My stance is in line with an interpretivist epistemology. Interpretivists focus on the processes by which meanings are created, sustained, and modified (Andrews, 2012). Interpretivists, beginning with Heinrich Rickert (1863–1936) and Max Weber (1864–1920), argue that human interpretations are relevant and should not be screened off to objectively observe phenomena; rather human interpretations are critical to understand society (Hughes et al, 1997). One later stance derived from interpretivism is social constructionism. Berger and Luckman (1966) *The Social Construction of Reality: A treatise in the sociology of knowledge* is seen as the pioneering text for social constructionism and argues that humans within social systems interact and these interactions produce mental representations of each other's actions which become habituated and made real through relationships, creating essentialist concepts such as race and gender. Social constructionists hold that there are multiple knowledge bases possible, and so knowledge does not converge to a universal truth (Järvensivu and Törnroos, 2010). Social constructionism is an epistemological position concerned with how knowledge is constructed and understood inter-subjectively (Andrews, 2012) and posits that sense of self and social reality are constructed through social interactions (Cunliffe, 2004).

Moderate constructionism

Moderate constructionism is a form of constructionism and so is an anti-realist stance derived from relativism. Moderate constructionists hold that society exists as both subjective and objective reality which differs to 'pure' social constructionism which emphasises subjective reality (Andrews, 2012). Moderate constructionism allows for the possibility of local, personal and community forms of

knowledge, although to be counted as knowledge, it must be both socially and critically engaged (Järvensivu and Törnroos, 2010). This implies that all knowledge must be, in some fashion, both critiqued and checked by others before it can be held to any level of knowledge (Järvensivu and Törnroos, 2010).

Moderate constructionism can be contrasted with critical realism. Critical realism shares many similarities with moderate constructionism yet derives from realism rather than a relational ontology. Critical realists hold to a single version of reality rather than multiple perspectives to reality (Järvensivu and Törnroos, 2010). As a reflexive researcher it is important to decide between these two frames by asking the question: how do I see knowledge being built? Critical realism implies that the researcher is on a 'search and discovery mission' whilst moderate social constructionism see research as a 'social encounter' where knowledge is jointly constructed (Järvensivu and Törnroos, 2010). In my experience of research, knowledge requires a dialogue and is not taken directly from informants' minds; therefore, this research takes a moderate constructionism stance. From this epistemological perspective, whilst objective reality exists, it is ultimately inaccessible; this does not imply that seeking knowledge is futile, but only that human 'knowledge' can never *fully* comprehend social reality.

Moderate constructionism is typically less interested in cognitive processes; this is more a hallmark for subjectivist constructionism which holds that society is constructed through social interactions with the force of reality in the mind (Andrews, 2012). It is my view that accessing relational 'reality' requires some analysis of the psychological processes that form these relations. Psychic reality is defined as "everything in the psyche which takes on the force of reality for the subject" (Laplanche and Pontalis, 1973: 363). Using the idea of psychic reality, or internal reality, a person's knowledge of the world is not determined by the direct force of external reality but by the interface of perception through which the person experiences these forces. Whilst intersubjective research often claims to only focus on social relations, in practical terms this is not possible as it would require ignoring data on the emotions, feelings and cognition of participants, and erroneously labelling all these individual cognitions as only social in nature. Therefore, whilst I use a moderate constructionism frame, I attempt to account for how reality is constructed in communities by assessing both intersubjective and subjective realities of research participants.

Research quality considerations

With a relational ontology and an interpretivist, moderate constructionism epistemology, my stance shares none of the assumptions of positivism. This means that notions of research quality that derive from positivism such as validity, reliability, and generalisability have to be translated when used in

my research (Kvale, 1995). This is particularly important as many qualitative researchers tend to transfer these notions into their research without modification (Johnson et al, 2006).

Generation of contextual insights

One of the most appealing aspects of positivism is the claim to generalisability, that is, that research results in one context can be generalised to other contexts. However, if multiple versions of reality exist bounded by time and place, generalisability appears to hold insufficient regard for how much context shapes the lifeworlds of the researched. Rather than generalisability, research results can contribute *contextual insights* when they fulfil quality criteria. These insights can then be used to analyse related contexts (Järvensivu and Törnroos, 2010). For transferability of results to be likely, the research must demonstrate understanding of prior theoretical and empirical knowledge in the area, the results of the study, and the environment of the object of study. For a case study, this environment might include the history, institutions, and market conditions of the organisation under consideration (Järvensivu and Törnroos, 2010).

Validity is not possible to be checked against from a moderate constructionism stance, at least not in the sense used in quantitative studies. Instead research can be made more robust by a) supporting all claims using data, b) critically reflecting on the data, claims and argument, and c) checking the claims are critically engaged through consulting the relevant communities (Järvensivu and Törnroos, 2010). In other words, the research must be data-based, undergo reflection, and be checked for veracity with the relevant communities. This should ensure that all voices in the inquiry are accounted for and heard upon producing the results.

Crystallisation

Using a moderate constructionism epistemology, the idea of triangulation as derived from the natural sciences is not relevant: knowledge is formed between the researcher, research participants and the research community rather than in a pure informational space. Given knowledge is bounded by a particular community, time and space, a better metaphor than triangulation (derived from wayfinding) is *crystallisation* (Järvensivu and Törnroos, 2010). Crystallisation represents a process whereby the research findings become gradually solidified, bounded and the 'facets' become clearer in relation to the whole object of study. This process happens as the researcher builds evidence from different sources and checks their interpretations reflexively, with participants, peers, and other stakeholders in the research, to build a robust and multifaceted picture. The implication of this metaphor is that the researcher is forming a particular type of unique knowledge set as represented by a crystal.

Abductive reasoning

Rather than testing theory (as in deductive reasoning) or generating theory (inductive reasoning) researchers can attempt both using abductive reasoning (Sarker et al, 2018; Tavory and Timmermans, 2014; Järvensivu and Törnroos, 2010), which is in line with the moderate constructionism perspective (Järvensivu and Törnroos, 2010). Abductive reasoning is an iterative process, recursively and creatively (Sarker et al, 2018) moving back and forth between observations and theoretical generalisations (Tavory and Timmermans, 2014). Abduction in qualitative research refers to the process of producing theoretical hunches for unexpected research findings, or mental leaps (Sarker et al, 2018) and then developing these speculative theories with a systematic analysis (Tavory and Timmermans, 2014). Because of these characteristics, the inferences from abductive research can be described as both logical and innovative (Reichertz, 2007).

Throughout the research process a researcher using abduction will form provisional theories to explain unexpected findings, test these theories during data analysis, iteratively reform theories and retest them throughout the process. By the end of the research, an abductive researcher will finish with theory testing using the theory developed from throughout the research (Järvensivu and Törnroos, 2010). The results of this process are theories which explain surprising results (Reichertz, 2007), or surprising and creative theories (Sarker et al, 2018). Crystallisation fits well into this process of discovery: the boundaries of knowledge are gradually strengthened and crystallised as the theory testing and building process continues.

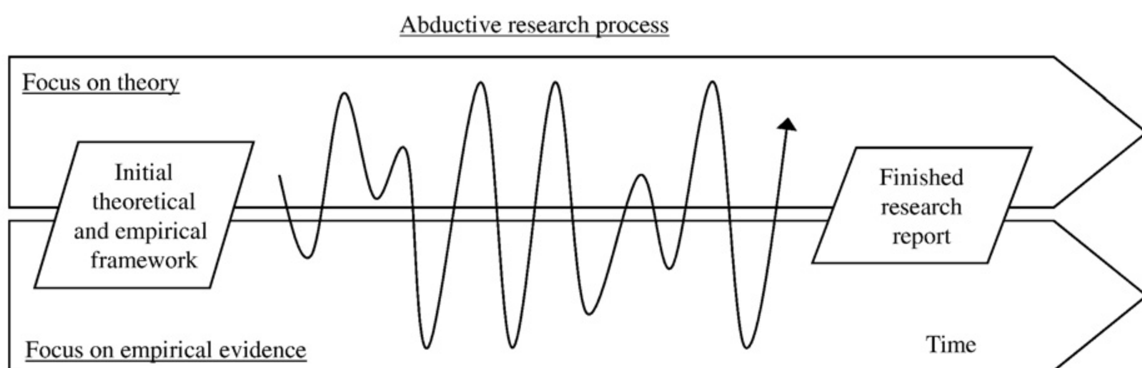

Figure 4 The abductive research process (from Järvensivu and Törnroos, 2010)

Reflexivity in research practice

An important element to ensure research quality is reflexivity. Reflexivity can be seen as an 'unsettling' of basic assumptions, discourse, and practices through critical examination of the self and object of study (Cunliffe, 2004). Reflexivity is a necessary component of research as knowledge

needs to come from within as well as from data and theory (Cunliffe, 2011), so the researcher must become a part of the research results.

As a researcher conducting this study, I attempt to take a reflexive gaze, by asking myself both 'how do I know that?' and 'how do I know that the research participant knows that?' Answering these questions effectively requires accounting for the structuring effects of society in assessing knowledge claims: each individual embodies society through habitus, is situated in a particular field, and is influenced (and influencing) their relations through their social power (Maton, 2003). The researcher needs to be vigilant not to accept easy answers to these questions, whilst not placing excessive doubt on the knowledge claims (Maton, 2003). Part of this vigilance is to reject Bourdieu's implication that all research participants (including the researcher) are basically motivated by capital accumulation. However, I treat research participants as not only self-centred: the 'will to know' (and the 'will to be understood') are important to people alongside the 'will to power' (Maton, 2003). This research approach views research participants as immersed in their environments and influencing their environments, even when being researched, and must bear their situated-ness in mind during theory-generation and testing.

Communicative checking of findings

Moderate constructionist studies must engage the communities who are the object of research to ensure the research is sufficiently robust. This process includes checking[7] the results with research participants, relevant professionals, and academics (Järvensivu and Törnroos, 2010). In my research this checking process was in three parallel stages of communicative checks, adapted from Kvale and Brinkmann (2007). Stage one checked self-understanding, stage two checked critical common-sense understanding, and stage three checked theoretical understanding.

Stage one checked self-understanding which was performed initially during interviews as interviewees interact with me and we engage in collective sense-making. In stage 2, following the completion of analysis, I sent the analysis to the relevant interviewees for them to critically engage in their experience of the cases. In stage 3, I used conferences, peer review, and academic dialogue to test theories derived from the research.

[7] It is worth noting that 'checking' is the term used here and in Kvale and Brinkmann (2007) yet the word 'check' has some inherent limitations as a term in a constructionist study. 'Checking' may imply to some a form of 'validation' to an external 'truth', yet in this thesis it is meant as a more informal social process of sharing interpretation, respecting others' interpretations of a phenomenon, rather than privileging the researcher's own interpretations.

During the initial stage of checking self-understanding, following interviews I completed a reflection form on the interview process (shown in Appendix 5). This reflection covers two topics: observations and afterthoughts. Observations include how the interviewee appeared to feel from body language and tone of voice, the ease of the process, and my feelings and sense of self during and after the interview. Afterthoughts include where my thoughts were travelling to, central preoccupations, key themes and concepts that were coming up in relation to themes. This reflection form helps to elicit any thoughts and feelings I experience during and following the interview, giving a record of my own reflexive practice, as detailed in the preceding section. This was a vital component of analysis of the researcher interacting with the participants, particularly where the interviewees are already known to the researcher. In my case given I am functionally monolingual and mostly interviewed non-native English speakers partially on the topic of language such reflection is vital. Therefore, I paid particular attention to how I personally used language as the interviewer.

The second stage of checking, critical common-sense understanding, occurred following the start of data collection. As the data was formed into provisional knowledge, I asked whether the findings make sense upon critical reflection, and how helpful the findings are to GVT practice. I consulted with members of the teams who I interviewed for this study, with a mix of those who were interviewed and those who were not. This provided a valuable forum to situate comprehension within a practice context as well as to check the critical reflections of colleagues.

Finally, my theoretical understanding was honed through interaction with the wider academic community. This included supervisory meetings, and participation in internal and external conferences. Further checks to my theoretical contribution will be during my *viva voce* and with the submission of journal articles upon receiving peer reviews.

Context of Interpretation	Checking community	Form of check	Forum
Self-understanding	Interviewees (1) Researcher (2)	Member checking	(1) Within interview (2) Following analysis (3) In reflective form
Critical Common-sense Understanding	The teams from which interviews were taken	Audience checking	Practice meetings, workshops, and conferences
Theoretical Understanding	The academic community	Peer checking	Supervisors, examiners, and wider dissemination

Table 2 Three stages of communicative checking adapted from Kvale and Brinkmann (2007)

Research design and methods

Introduction

The approach I used for this research was a series of qualitative interpretivist interviews. Given the focus of my research is on language, technology and hidden discord, qualitative approaches are suitable as they are used to explore multiple versions of events and entities, answering questions of process, description, and rationale (Miles and Huberman, 1994) rather than quantity. Interviews are not tied to any particular ontology or epistemology and are a flexible method for management scholars. Rather than taking a deductive approach to the interviews which tests hypotheses, I take an interpretivist, abductive approach.

Whilst this approach follows in line with my epistemological stance, practical considerations imply it is also suitable for the topic. As this research is set to be the first to explicitly look at hidden discord in GVTs, qualitative interviews are a suitable lens to use, given their usefulness in exploring emerging processes, generating theories, and checking theory whilst providing a wide range of experiences. As my research questions concern questions of how and why (Baškarada, 2014), the qualitative accounts were used to move the field towards provisional understanding of how and why misunderstandings happen in GVTs.

Case selection criteria

Having multiple teams and accounts of incidents makes research findings more robust as well as ensuring that there is less risk of not completing the research if the fieldwork came into difficulty (Yin, 2004). Using qualitative interviews as the main data collection method often results in generating many individual accounts with few opportunities for comparison. However, I selected interviewees based within project teams to ensure rounded accounts of hidden discord from multiple perspectives. This means that in most cases, multiple accounts of the same incident were generated, providing a stronger base for theory development (Eisenhardt and Graebner, 2007).

The GVTs from which the initial interviewees were chosen were selected on six criteria: presence of hidden discord; variety of language policies; diversity of organisation type; similarity of sector; recent incidents; lengthy collaboration. These criteria are explored below before describing the six initial research teams.

The first criterion was that there should be diversity in terms of the significance of hidden discord. Selecting interviewees who have varying experiences is useful when analysing the data for pattern recognition of the central constructs, relationships, and logic of the phenomenon of study (Eisenhardt and Graebner, 2007) and so improves the resultant theory (Baškarada, 2014). This

criterion is important in that some teams had a greater incidence of hidden discord than others, meaning that I was able to examine the conditions in which discord arose with greater frequency and seriousness. However, it is vital that interviewees have had *some* experience of misunderstandings or disagreements within their teams as all interviews must contain instances of the phenomena of study to have comparability (George, 2019). Therefore, all teams I selected have at least some experiences of hidden discord.

The second selection criterion for the cases was that formal language policies should vary somewhat between teams. As shown in Chapter 3, there is disagreement as to whether using language mandating leads to more misunderstandings or whether fewer misunderstandings occur due to successful accommodation strategies. This language criteria also gives more scope for comparison in the field (Jenkins et al, 2011).

Third, the cases were from similar sectors. If there is too much divergence in the sectors, the comparability of cases, and therefore the transferability of learning, is weakened (Yin, 1981). With a comparable field of operations, it is less likely that the explanatory factor for the misunderstandings are the cultures of different disciplines. Given this, nearly all the teams the initial interviewees chosen from were working on research and development projects.

The fourth criterion was that there should be a variety of organisations taking part in the teams. Whilst no study has been conducted in this area before, single organisation teams are likely to share an organisational culture to a certain extent (e.g. Hinds et al, 2014) and may be less likely to encounter misunderstandings. Also, when misunderstandings or disagreements do arise in single organisations it may be possible to exert organisational pressure to quickly resolve these incidents of discord. Given the subject of study is hidden discord, it is preferable to choose research teams where the conditions for misunderstandings and disagreements are more likely to occur and more difficult to manage.

The fifth criterion is that interviewees should have relatively recent experience of working within a GVT. A degree of retrospectivity is valuable for the topic of hidden discord as these incidents often occur covertly to at least some of the parties involved and so can take time to be understood and revealed. However, if the date of the event is too far from the interview, memories of the experience are difficult to recall. Whilst using a multi-perspective approach is useful in addressing the knowledge process of recall because supplementary and collaborative information can be collected from multiple participants (Sosniak, 2006) all the misunderstandings and disagreements should have occurred no longer than four years before the interview date.

The final criterion for the initial research teams is that the interactions of the team where the misunderstanding occurred should be sustained for more than two years. Much of the GVT literature has worked on short term groups (including 'artificial' groups) (Gilson et al, 2015), which offer only brief snapshots into teams, or have used interviews with a wide range of individuals from a large variety of teams. This is often because access to specific teams is restricted due to lack of trust and commercial sensitivity.

Research teams

From my position as a member of multiple global R&D teams as part of my work as a researcher at the Tavistock Institute, I had access to colleagues across Europe who I have worked alongside and have trusting relationships with. This means that although gaining and maintaining access to cases usually requires particular attention in management research (Hartley, 2004), in my case I had a large pool of teams to select from and contacts who are open to being research participants. I also had access to systematic data such as documentation, group email records and team policies which are all useful in articulating full accounts (Hartley, 2004). My reflexive approach, detailed above, was the main technique for avoiding partiality in my data collection; research ethics of researching teams I have worked in are discussed later in the chapter.

It is important to note that whilst members of these teams were contacted, the incident of hidden discord will not necessarily derive from experience in the team: if the incident occurred in a team which fulfilled my selection criteria, it was permissible. If the incident occurred in another team to the ones listed below, this misunderstanding described was examined through snowball sampling using contacts and access from the interviewee, where possible. These teams were the starting point for interviews as they fulfilled my selection criteria and I have access to team virtual communications.

Description of global virtual teams

The interviewees were initially drawn from six teams, given in Table 3. All teams selected were known to me through my work as a researcher at the Tavistock Institute. For the majority of teams, I was a part of the teams, either in a minor role, as an evaluator, or as an internal project manager; for others I knew of the team from colleagues. This meant that all teams selected were sufficiently known to make a judgement on whether they should be included in the study. As shown in Table 3 below, the teams were selected by following the inclusion criteria: having a variety of significant misunderstandings and/or disagreements, having English as the language of communication, commonality of sector, diversity of organisation type, incidents within four years of the interview, and projects lasting two years or longer. All the teams selected were cross-national partnerships

with a variety of native languages, cultures and information and communication technologies used. The teams each met face-to-face on occasion, though rarely more often than biannually. Therefore, the teams were each hybrid, temporary global virtual teams.

Teams A to E were European, formed to fulfil European funding research and development grants and consisted of partners from at least five countries. Team Z was used as a comparator, having a different structure and challenges being a franchising arrangement between a UK and Chinese organisation, as well as different cultural-linguistic composition. An overview of the teams' characteristics is presented in Table 3 below.

	Team A	**Team B**	**Team C**	**Team D**	**Team E**	**Team Z**
Number of interviewees	5	3	4	8	5	3
Start date of project	October 2013	September 2014	April 2014	June 2017	Dec 2018	Jan 2015
Finish date	October 2016	August 2017	July 2017	May 2021	March 2021	TBC
Project objective	Develop online platform and deliver training	Develop online platform and deliver training through platform	Develop app for public services	Select and support innovative projects	Develop a collaborative online platform	To develop a training franchise
Partnership structure	Overall project manager with each partner leading a work package	Overall project manager with each partner leading a work package	Overall project manager with most partners leading a work package	Overall project manager with each partner leading a work package	Overall project manager with each partner leading a work package	Two separate organisations with a set of selected trainers
Number of partners involved	6	6	10	12	6	2
Countries involved	Italy, Finland, Spain, Belgium and UK	Italy, Spain, UK, Sweden, Belgium	Germany, Belgium, Netherlands, Poland, Italy, Norway, UK	Italy, UK, Netherlands, Denmark, Romania, Spain, France, Portugal, Greece, Germany	Italy, Spain, Portugal, Greece, Belgium, UK	China, UK

Number of core team members	13	25	20	53	21	12
My personal involvement	Evaluator and project delivery	Evaluation lead, no project delivery	Member of research and evaluation team	(Temporary) organisational lead	Organisational lead	None

Table 3 Outline of initial teams for interview sample

Some characteristics are shared amongst project teams A to E. Each team had a designated lead partner who would manage the contract and finances on behalf of the partnership, manage client communications and would, usually, be the organisation where the designated project managers and directors worked. Most projects related to European Union priority areas, such as youth unemployment or digitalisation of learning, and were selected as they fit these areas. The project teams submitted proposals and these formed the contract between client and project team. Each team would undergo an annual or biannual client review, where the client would decide whether the project had progressed towards the objectives laid out in the proposal; if so, the client would release the next tranche of funding. Funding was based on the number of days worked per participant on a cost basis, that is, financing was given based on salary and indirect costs. This makes such projects rarely profitable. Finally, as projects funded by the EU, project teams that represented all regions of the bloc were given priority, which put value upon national diversity.

Below is a description of the project teams, outlining their purpose, longevity, national composition, ICT usage, workflow, success in achieving objectives, and my own role (where relevant).

Project team A

This project is discussed in detail in Chapter 6 where the project team description can also be found. This team was analysed in more detail as it contained the most thorough account of incidents in terms of access to interviewees, reports, meeting minutes, and email records (including incidents that took place over email). This allowed for a more complete crystalised description and analysis of incidents compared to other teams.

Project team B

My role in the project was as the internal evaluator, tasked with assessing the process and performance of the project and project team. Three members from this team were interviewed, of whom two research participants identified critical incidents from Team B, and one interviewee (Berta) preferred to speak about other experiences.

Project B developed an online platform and delivered training through the platform. The aim of the project was to design and successfully pilot a platform to educate online groups of disadvantaged Europeans. The project was funded for three years between 2014 and 2017.

The partnership included six organisations from across Northern and Southern Europe (Italy, Spain, UK, Sweden, and Belgium). The organisational type was diverse, including micro-organisations and universities. The sectors were similarly diverse, including two technological organisations, experts in disadvantaged groups, and evaluators. The team had an overall project manager (who mostly wrote the proposal). The project manager was supported by a project director who had overall responsibility for the project. Responsibility for delivering each work package (that is, strand of work) was given to different partners. After the first year, the project director took up most of the project management duties in the project following several delays to the project which left the success of the project in the balance.

Five coordination meetings occurred for the consortium to meet in person. The technical tools used to manage communication and share documents were particularly diverse. Online calls between all partners were regular and often used not only to update but also to discuss and make decisions. Sub-groups often met on a weekly basis using online group calls. These teleconferences used either Adobe Connect or Skype depending on which partners were present. These online meetings were complemented by a group email system (a consolidated email address that included all members of the team) for communications, Basecamp (for sharing documents on an ongoing basis), and Dropbox (for storing and managing documents).

According to interviewees and reports, though the quality of the project outputs was reportedly low, the project achieved its contractual aims. The project management had notable difficulties in coordinating the partners as they came from a variety of sectors, with different areas of expertise and each had to market and pilot the platform in their own country. Many problems were either technical or blamed on a technical partner who was at one stage at risk of being removed from the project. There were also issues with project partners disagreeing over the basic premises of the programme, including the core definitions of terms and the purpose of the project.

Project team C

My role was as part of the research team, which looked at case studies of social media uses by public sector organisations. Four members from this team were interviewed, however, only two research participants identified critical incidents from Team C, with two others (Carlo and Claire) preferring to speak about other projects.

Team C conducted a European Commission funded research and development project. The aim of the project was to research social media technology and its impact on public sector organisations whilst developing a technical infrastructure that could be used by public sector organisations to leverage social technologies. The partnership therefore had a dual purpose: to develop apps to support the public sector and to research and develop new insights on how social networks can be used by the public sector.

The project lasted for three and a half years in total, between April 2014 and July 2017 and ended one year before the interviews. There were ten partner organisations in total, five partners from Northern Europe, four from Southern Europe and one from Eastern Europe (Germany, Belgium, Netherlands, Poland, Italy, Norway, and UK). The partnership structure was headed by a Project Manager who had the responsibility for coordinating and managing the project (the nominal Project Director played little role in the project and was rarely present). Most partners were given responsibility for leading a particular work package, though the partnership size meant some partners could not do so.

Seven coordination meetings occurred over three years where the consortium met in person. The consortium also held three expert workshops in person which a significant number of Team C members also attended. Online calls (using Gotomeeting) were used to manage the project, initially on a weekly basis and, later, on a bi-weekly basis. These meetings sat alongside a group email system (an email address that distributed to all registered team members) and MS SharePoint (for managing documents and collaborative work).

According to interviewees and reports, the project was successful in achieving its contractual aims. The project management was regular and consistent. The project had few communication difficulties given the size and complexity of the partnership. Collaboration was frequent and designed for in the proposed workplan, though over time research partners had less input in the technology development. Communication was robust and frequent and there was little deviation from the project plan. The main issues were technical with the platform being difficult to implement to specification within the budget given.

Project team D

My role in this team was as part of the evaluation team, assessing the quality of outcomes and processes during the project. Eight interviews for this project were conducted, five of these research participants presented critical incidents from Project D, whilst three others preferred to discuss other projects.

Team D are currently conducting an EU funded research and development project. The aim of the project is to encourage innovation in Europe by funding studies and pilot projects which have high potential for innovation. Concurrent to funding the projects, several partners are offering training and support for project pilots, and research has been conducted by partners on specific innovation topics to support these activities.

The project began three years ago in 2017 and continued until 2022. There are twelve partner organisations in total, with six partners from Northern Europe, four from Southern Europe and two from South-Eastern Europe (Germany, UK, Netherlands, Denmark, France, Italy, Spain, Portugal, Greece, and Bulgaria). The project consortium is the largest of the six globally dispersed teams with 53 members from the various organisations. There is a lead organisation on the project who have a management team of two who share management tasks between them. Leadership is well distributed in the project with five of the partners leading a work package.

Three coordination meetings have occurred for the consortium to meet in person which were attended by up to 25 partner representatives. Due to the pandemic, the final two consortium meetings were held online. Online calls (using Gotomeeting) are used on a semi-regular basis to manage the project, particularly during periods when funding is being decided. These meetings sit alongside a group discussion system using Basecamp which is also used to share documents. Email is rarely used, only for small group and bilateral discussions.

At the time of the interviews, the project was mid-way through, though the majority of pilot funding had been successfully distributed and the project has successfully passed two client reviews. The main difficulties affecting the outcomes so far are related to agreements on the main project definitions, and collaboration across different work packages.

Project team E

My role was as the organisational lead for one partner and therefore mostly managerial. Five members from this team were interviewed, with all five of the research participants identifying critical incidents from Team E.

Team E conducted a European Commission funded research and web community development project. The aim of the project was to develop an online platform for a specific social inclusion sector, which contains case studies of projects from this sector generated by the project team. The partnership therefore split into three roles: research for the case studies, web development for the online platform, and online community facilitation.

The project began in late 2018 and ended in early 2021. There were five partner organisations, three based in Southern Europe (Spain, Italy, and Greece) and two in Northern Europe (UK and Belgium). The project is run by a Project Director, a Project Manager (who work in the same organisation, the lead partner) and a Scientific Coordinator (who works in a different organisation). The Scientific Coordinator wrote most of the proposal and is responsible for wider decisions about the direction of the project. Each partner leads a work package meant to suit their skills and background.

Face-to-face project meetings were held every six months, with three having occurred at the time of interviews. Regular online calls are held monthly using Gotomeeting. One subgroup meets weekly using Skype. A wiki-based file sharing system has been implemented but is little used with most communication occurring through group email.

According to interviewees and reports, the project has been reviewed three times. The project passed review each time and appeared to be on track. The main issues according to interviewees relate to the slow and 'staccato' communication in the team whereby partners only communicate intensely when close to deadlines. This issue may have been highlighted as the project was still at an early stage before the community development platform has been launched, with few collaborative activities.

Project team Z

I have no role in Team Z, though I had discussed it often with colleagues before any interviews had taken place. Three members of Project Z participated in the research and each identified critical incidents from the project.

Unlike Project Teams A to E, Project Team Z was not a grant funded project nor was it based in the European Union. Instead, Project Team Z was a collaboration between an established professional development organisation and a new organisation to set up a new training franchise. The purpose of the collaboration was to coordinate training and deliver training to groups in China. By the end of the collaboration, the franchisee should have built sufficient capacity to deliver the training to the standards required by the franchiser.

The arrangement began in 2015 and continues. The collaboration is between a British training organisation and a Chinese organisation, which is headed by a Chinese alumnus of one of the British company's courses. The British organisation holds the intellectual property rights and expertise for the training. The franchiser offers trainers from a pool of ten members of staff to fulfil training courses in China when the need arises. The Chinese organisation has successfully run over a dozen of these courses and arranges the recruitment, venues, and structure of the programme.

According to interviewees, linguistically, the collaboration is more challenging than the other Project Teams as the British team speak no Chinese and most Chinese trainees do not speak English. During the face-to-face courses and face-to-face meetings, simultaneous translators are used to translate the course content into Chinese and field questions. In between course delivery, a range of ICTs are used to organise the Team, including email, WeChat instant messaging service and teleconferencing software.

Over the past three years the modules have been further refined and the timing more regular as the programme has become established. A total of ten modules have been successfully run since 2016 with a wide range of trainers used. The main difficulties have been over financing the project and whether payment has been based on proportion of profit or days spent by the franchise owner.

Fulfilment of selection criteria

As shown in Table 4, all six teams detailed above fulfil my selection criteria. Besides the comparator Team Z, they are temporary teams formed to deliver research and development projects to fulfil projects funded by the European Commission. Each team had some issues with communication with misunderstandings or disagreements occurring, though the frequency and nature of these incidents was variable from team to team. The teams communicated in English though some code switching occurred in some teams. The five teams contained representatives of between six and 12 organisations in each project, and at the time of the interview, were completed within the last three years and were sustained for at least two years. This means that the interviewees meet the final criteria of selection: they had been members of a GVT project within the last two years at the time of the interview.

Selection criteria	Team A	Team B	Team C	Team D	Team E	Team Z
Language of communication	English, some code switching	English, some code switching	English, rare code switching	English, rare code switching	English, rare code switching	Mandarin and English with translators
Number of incidents of hidden discord	High	High	Medium	Medium	High	High
Sectors	Education, industry, technology and research	Education, industry, technology and research	Industry, technology and research	Education, industry, technology and research	Education, industry, technology and research	Education and consultancy
Diverse organisations	Vary by sector and size (micro to large)	Vary by sector and size (micro to large)	Vary by sector and size (small to large)	Vary by sector and size (micro to large)	Vary by sector and size (micro to large)	Vary by sector and size (small to medium)
incidents within 4 years of interview	Ended 2.5 years ago	Ended 2 years ago	Ended 2 years ago	Current	Current	Current
Project lasted over two years	Yes (3 years)	Yes (3 years)	Yes (3 years)	Yes (4 years)	Yes (2 years)	Yes (5 years)

Table 4 Team details according to selection criteria

In addition to these five EU funded projects, I used a comparator case, Team Z, a British/Chinese collaboration. As examined in the literature review, the degree of socio-linguistic difference is a predictor for misunderstandings and there are likely to be greater levels of misunderstandings in collaborations between East Asian and European organisations. Also, the historical power asymmetries between the regions are likely to filter to interpersonal relations and be productive of misunderstandings and disagreements.

Data collection methods

Data collection methods within the teams were focused on research interviews with team members. I attempted to crystallise the findings from interviews with other primary data from email and online discussion records of the misunderstandings as well as reports, minutes, and policy documents.

Critical incident interviews

The main research data collection method used for the study was semi-structured research interviews using the critical incident approach. Research interviews are conversations with a structure and purpose (Kvale and Brinkmann, 2009). Semi-structured interviews de-emphasise structure, allowing the researcher to follow a more natural conversational pattern whilst still covering a set of questions (Saunders et al, 2009). Semi-structured interviews fit a wide range of epistemological outlooks, particularly those from the subjectivist tradition given their sensitivity to interpret nuanced language. Semi-structured interviews can be used to explore all manner of subjects to the extent they are often described as a principal way to know organisational life (Alvesson and Ashcraft, 2012). As I am using an abductive approach to theory generation, structured interviews (suited to deductive research) and unstructured interviews (suited to inductive research) would be unsuitable to my approach: abduction requires simultaneous building and testing of theory and so research questions should be present which test provisional theory as well as giving room to develop new theories as the interview progresses.

A tension in qualitative interviews is that, whilst explanation is generally related to objectivism, interviews themselves are intrinsically intersubjective. Asking direct questions to an interviewee forces the participant to engage in identity work (Sveningsson and Alvesson, 2003) and to construct an identity vis a vis the interviewer during the interview, a process further complicated given my personal relationship with many of the interview participants. Whilst this familiarity helped in some ways, the process of disentangling layers of interpretation can make it difficult for researchers to interpret the participant's words; whilst sometimes treated as 'truthful' accounts, interviews are subject to the double hermeneutic. Given this, when used alongside a reflexive and multi-perspective approach, interviews can be useful to explore phenomena and intersubjectivity of participants' views. As a study which relies on recall and memory of incidents, one-to-one interviews of this kind may be particularly appropriate (Keightley, 2010).

The use of interviews rather than observations in this case is justifiable for a few reasons beyond practicalities. The current literature does not suggest that serious misunderstandings that compromise team effectiveness are particularly common but when misunderstandings do occur, they can have a serious impact on team effectiveness. If participant observation was used as the primary method, it would come with the risk of few significant misunderstandings being identified during the observation period. The mechanisms that produce misunderstandings and the micro effects of these misunderstandings would be more obvious from ethnography than using research interviews. However, this is an exploratory study given it is the first to look at the particular topic of misunderstandings and disagreements in virtual team settings. In this situation, looking at the issue

of discord using interviews rather than ethnography as the main data collection method allows for assessing a larger set of incidents and the various ways these were managed; this variance was beneficial to building theory on this topic.

Another advantage of interviews in exploring this topic is that misunderstandings and disagreements are usually both overt and covert. As lines of questioning can be developed iteratively when exploring a particular case, research interviews have great access to shared experiences of an event and so the covert discord (those that were noted and not acted upon or recognised by only a few of the participants) was more open to examination and extrapolation during interviews. Skilful interviewing also provides a safe setting to discuss potentially painful emotions such as shame and anger.

The format and length of semi-structured interviews lends them a great deal of flexibility and in recent years academics have innovated with the interview method. Interviews are now often conducted remotely using teleconferencing software such as Zoom; interviewers can use visuals to elicit responses; or interviews can be conducted on the move (Iacono et al, 2016). Most interviews in my research took place on Skype due to the geographical dispersal of the teams. A limitation of this is that persistent technical issues did arise during some interviews which restricted the process. Also, body language cannot be fully interpreted for remote interviews.

The interviews I conducted used critical incident techniques (CIT) within selected GVT cases. The use of a critical incident approach to interviews was specifically selected to grapple with issues of identifying significant misunderstandings and facilitating the discussion of potentially painful experiences. The critical incident approach derives from positivist paradigms but was redeveloped as an investigative tool in organisational analysis within an interpretive or phenomenological paradigm and can be used within multi-site investigations (Chell, 2004).

Example interview questions

CIT explicitly focuses on specific events that are exemplars to explore and contrast accounts. Unlike conventional interviews these incidents can be analysed explicitly and allow the researcher to combine several accounts of an incident whilst not judging which of the voices was ‘truthful’ (Chell, 2004). As an illustration, four of the questions for the pilot interviews have been outlined below:

What kinds of misunderstandings[8] occurred? (Prompt: How common were these kinds of misunderstandings in this team? Did these misunderstandings lead to communication difficulties?)

From this project, can you give me an example of a misunderstanding which you consider a bad or unhealthy misunderstanding? (Probe: how long did it go on for, how uncomfortable was this for you, (how) was recognised, (how) was it managed, what were the effects for you/the project of this misunderstanding)

Why do you think this misunderstanding occurred? (Prompt: power differences? Cultural backgrounds? Different language patterns as non-native English speakers? ICTs? Language competence? Ambiguity in communication?)

How do you think this misunderstanding was handled? (Probe: Would you have done anything differently in retrospect? Can anything be done to prevent this type of misunderstanding?)

A full list of interview questions is shown in Appendix 5.

To aid recall, once participants agreed to be interviewed, they were requested by email, to think back to any misunderstandings that occurred during their work in the global team prior to the interview. During the interview, they were probed and where necessary, I mentioned incidents that had been discussed by others or ones I had recalled personally. At times, respondents did not recall the same incidents, or had far fewer recollections, and this discrepancy was used as data for interpretation of incidents (for instance, see incident A(iv) in Chapter 6).

Interview sample

Whilst each team contained at least 10 individuals from at least six organisations, in each team I interviewed at least three interviewees to understand incidents from multiple perspectives. I purposefully sampled the initial interviews, beginning with participants who did not have English as their first language: the preceding literature review suggested that poorer linguistic skills are a predictor for being misunderstood (Pietikäinen, 2018; Jenkins, 2000). Following the initial interview, I snowball sampled further interviewees based on the nature of the misunderstandings identified, to

[8] As noted in Chapter 1, the research interviews focused upon misunderstandings, and incidents of disagreements and non-understandings appeared in the analysis stage as these were often characterised by research participants as ‘misunderstandings’.

ensure that the perspectives of the key actors involved have all been accessed. The initial sample was taken from an overall population of 81 team members across the six GVTs.

Not all interviewees agreed to be interviewed or wished to talk about an incident from the teams outlined above. The mix of purposive and snowball sampling ensured that the initial limited sample did not restrict me from following up on significant misunderstandings that occurred in different settings. This design means from the sample covers a wide range of settings with a large number of misunderstandings and disagreements to analyse, rather than being restricted to six teams whose misunderstandings and disagreements may be less significant (or more poorly remembered) than others.

The list in Appendix 4 presents in outline the characteristics of the interviewees in this study along with their pseudonyms, role in case study, sectoral background, country of origin, and languages spoken.

Following completion, each interview was transcribed by myself or a professional transcriber. Due to my focus on sociolinguistics, the transcription process is particularly necessary as the wording of interviewees' responses is meaningful. As the specific language competence of an interviewee is also of interest, transcription was necessary, despite being either very time consuming (Saunders et al, 2009) or expensive.

Email documentation

The difficulties of assessing an interviewee's account are compounded when the only data available is the interview itself. When observed behaviour cannot be used to contrast with the opinions stated in the 'front stage' of an interview setting, researchers can simplify, misconstrue data or in some cases even be misled.

To consider and crystallise my own interpretations of others more thoroughly I also analysed my interpretations by following up research interviews with investigations of internal policies, reports, meeting minutes, online communications, and email records, where these are accessible (as they are in the six teams outlined above). The written outputs of the teams formed a crucial part of the analysis to help the crystallisation process and ensure that my research findings are as data-based as possible.

The primary written evidence available to me in most cases was email interactions. These are from the group email address only, that is, emails that go out to the entire project team. These are therefore 'front stage' communications and reveal group dynamics as well as individual relationships, leadership and how participants took up their roles. Email was the primary day-to-day

communication in Teams A, B and C; these recorded virtual interactions provide a valuable source of data on how the identified misunderstandings played out at the time. From each of these teams, I have collected over 1000 emails from the beginning of the projects until they each ended. In addition, some project teams also used other online communications such as Basecamp, which integrated file sharing and communication. Communications data was scraped from these platforms as part of the data collection.

As well as team communications, other documents were also available to be collected and analysed. Where interviewees referred to project deliverables (such as reports), these were collected and examined as artefacts where misunderstandings played out. Finally, the team policies that regulated and formed the context of interactions was also used as context where necessary.

Due to the time-consuming nature of finding, matching, and analysing written documentation, the 'critical incident' itself remained the object of analysis, and documents were brought in with respect to individual incidents rather than teams. As mentioned above, in Chapter 6, incidents in Team A were focused upon due to the rich collection of documents, a mix of misunderstandings and disagreements which referred to lengthy email exchanges meetings, reports and workshops. Uniquely amongst the six teams, these incidents were both fully documented and available to me as a researcher. In the case of Team A, incidents were fully investigated and ordered chronologically to build a history of discord in the team, demonstrating how the first seeds of a disagreement or misunderstanding could be far reaching and how the final resolution of an incident could take weeks, months or over a year to fully resolve once revealed.

Research ethics

As the interviews are likely to bring up feelings related to the memory of misunderstandings and disagreements, interviews were often emotionally engaging but unlikely to result in psychological damage. The investigative and learning angle to incidents also may have helped to psychologically contain and contextualised these incidents. However, there are two significant ethical issues related to the research: *confidentiality* and *reputational damage*.

First, confidentiality was ensured in interviews and in the written outputs of the research. Whilst the interviews are of critical incidents and built a picture of a set of misunderstandings and disagreements from multiple perspectives, I did not share details of what other research participants said during other interviews to ensure confidentiality whilst interrogating accounts for discrepancies. In the written outputs of the research, I used pseudonyms for the individuals and the projects so that it will not be possible to trace interview responses back to individuals. Meeting locations were also changed. Any emails used removed personal information or anything which could identify the

subjects of the emails. Public reports were not quoted to ensure that a search engine could not identify the project.

Related to confidentiality, it is beholden on the researcher to protect the organisations who participate in the research from reputational damage as far as possible. As a study of misunderstandings and disagreements, there were examples highlighted which related to poor communications and poor delivery of work, and these would be potentially damaging if the participants involved in these practices are identified. This is neither necessary nor desirable as the research is focused on learning rather than blame for past mistakes. Due to this risk, I have secured consent from the internal teams I worked with on these projects at Tavistock Institute as well as from the CEO of Tavistock Institute, who gave me a wide remit to collect data from any staff or partners involved in the selected projects. For each research participant I also secured verbal informed consent which outlines the possibility of reputational damage as well as the steps taken to mitigate this.

For emails used in the research, consent was gained verbally at the beginning of the interview for direct research participants, as well as being included in the information and consent form. For those who did not agree to be interviewed but whose emails were quoted in the thesis text, written consent was gained by email. All attributable email quotes used in the thesis were included in the email text to these participants, as well as the thesis in email attachment with page number references so that participants could understand how their quotes were used. Emails were only used in a limited way in the thesis, where a complex discord event occurred which needed additional data to explain what happened during the event; this minimal approach was used in part due to the additional ethical risk of identification and reputational damage using direct email quotes.

Data analysis

Principles

As outlined above, I used an abductive approach to theory generation and testing. This means that to generate robust insights into the data found, my research cycled through iterative stages of theory generation and theory testing following abductive reasoning (Tavory and Timmermans, 2014). My analytical approach used constant comparison in coding and analysis (Locke, 2001) to allow for comparison between incidents.

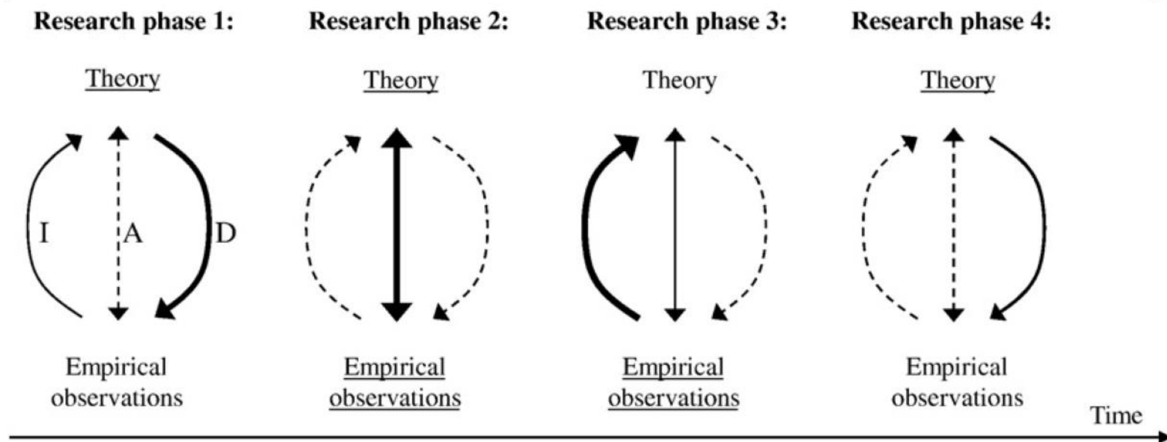

Figure 5 Example of an abductive research process as an evolving mix of theory building and empirical observations (adapted from Javensivu and Tornroos, 2010)

In abductive analysis, the researcher builds from existing literature to further investigate and build theories which can result in 'surprising' results (Sarker et al, 2018; Tavory and Timmermans, 2014), in this case with respect to the GVTs and sociolinguistics literature. As Figure 5 shows, abductive research processes can cycle between theory building and empirical observations which check these theories. These activities differed depending on the phase of data collection: the start of the research focused on theory building with few empirical observations. The second and third phases were more abductive as the incoming data reforms the initial theories and gradually the process becomes more inductive with open coding. The final stage comes when the findings are more crystallised and focuses on testing the theory that has been developed through this iterative process.

Research phase 3 in Figure 4, which requires philosophical induction, followed the Gioia et al (2013) approach to data analysis. This was used to ensure that the qualitative data analysis approach was sufficiently rigorous to ensure that each theoretical claim would be traceable and transparent and that my assertions can be justified. Such rigour is often seen as required in qualitative research to combat the critique that qualitative researchers engage in "creative theorizing on the basis of rather thin evidence" (Gioia et al, 2013: 18). This criticism is particularly salient for abductive research which some see as merely searching for 'the unexpected'. By grounding the coding process in a recognised and rigorous qualitative analytical methodology, some of these critiques are less salient.

Memory is also an important consideration in analysis of the research findings as recall during interviews is notoriously difficult to rely upon if not handled carefully. According to Keightley (2010), "Remembering, whether involving individual, social or cultural representation of the past, is a process which involves selections, absences and multiple, potentially conflicting accounts"

(Keightley, 2010: 59). Remembered narratives do not neutrally reflect experience, as with any data, spoken memories represent an ongoing process of reconstruction (Keightley, 2010). These considerations are a key reason for matching interviews with documentary data and gaining multiple perspectives upon each incident wherever possible. The symbolic and situational nature of remembering was also a reason for mostly selecting teams which I had also been a part of. Following Keightley (2010) and as explained in the section above (Reflexivity in research practice), I also used reflexive processes in which my position as the researcher was reflected upon to understand my role in co-producing remembered narratives and reflections on remembering, and to understand and interrogate my situated position in order to interpret interview findings.

Procedures

As interviews were completed and transcribed, the files were uploaded to NVivo for coding and analysis. In addition, collated emails, meeting minutes, documents and reports were also uploaded to NVivo and categorised by teams. After the initial collation was complete, three rounds of analysis were undertaken.

The first round of analysis involved coding of interview transcriptions. This process followed the Gioia et al (2013) method of first order coding, second order coding and creating a data structure. For first order coding, an unstructured group of codes was created, the language for which was from the research participants' utterances as far as possible. As much as possible, first order codes adhered faithfully to informant terms (Gioia et al, 2013). This process resulted in many overlapping categories such as 'email', 'asynchronous communication', 'message boards', 'Basecamp' which were later rationalised into a single first order concept ('Email or other asynchronous communication'). This eventually resulted in 81 first order concepts.

The second round of analysis was the coding of second order themes. Second order themes are used to identify clusters of themes from the first order themes. These are not only tied to interviewees utterances but also literature, as the exercise is not merely descriptive but engages with whether the emerging themes suggest concepts that might help to describe and explain the phenomena under observation (Gioia et al, 2013). In this phase, second order codes clustered thematically related first order concepts; from the previous example, 'Email or other asynchronous communication' was related to the second order theme of 'channel specific communication'. Twenty-two second order themes were coded.

Further second order coding was then undertaken to generate aggregate codes. The aggregate coding process related themes to patterns in aggregate, often associated to my research question categories. This distilled the emergent second order themes even further into second-order

‘’aggregate dimensions’’ (Gioia et al, 2013). For example, in this phase, ‘channel specific communication’ was placed within the aggregate code of ‘Patterns of communication’.

This process created seven aggregate codes, three of which related to conditions producing hidden discord (virtual team context, patterns of communication, and exercise of power and leadership), two which related to the effect of hidden discord (emotional reactions to hidden discord, and effects of hidden discord), and two relating to management of hidden discord (resources preventing discord, and triggers for hidden discord).

The coding process was completed by creating a data structure. This process is useful to configure data into a sensible visual aid allowing an easier write up of the analysis as well as providing a graphic representation of how the researcher progressed from raw data to terms and themes in conducting the analyses (Gioia et al, 2013). The data structure process allowed for further identification of overlapping categories and simplification. The data structure also included illustrative quotes from interviewees from each first order concept to demonstrate what is meant by each code. The data structure is presented in Appendix 2 and is the basis for the data findings relating to conditions, effects, and management of hidden discord in Chapter 5.

The second stage of analysis was the analysis of critical incidents. Again using NVivo, this process utilised the cases function to categorise incidents from interviewee accounts. This process was aided by the structure of the interview which explicitly asked interviewees to identify incidents of discord. All but one interviewee identified more than one incident and interviewees often discussed the same incidents. Where supportive documentary evidence existed, this was also categorised with a case. However, only interviews were used to identify incident cases due to time constraints.

Once all incidents were identified, a typological analysis began using the case classification function on NVivo. Following the abductive approach, this classification process led to further research into literature as most incidents could not be classified as misunderstandings, many were disagreements and non-understandings. Ultimately, the classification designated incidents by ‘topic’, ‘type’, sub-type’, ‘resolution status’, and ‘codes’. A final clustering was performed using the NVivo visualisation tool to identify codes using in different incidents; this was used to compare overall incident types, incident sub-types and individual incidents. The result of this analysis is shown in Appendix 3 with the full description and categorisation of incidents and in Chapter 5 under the typology section.

The final stage of analysis was analysis of incidents in Team A. As the overall research objective was not to find an ‘ideal type’ of hidden discord, but to discover the emergent and contingent pathways and impacts of hidden discord, this final stage of analysis was conducted focusing upon incidents in

one team. The team selected (Team A) had the largest number of coding references (28) and was the only team where each incident had multiple perspectives or relevant documents, in part as there was a rich documentary repository for this team and also as five team members had been interviewed and each gave rich examples.

The results from Team A required further analysis. First, team background information was collated and presented to provide deeper context. Second, incidents were identified, refined, and further coded in the documentary data to a much greater degree than for other teams. This level of documentary analysis was only possible for Team A as it required several months of searching, reading, and coding email and document data. The analysis largely used the existing coding and incident categorisation. However, this analysis was ordered chronologically which required more investigation and crystallisation present the stages of each incident, as well as validation by Team A members. This analysis is presented in Chapter 6.

Summary

My philosophical preference is for a relational ontology and theory of knowledge suggesting reality is accessible to a researcher only obliquely and through the unreliable prism of others' experiences. This has led me to develop data quality considerations that reflect that knowledge of the researcher is influenced by the social world they inhabit, particularly interactions with research participants. Finally, my research findings were communicatively checked through three stages. I took a qualitative interview approach to my research using critical incident interviews. My interviewees were members of global virtual teams within the past two years and discussed incidents of misunderstandings and disagreements within these team settings. I selected six initial teams for the sample of interviews to be taken from. Using an abductive approach, my coding used the Gioia et al (2013) approach and typological analysis.

Chapter 5 Primary research findings: typology, conditions, effects, and management of hidden discord

Chapters 5 and 6 present the research findings from the study. This chapter examines the wider conditions, effects and management of misunderstandings and disagreements. This chapter reviews the incidents to develop a typology of different cases, and to understand the conditions, effects and management techniques used across all incidents. In doing so this chapter provides a framework for answering the research questions of the study:

1. What **types** of hidden discord can be seen in the communications of globally dispersed teams?
2. What **conditions** generate hidden discord in the communications of globally dispersed teams?
3. How does hidden discord **impact** global virtual teams?
4. How can the effects of hidden discord in globally dispersed teams be **managed**?

This section presents the main findings of the primary research. The structure follows the coding framework developed during the analysis phase of the research as presented in the methodology: analysis was iterative as following the abductive approach, beginning in the data collection stage. Apart from the first section on the types of hidden discord, the findings are presented following the data structure, with aggregate codes examined through the second order themes. First order concepts are not directly presented to ensure clarity of expression, though these directly inform the analysis. The data structure is presented in Appendix 2.

Teams were each given a letter and interviewees that participated in these teams were given a pseudonym which began with the relevant team letter and reflected their cultural background: members of the Chinese-British collaboration in Team Z were Zachary, Zhenzhen and Zongmeng. Incidents were coded using lower case Roman numerals: for example, the first incident in Team A was incident A(i), and third incident in Team C was incident C(iii). Incidents that were derived from teams other than the six teams were labelled ‘O’, so the tenth incident from another team was labelled incident O(x). To aid the reader, the topic of each paragraph is highlighted in **bold** throughout the analysis sections. A description of the incidents can be seen in Appendix 3.

Typology of critical incidents

Quotes from interviewees described most incidents as misunderstandings or did not have a particular term for the difficulty encountered. This was true for most interviews, where it became clear that there was a limited vocabulary available when discussing incidents that were under the

surface of interactions. Hidden disagreements were often called ‘misunderstandings’ by interviewees, showing that it was difficult to conceptually delineate an unnoticed disagreement from a misunderstanding, a practice noted in pragmatics literature. This indicates that there are few appropriate terms available to describe this phenomenon. This gap in practice reflects the **paucity of specific terms in management scholarship on the topic of communication breakdown** in globally dispersed teams and lends further credence on the importance of answering my research question to identify types of hidden discord in these teams.

Whilst the interviews were initially designed to identify misunderstandings in particular, other incidents of hidden discord were identified by interviewees which were deemed by the participants to be related to misunderstandings. Each incident of discord was **coded as a case in NVivo** and, following several rounds of analysis, distinct categories of discord were identified according to the nature of the incident: whether the incident was a result of communication or interpersonal disagreement, who was involved, the extent that the incident occurred subjectively or was recognised within a group, and how long the incident lasted for.

When incidents were mapped against teams, hidden discord appears to be a **common occurrence** in globally dispersed teams. Each team had at least three major incidents of hidden discord and at most five. Three interviewees identified six separate incidents; there were no interviews where no incidents were identified, and only one interview which only identified one incident. This implies that incidents of hidden discord are a pervasive and persistent phenomenon amongst participants of globally distributed teams.

Topics of discord	Resolution status	Types of discord
Interpretation of words	Quickly resolved	Nonunderstanding
Task	Resolved	Misunderstanding
Role	Partially resolved	Hidden disagreement
Norms of behaviour	Unresolved	Open disagreement
Purpose of team		

Table 5 Typology for incidents of hidden discord

The categorisation process coded five topics of discord (interpretation of words, tasks, roles, norms of behaviour, purpose of teams); and the resolution status of the incident was coded as quickly resolved, resolved, partially resolved and unresolved. Following this, four broad types of ‘discord’

were coded: nonunderstanding, misunderstanding, hidden disagreement, open disagreement. After further analysis, sub-categories of misunderstanding and hidden disagreement were identified and coded. The remainder of this section presents an analysis of this typology in detail and Appendix 3 presents all incidents according to the categorisation.

Topic of discordance

Following identification of critical incidents, incidents were classified according to the topic of discord, that is, what the misunderstandings and disagreements concerned. Five topics were identified which are explored below: interpretation of words, tasks, roles, norms of behaviour and purpose of team.

Interpretation of words

This topic covers discord over a specific word, concept, or message. In these cases, there were discrepancies in how different participants in a partnership understood a particular linguistic object, whether a specific word, a working concept, or a message. For example, cases falling into this category cover difficulties that arose over a misheard word (incident O(xv)), a vague email (incident O(iii)) or different sectoral understandings of a concept (incident A(i)).

Task

This topic covers disputes over specific tasks that were to be performed. In these cases, misunderstandings and disagreements arose over the interpretation or execution of a task, whether misunderstanding instructions or disagreeing with how a task should be carried out. For example, ‘task discord’ includes a report that was undertaken by non-experts who misunderstood the type of report needed (incident A(iii)) and a task that was unexpectedly not shared amongst partners (incident D(i)).

Roles

This topic covers discord over a role to be undertaken within the partnership. In these cases, discord was over who performed roles and how roles were taken up in teams, whether partners were dissatisfied with a specific organisation or individual, or participants did not understand the role of some members of the partnership. For example, role discord included disagreements over who was the primary manager in a project (incidents A(iv) and B(iii)), who to ask for administrative support (incident O(ii)), or how to deal with a partner who was considered by some members to be incompetent (incident C(ii)).

Norms of behaviour

This topic concerns discord over group mores of behaviour within the group. In these cases, discord was over how certain team participants behaved in group settings, whether they were viewed as acting immorally, disruptively, or irresponsibly. Uniquely, incidents over norms of behaviour were most often nested within other incidents, that is, they occurred during discussions of incidents, often due to the manner in which in the incidents was being handled. For example, incidents of discord over norms of behaviour included a project manager shouting repeatedly at a project partner during a misunderstanding (incident A(ii)), a partner continually and publicly discrediting another partner as incapable during a disagreement (B(i)), and low-quality standards being unacceptable in designing a logo (D(iii)).

Overall purpose of team

The final topic concerns the overall purpose of the team. This was the widest topic of discord, concerning disagreements over the overall goals of a project. For example, discord over the extent to which a project was a research project or a development programme (incident C(i)) or the extent to which a project should be focusing on sustainability or fulfilling the requirements of the client (incident A(iv)).

The frequency of the primary topics of discord are shown in Table 6.

Topic of discord	Number of incidents
Interpretation of words	12
Task	16
Role	11
Norms of behaviour	10 (8 secondary)
Purpose of team	5
Total	54

Table 6 Summary of cases by primary topic of discord

As Table 6 shows, there are only small differences in the number of incidents on the topics of words, tasks, or roles. However, in many cases, secondary topics were encapsulated within a primary topic. The most common ‘nested’ topic was norms of behaviour. Whilst there were two cases where a dispute was primarily concerning norms of behaviour, eight other instances of discord had secondary disputes on behavioural norms that underlay a primary topic, such as a task or role. In

these cases, such as incident A(ii), a primary misunderstanding about a marketing plan was accompanied by a separate, hidden disagreement about the aggressive behaviour of the Project Manager. Fully resolving this misunderstanding also required addressing the facilitator's behaviour.

Types of hidden discord

As noted in the introduction and literature review, the analysis process found that many examples of misunderstandings were found under analysis to be another type of discord: hidden disagreements. Whilst both misunderstandings and hidden disagreements feature lack of harmony between people in a group, there are significant differences between these categories identified in the typological analysis. The fundamental difference between misunderstandings and hidden disagreements is that misunderstandings are a result of erroneous communication whilst hidden disagreements remain hidden because insufficient communication on a particular topic. The major feature of both misunderstandings and hidden disagreements is that they are under the surface of interactions. Both may only be revealed through communication. In both cases, erroneous assumptions are made about the basis of co-working. Once revealed, a misunderstanding becomes understanding (or nonunderstanding), whilst a hidden disagreement becomes an open disagreement upon exposure.

As is shown in the case study incidents from Project A in the following chapter, in practice, hidden discord types are often overlapping, so that realising a misunderstanding may also reveal hidden disagreements in the same interaction, as in incident A(iv). This is likely because of the frequency of hidden discord in globally dispersed team and because the opportunities for in depth discussion in these teams are rare yet intense. Interactions such as face-to-face meetings provide a rare opportunity to bring discord to the surface and so tasks, roles and norms that have developed have the chance to be examined and queried by the group. When these incidents of team divergence are identified there are often found to encapsulate several issues in one, for instance, if a manager reacts angrily to a misunderstanding, a latent disagreement about norms of behaviour can become revealed in response as in incident A(ii). The revelation of unresolved discord is therefore a dynamic phenomenon that can trigger a cascade of other incidents.

This analysis suggests that globally dispersed teams often encounter both hidden disagreements and misunderstandings, which supports my assumption that concealed discrepancies are a common phenomenon in globally dispersed team. These incidents are significant because they are simultaneously indicators of underlying issues and destabilising events that can alter the pathway of a project or team. The relative frequency of these incidents is shown in Table 7, again displaying the primary type of discord.

Type of discord	Number of incidents identified during analysis
Nonunderstanding	4
Misunderstanding	19
Hidden disagreement	31

Table 7 Summary of cases by type of discord

Table 7 shows that the two most common forms of incident were hidden disagreements (31) and misunderstandings (19). Nonunderstandings were a small minority of cases, consisting of four of the 54 coded incidents. Given that interviewees were asked to recall 'incidents of misunderstandings' it is surprising that most incidents were disagreements. This implies that either misunderstandings are less frequent, less memorable, or less recognisable than hidden disagreements in globally dispersed teams, or that interviewees wished to discuss disagreements but preferred to label these under the more neutral label of 'misunderstanding'.

Table 8 below shows the clustering between the type and the topic of discord.

Topic of discord	Purpose of team	Norms of behaviour	Role	Task	Word/ Content
Type of discord					
Hidden disagreement	5	1(8 secondary)	9	6	2
Misunderstanding		1	1	8	9
Nonunderstanding			1	2	1
Total	5	2 (8)	11	16	12

Table 8 Summary of cases by topic of discord and type of discord with most common topic highlighted

As shown in Table 8 above, the topics of discord are generally clustered between different types. Discrepancies on norms of behaviour and the purpose of teams are almost exclusively hidden disagreements. Similarly, discord on how a role is undertaken is nearly always a hidden disagreement. This exclusivity is perhaps because misunderstandings on how to behave, how to take up a role or why a team has been formed are rare amongst experienced professionals working in international teams. Whilst misunderstandings may occur about role, norms, and purpose, these may be quite mild and easily remedied. Disagreements on these topics require difficult dialogue which is memorable to interview participants: for instance, many of the disagreements on roles were either about how the project manager was acting or about the removal of an underperforming partner, both of which often require a form of power struggle to resolve.

Conversely, hidden discord concerning words/text is usually the result of misunderstandings rather than hidden disagreements: where disagreements on words did occur, they were the result of different sectoral definitions of words such as 'competence' or 'manager' in incident A(i).

The exception to this relationship between topics and types is discord concerning tasks. Discord around tasks is common across all types of discrepancy, most commonly misunderstandings. This reflects that work tasks are a likely vehicle for both failures in knowledge exchange and for conflicts.

Subtypes of hidden discord

Whilst the labels *misunderstanding* and *hidden disagreements* are helpful as broad categories, the level of diversity within these types meant that further definitions and clustering is needed toto create a typology of hidden discord, which was internally consistent, relevant, and useful to the management discipline. The remainder of this section provides details on what types of hidden discord were identified through the analysis, with a summary diagram presented below.

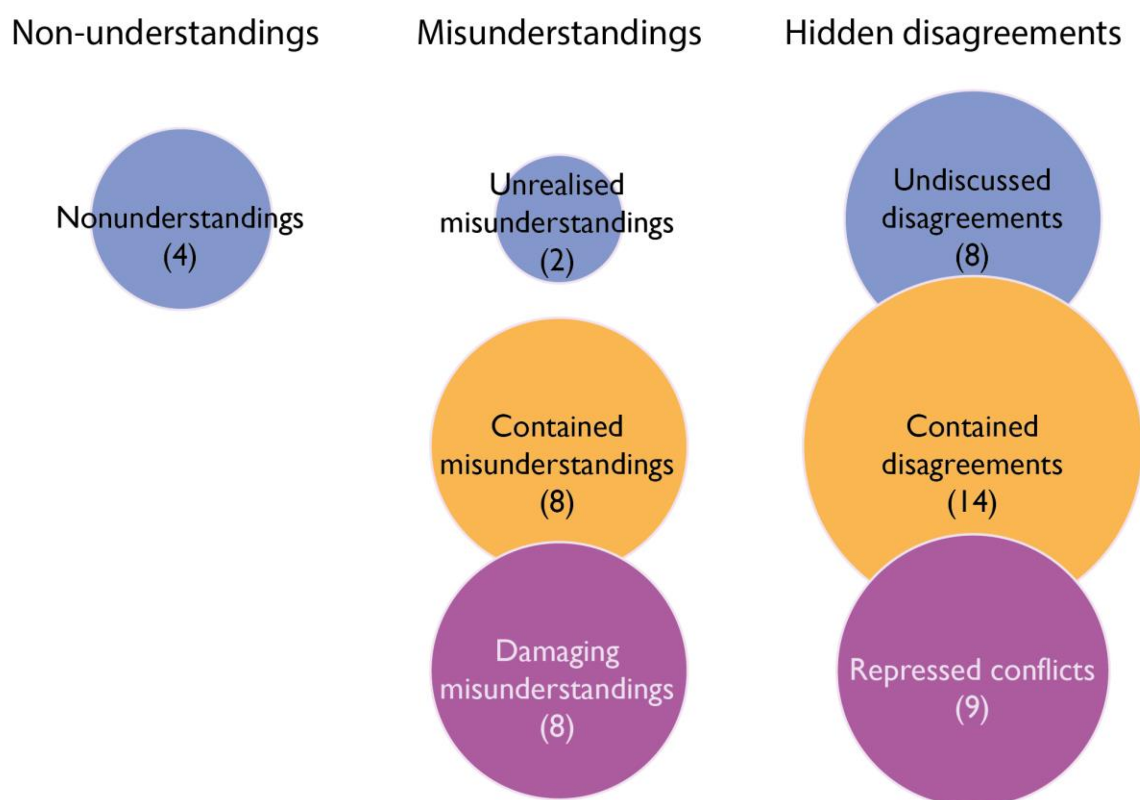

Figure 6 Typology of hidden discord in globally dispersed teams

Nonunderstandings

As shown in Chapter 3, a nonunderstanding is a state of partial ignorance, in that the hearer is cognizant that their understanding does not match that of the speaker. Three cases of

nonunderstanding were categorised: incidents D(ii), O(ii), O(xx), and E(i). As an illustration, in incident O(ii) project partners did not understand who to ask for administrative support despite being told several times over email. After the relevant administrator was formally introduced during a face-to-face meeting the nonunderstanding was resolved.

Nonunderstandings were united in several respects. First, they each resulted in lost time and uncertainty when the recipient was unaware on how to act. Second, slow and ineffective communication were the cause of the nonunderstandings. Third, each were solvable through knowledge exchange: once the holder of the information effectively shared this knowledge, the nonunderstanding was over. Finally, beyond frustration, the emotional impact of the nonunderstandings was mild as the party which did not understand was aware of their ignorance and managed to contain their anxiety. In these cases, the people who lacked understanding were not put in embarrassing positions by their lack of knowledge.

Despite only four incidents being identified, there is some indication that nonunderstanding may be a common state in GVTs. For instance, in incident O(ii) participants did not understand the information by email and had to be told face-to-face: given the scarcity of face-to-face meetings in these teams, the number of nonunderstandings may grow between meetings. However, nonunderstanding does not appear to be a highly significant event in globally dispersed teams, rather, they are a source of frustration that may produce a poor atmosphere for collaboration, especially when there are few opportunities to seek understanding, such as through regularly scheduled telephone conferences.

Misunderstandings

In all instances, the misunderstandings categorised were a result of a misreading or mishearing by one party in a globally dispersed team, where the listener had a divergent interpretation of the speaker's meaning, following the definition in Chapter 3.

Misunderstandings in all cases followed ineffective communication, whether a recipient was engaged in dialogue or misunderstood a text. This is because misunderstandings are a result of a failure in the calibration process, where listeners (or readers) fail to effectively check their understanding before proceeding. In globally dispersed team, calibration was utilised differently depending on the synchronicity of the communication medium: sense-checking was most frequent in face-to-face meetings, and least frequent when reading written outputs. Therefore, misunderstandings were most likely to form between face-to-face meetings and were often revealed during such meetings. Because opportunities to check understanding are so variable in globally

dispersed team, some instances of misunderstandings lasted for months, in others, misunderstandings lasted a matter of seconds.

As shown in Figure 7 below, three sub-types of misunderstanding were found through the interviews. Following grounded coding of the interviews and the identification of incidents, several rounds of categorisation were undertaken focusing on the pathways of misunderstanding and the aftermath of realisation which resulted in three subtypes being identified. Each subtype had an initial point of communication when one party misunderstood another (point A). Following this initial communication, the misunderstanding either went unrealised or was realised (point B). Where realisation occurred, this was either resolved in a way which was functional and contained within the team, or was partially resolved/unresolved, and damaging the team's effectiveness to reach their objectives (point C).

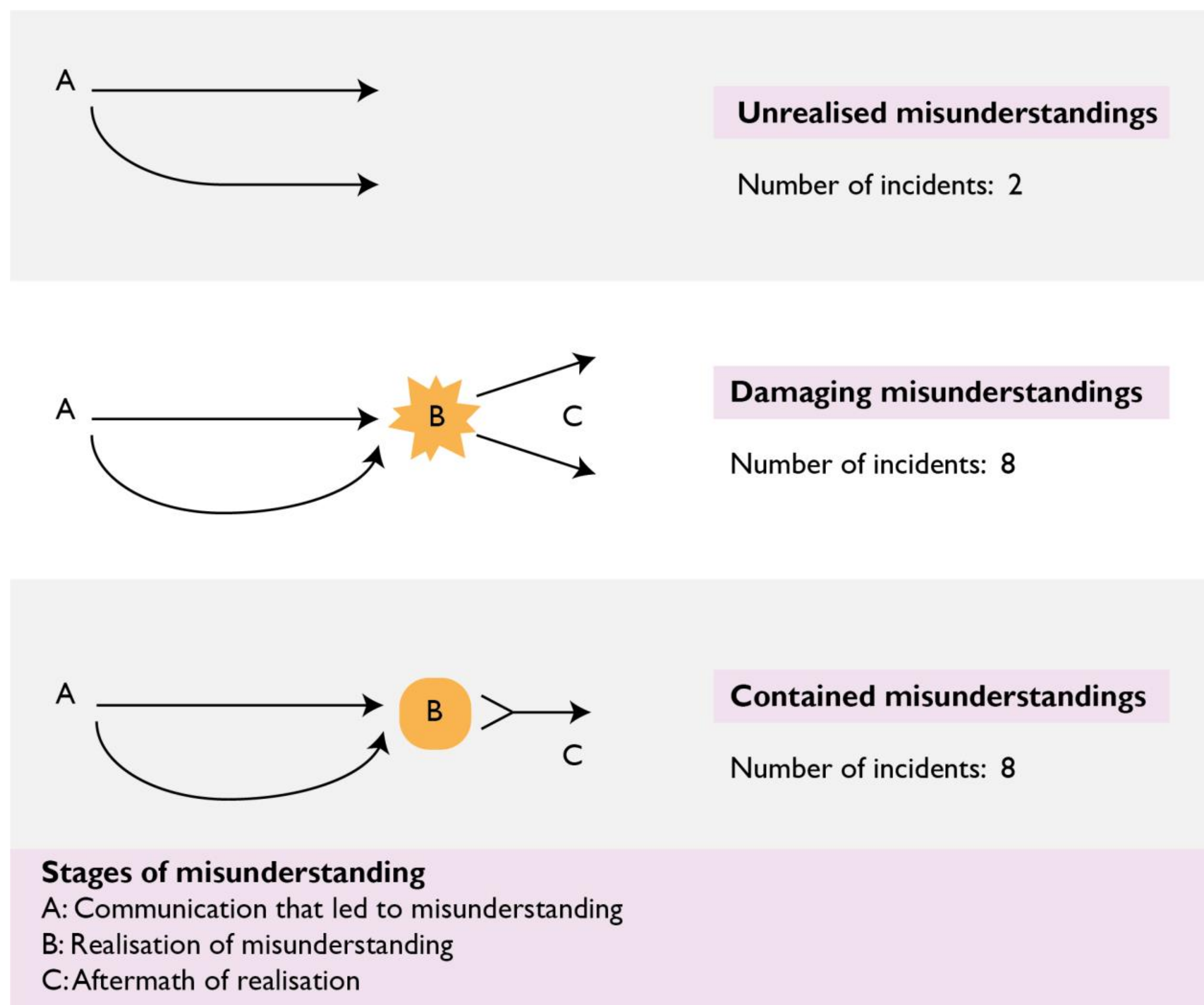

Figure 7 Sub-typology of misunderstandings identified in research interviews

These misunderstanding subtypes are explored in detail below.

An **unrealised misunderstanding** was the least commonly recorded type of misunderstanding and least common overall. This type is introduced by Hinnenkamp (1999): in an unrealised misunderstanding there is no recognition of misunderstanding by the main participants, though as shown in the examples, observers may notice but do not act to address the misunderstanding. In unrealised misunderstandings, the main parties (listener and speaker) do not realise that a misunderstanding has occurred. This type of misunderstanding is, by definition, not resolvable until at least one participant recognises the misunderstanding.

Two cases of unrealised misunderstanding were found through the interviews: incidents O(vi) and O(vii). For illustration, incident O(vi) was a translation of documents which was outsourced following the end of the project. Some key terms were mistranslated which made the document of little use in the relevant industry.

In both cases, there was no opportunity to calibrate and check the understanding; dialogue to clear the initial ineffective communication was not possible or not deemed worthwhile. This resulted in confusion and frustration in both cases and in incident O(vi) meant that the translated documents were not "very useful for people in the fields" (Clovis).

The small number of unrealised misunderstandings cases is notable yet it is unclear whether this is due to this type of misunderstanding being unusual in global teams or whether the lack of cases is a methodological issue. It is possible that many unrealised misunderstandings do occur but are unseen. Also, given that recall of cases relied on the memories of team members interviewed, unrealised misunderstandings are possibly the least memorable type of misunderstanding given that there is no *event* of realisation or certainty that what they observed was a misunderstanding. It is worth noting that the two cases of unrealised misunderstandings occurred either at the end of projects or during a short interaction (a conference in incident O(vi)). For long standing teams lasting several years, even if using computer mediated communication, there are opportunities to realise misunderstandings and so this type may be unusual in long-standing globally dispersed teams.

The joint most common type of misunderstanding was **damaging misunderstandings**. A damaging misunderstanding is a misunderstanding which is revealed but has a 'negative' impact on team relationships and processes, leading some members of a team to split or diverge from the wider group. Eight cases of damaging misunderstandings were identified in the interview data: incidents A(ii), A(iii), Z(i), Z(ii), Z(iii), O(iv), O(xi), and O(xxi). For illustration, incident A(ii) was an incident when a partner produced the wrong type of document in place of a marketing strategy. This

misunderstanding was only noticed in a face-to-face meeting, where it was presented and angrily denounced.

Such damaging misunderstandings are not described in the literature, but the cases identified in this study have several common features that are not shared with other types of misunderstanding. First, five of the eight damaging misunderstandings related to tasks. The ‘fault’ in the tasks could be identified relatively easily, and the negative outcomes were concretely related to the work and the emotional impact on the people at fault. Second, there were consistent underlying issues in the communication amongst the team and leadership style of managers, including communication avoidance (incident O(iv)), lack of facilitation (incidents A(ii) and A(iii)) and cultural clashes in communication (incidents Z(i), Z(ii) and Z(iii)). Third, all misunderstandings of this type took a considerable amount of time to be revealed. This meant that the work produced during the misunderstanding had been developed for some time, and revisiting the task was at great cost to the project. Finally, all eight cases resulted in ‘lost time’ for the project, when what were perceived to be ‘mistakes’ had to be ‘corrected’. This correction process negatively impacted on personal relationships, especially trust towards the partner who misunderstood.

In these cases, the damaging misunderstandings created “*unpleasant situations”* and were “*bad for relationships*” (Anna). The listener (who misunderstood the task) felt embarrassment and shame, whilst the speaker (who was misunderstood) was angry, frustrated, and distrustful. Unlike the splits in teams observed in studies such as Hinds et al (2014), power struggles were not generally a part of this type of misunderstandings. In all cases, the partner who misunderstood self-professed to have below average English language proficiency and admitted a lack of confidence in communication. Those who misunderstood had their status in group damaged through their participation in these incidents, and either made to correct their ‘mistake’ or be deemed incapable of doing so.

This type of misunderstanding is particularly pertinent to global teams for several reasons. Lack of English proficiency (whether relative to the team or in absolute terms) is common in many international teams, and especially so when partners are based in different countries and speaking English is not part of daily experience. Highlighting differences in language ability affects group coherence and likelihood of sub-groups forming in response to the incident is raised by encountering this type of misunderstanding, especially when the partner who misunderstood becomes distrusted. Rebuilding trust in a global team is a difficult task.

Contained misunderstandings were as common as damaging misunderstandings being eight of the 18 incidents. A contained misunderstanding is a misunderstanding which is revealed and resolved,

accruing some benefits to the team, and containing any potential emotional pain with sensitive management. A contained misunderstanding has a positive or neutral impact on team relationships and processes, so that the overall group identity is strengthened or maintained. The eight cases were identified from interview data were incidents D(v), E(v), O(i), O(iii), O(x), O(xiv), O(xv), and O(xxii). For illustration, incident O(xxii) occurred when an event in Italy was arranged during a German-Italian collaboration. When the German group arrived, they were agitated at the event taking place in a historic protected building. A bridging individual mediated and found that the German group needed to use the walls for sticky notes. A last-minute improvisation led to portable whiteboards being brought in which satisfied all parties.

Contained misunderstandings were not identified in the literature as a type of linguistic misunderstanding. However, contained misunderstandings have several common aspects. First, all but one incident was related to words or interpreting a message, with O(xiii) related to tasks, and none related to roles. Hence the issues were usually relatively trivial to the project as a whole and rarely related to underlying problems. Second, they were resolved very shortly after the misunderstanding occurred. This meant that there was little time for divergence to set in or relationships to suffer damage. Third, once identified the incidents were quickly resolved. This was possible in part because four of the incidents took place in face-to-face meetings. Finally, in the contained misunderstandings related to words where there seemed to be some positive impact (incidents O(x) and O(xv)), humour was used to make light of the situation, so that any embarrassment was short-lived.

In comparison to damaging misunderstandings, contained misunderstandings tended to be of only marginal importance to a team, besides incident O(xiii). Alessandra viewed incident O(xiii) as an example of excellent leadership by the project manager, who noticed the misunderstanding quickly, held a series of calls, then an unscheduled face-to-face meeting to clear the misunderstanding. Alessandra put this skill down in part due to the project manager being a dual national who could mediate in several languages in an understanding manner, without blaming either side. These actions show the value of leaders who display sensitivity, decisiveness, and awareness of how to use a variety of synchronous communication media to resolve misunderstandings. As they were resolved quickly, none of the incidents became an ‘event’ which defined a team. However, in identifying, containing, and resolving incidents quickly, there may have been some benefit in establishing norms that meant team members tolerated misunderstandings, felt safer to make mistakes and felt comfortable in clarifying meaning.

Open disagreement

Open disagreements are related to hidden disagreements yet differ in that there was no point at which the disagreement was hidden in any meaningful way, either before or after the discussion. However, they present a useful contrast to hidden disagreements and misunderstandings, especially given that open disagreements can be repressed following an inconclusive open disagreement to become hidden. Only one case of open disagreement was coded. Incident C(iii) was a request for further resources for research, which was resisted by industry partners. After a robust discussion, the industry partners were persuaded of the view and the resource was granted.

Open disagreements such as these were short in duration and occurred in face-to-face meetings. Both sides were able to present their cases and the cases were resolved through compromise. The relatively straightforward nature of this open disagreement mean that it is likely that there were many open disagreements in the teams discussed. However, given that the interviews were concerned with misunderstandings, interviewees offered few examples of open disagreements.

Hidden disagreements

Despite the interview questions directly asking about misunderstandings, relatively few participants identified genuine misunderstandings, where one party mishears (or misreads) and accepts an assumption incorrectly. Instead, almost 50 percent of incidents identified from interviews were *hidden disagreements*. Participants tended to remember (and desired to discuss) incidents where two or more parties held differing opinions about working concepts, tasks, roles, norms of behaviour and the overall purpose of a team. Therefore, whilst there is scant literature on the concept of a hidden disagreement, it occupies a central place in the analysis of incidents.

In the hidden disagreements found in this study different parties operated as if they agreed on a topic, such as shared definitions of terms. However, either this surface level was a charade to continue the project smoothly or it was revealed later that interlocuters have different assumptions on the topic. For example, in incident A(i) practitioners and academics agreed to work together to improve staff 'competencies', but it was revealed at a certain point that their definitions of 'competences' are divergent, and a compromise had to be reached. These incidents are not misunderstandings as the key feature is not a 'listener error' in any sense; neither are these nonunderstandings as both parties are unaware of their contradictory understandings. Rather in hidden disagreements groups or individuals unknowingly work at cross-purposes (for example, how to perform a role or task). If disputes are revealed, these disagreements are rectifiable through dialogue and, usually, compromise.

In hidden disagreements there is no ambiguity about what is expected of a task or role, but there are a variety of unexpressed viewpoints about the topic. The difference between a disagreement and a misunderstanding was expressed by Bianca, with reference to Project B:

> "*Well, the tasks, I think they were quite clear. The project, it was also quite clear. No, honestly, I think the misunderstandings were-- not misunderstandings, really, different point of views on how the project should have been developed*." (Bianca)

If these different viewpoints are brought to the surface, it can have a large impact on team emotions, relationships, and performance. Like misunderstandings, disagreements often remain hidden when communication is asynchronous and are surfaced at teleconferences and face-to-face meetings.

As shown in Figure 8 below, three sub-types of hidden disagreement were revealed through the interviews. These subcategories are novel in the literature, deriving from several rounds of categorisation and analysis of the pathways of different types of disagreement. Unlike misunderstandings, there are no common stages between all three disagreement types. In an **undiscussed disagreement**, rather than working through an open disagreement, participants in a team tacitly decide to avoid open disagreement and conflict and continue to work despite a suspected disagreement. In **contained disagreements**, participants in a team are revealed to have divergent assumptions on a topic. These assumptions were previously unknown to each participant and the revelation of unexpected divergence then leads to discussion and, potentially, an open disagreement. Finally, in a **repressed conflict**, an open disagreement which is not resolvable at the time is encountered in a team. This disagreement becomes unmanageable and is then the disagreement is repressed without resolution.

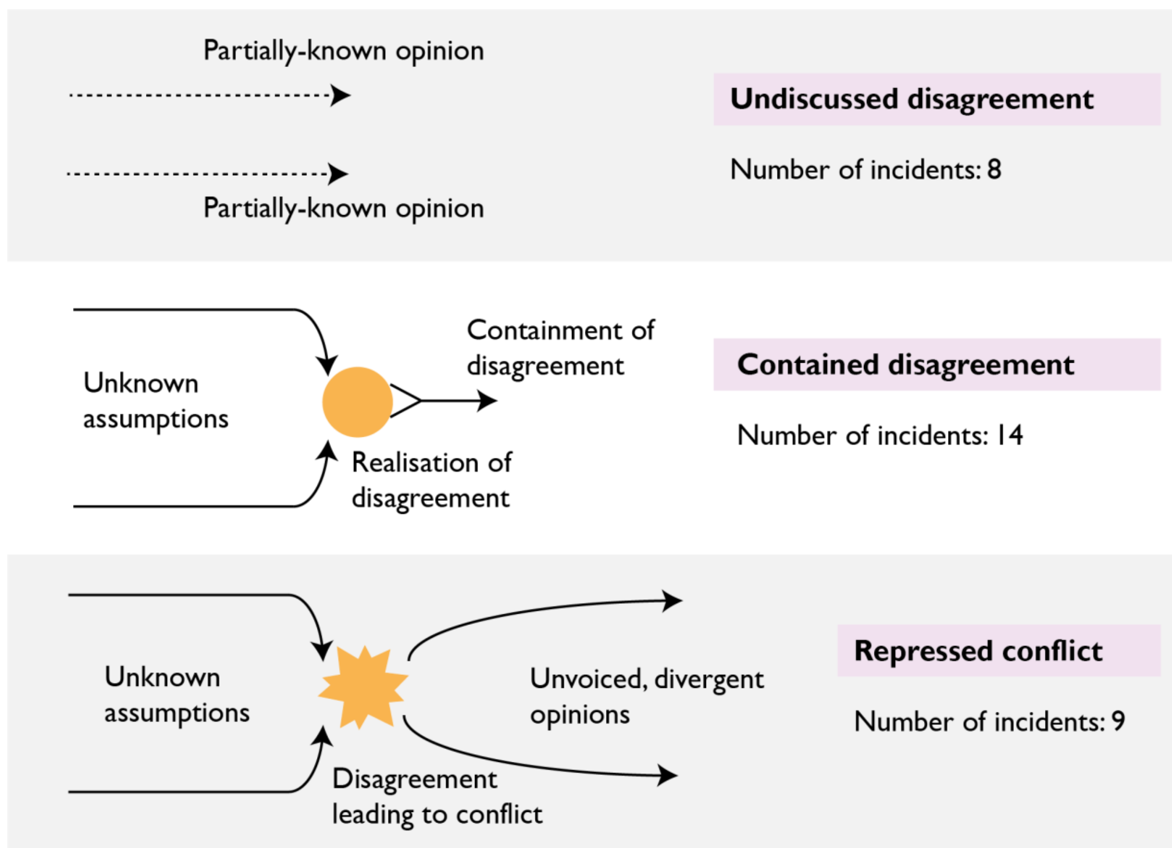

Figure 8 Sub-typology of hidden disagreements identified in research interviews

These sub-types are explored in detail below.

An **undiscussed disagreement** was an incident where participants in a team were semi-aware of a background disagreement but there was a tacit agreement not to have an open disagreement about the issue. The disagreements in these situations were unopened, undiscussed and all were therefore unresolved, unless this was done indirectly. In its pathway, undiscussed disagreements were most similar to unrealised misunderstandings, in that discord existed in a team but was not discussed and so remained under the surface throughout the group's interactions.

Five incidents were classified as undiscussed disagreements: incidents A(iv), B(iii), C(i), C(ii) and D(i). For illustration, incident B(iii) was a case of lack of clarity over leadership and authority. In Team B, the Project Manager was an external consultant co-opted into the lead organisation for the project. In the context of mounting difficulties, the Project Manager steadily disengaged from the project without explaining why to the Project Director. As a result, the Project Director spent an increased amount of time managing the project. The two managers did not discuss the management roles between themselves and other team members were often unclear who to address.

Several factors unite the undiscussed disagreements above. First, the issues presented in the cases were contentious. The incidents presented related to pivotal issues in a globally distributed project: agreed working concepts (D(i)), leadership (A(iv) and B(iii)), underperforming partners (Cii), and the overall purpose of the project (C(i)). Second, most cases related to roles (A(v), B(iii), and C(ii)). Discussion of roles is personal as it relates to the performance of individuals, therefore cautious leaders may wish to avoid open discussions, particularly in politely formal teams. Third, this type of hidden disagreement had great longevity, as each lasted more than a year. Fourth, despite the long length of these hidden disagreements, only incident A(iv) was resolved in any meaningful way; in all cases the issues were only discussed tangentially. Finally, each case of this type of hidden disagreement had a negative impact on project.

The prevalence and significance of this type of disagreement reflects the difficulty in computer mediated communications of containing difficult emotions, particularly where participants come from a range of cultures each with norms of acceptable behaviour. Unfamiliarity with communication styles of team members in in computer mediated communications can make communication overly formal and emotional closeness difficult (Chen et al, 2006). As a result, the 'social order' of virtual teams can often feel precarious, and some managers may prefer to avoid the risk of opening particularly difficult issues for discussion. As a result of these black spots, important issues went unresolved, and meant that the team operated with significant unvoiced disagreements, creating difficulties in collaborating, and achieving the project aims.

Another common form of hidden disagreement found in the study was **contained disagreement**, where an unknown disagreement is revealed through communication, leading to a contained disagreement. This pathway was most like contained misunderstandings, as these were cases of unknown disagreements that were realised within the group, usually without a conflict occurring, and which were successfully resolved. Five disagreements with these characteristics were found in the interview data: incidents A(i), B(ii), and E(iii). As illustration, in incident B(ii), an offline game was being converted into an online game. The originator of the offline game assumed that the online game would be faithful to the original and the other partners assumed it would be adapted. This clash of assumptions resulted in an open disagreement when discussion on the topic was raised at the first project meeting. The originator of the game eventually agreed adaptations would happen.

Contained disagreements show more diversity than many types of hidden discord and cover wide variety of topics. However, there are several significant factors that all the contained disagreements share. First, in each case an open disagreement took place following the discovery of the hidden disagreement. Once the disagreement was opened, discussions took place between relevant

partners which were often time consuming. Second, all the contained disagreements were fully resolved, usually due to partners' commitment to settling the issue. Third, unlike with misunderstandings, the disagreements were all resolved through compromise. In each case, an individual compromised (cases B(ii) and E(iv)), a partner compromised (incident O(viii)) or all parties compromised (cases A(i) and E(iii)). Fourth, none of the contained disagreements had secondary issues with norms of behaviour, that is, there were no behaviour clashes reported by interviewees that were unacceptable to other partners, besides incident O(viii). This may have made the issues more straightforward to resolve. Finally, although difficult to negotiate and despite the initial negative emotions upon the revelation of the disagreement, these contained disagreements had a neutral or positive impact on the projects and effectiveness of communication practices.

Although rare, contained disagreements could lead to full conflicts; incident O(viii) led to a long-standing if mild conflict and incidents B(ii) and E(iv) led to short-lived conflicts which were resolved after meeting. The key factor of whether a disagreement became a conflict here appears to be the length of time to correct as longer the open disagreement took to resolve, the more negative emotions were raised. The incidents that were most quickly resolved (B(ii) and E(iii)) were not associated with any negative emotions in the coding. Incidents that took several weeks to resolve (A(i) and E(iv)) were associated with agitation (upset, shock and stress) and emotions that were negative and not in control (shyness and paralysis). Incident O(viii) which took several months to resolve was associated initially with confusion early in the disagreement, and later with anger, shame, and distrust. As will be shown in repressed conflict, when emotions became overly strong during a conflict, they were often repressed in order to avoid further open dissention; in incident O(viii) the determination of Carlo appears to have been responsible for the issue being resolved rather than repressed.

Whilst contained disagreements were associated mostly with positive outcomes, **repressed conflicts** tended to have a negative impact on team coherence. Repressed conflicts were incidents where an open disagreement occurred in a team and became conflictual. This conflict was not resolved, instead the conflict was repressed, and further discussion was discouraged. The word repression reflects the psychodynamic meaning, that is, repression is a psychological defence against unmanaged anxiety (Hinshelwood, 1991). In these cases, the conflict resulted in a high level of stress which was dealt with through suppression of the disagreement and conflictual behaviour.

Four cases of repressed conflict were found in the interviews: incidents B(i), D(iii), D(iv) and E(ii). For illustration, in incident B(i) a partner who was widely deemed to be underperforming was consistently attacked by another partner with a similar sectoral background. After highlighting their

shortcomings on a consistent basis in meetings, the Project Director asked the attacking organisation to refrain further criticism of this partner. This request was followed despite the partner remaining highly dissatisfied with the competence of the underperforming partner. The underperforming partner was retained.

Several factors unite the cases of repressed conflict. First, prior to the conflict being repressed, strong emotions were experienced by the interviewees. These included anger, frustration, paralysis, and distrust in incident B(i), dissatisfaction and distrust in incident D(iii) and distrust and exasperation in incident E(ii). These emotions were experienced as particularly difficult to manage at a distance. Second, the conflicts often involved power struggles, particularly in incident B(ii), where "*compromise was very, very difficult*" (Beatrix). Third, in all cases project managers decided to exercise power and to repress the conflict. The decision to repress was taken by senior figures, often to avoid further disruption. Fourth, following repression the incidents described were all unresolved, and the status quo was maintained, though dissatisfaction increased.

In temporary virtual teams the lack of intrinsic unity means that members often have differing norms of group behaviour which need to be adapted to others. In the conflicts described above, the dynamics of the teams were disturbed by the conflicts, and repression of the conflict became seen as one of the few options available to remote managers. However, leaving (symbolically) important disagreements unresolved often led to increased levels of tension in a team who had to find other outlets for this tension.

Conditions that generate hidden discord

The preceding section examined the different types of critical incident identified in the incident analysis and coding. The remaining sections of this chapter utilise this typology whilst presenting the data structure from the coding of interview data. Eight aggregate codes were identified through the coding and these codes have been clustered according to which research question they are most closely related to: conditions generative of hidden discord, the impact of hidden discord, and managing incidents of hidden discord. A summarised table presenting the data structure is presented in Table 9 below:

Aggregate codes	Second order themes	Relevant research question
Virtual team context	Virtual team challenges	Conditions that generate hidden discord
	Linguistic diversity	
	Cultural and national diversity	
Patterns of communication	Channel specific communication	
	Clash of communication habits	
	Intensity of collaboration	
Power and contestation	Pre-existing disagreements	
	Organisational contestation	
	Disempowerment	
Emotional impact of hidden discord	Anger	Impact of incidents on globally dispersed teams
	Shame and embarrassment	
	Anxiety	
Effects of hidden discord	Loses efficiency	
	Address underlying issues	
	Splits in teams following incidents	
Triggers for hidden discord	Poor communication design	Managing hidden discord
	Lack of verification	
	Avoidance of discussion	
Preventing hidden discord	Linguistic competence	
	Communication competence	
	Accommodation of difference	
Managing incidents of hidden discord	Emotional skillset	
	Interpersonal relationships	
	Emergence of leadership	

Table 9 Presentation of data structure (aggregate codes and second order themes) clustered by relevant research question (following Gioia et al, 2013)

The remainder of this chapter presents the aggregate codes in order of research question, expounding on the findings under each second order theme. The first presents codes that relate to

conditions that produce hidden discord in globally dispersed teams. These codes fall into three aggregate codes: virtual team context, patterns of communication, and power and contestation.

Please note that interviewees have been given pseudonyms. The first letter of the alias corresponds to the Team letter, so that Team B interviewees are Beatrix, Bianca, and Berta.

Virtual team context

The first aggregate code, virtual team context, represents the overall structural conditions that globally dispersed virtual teams operate within. From a process perspective, operating in internationally dispersed, asynchronous teams had three significant differences compared to most synchronous teams: specific challenges with dispersal, diversity of language, and diversity of culture and nationality. The relevant second order themes are explored below with reference to how these conditions relate to the incidence of hidden discord. A figure summarising the findings related to virtual team context is shown below:

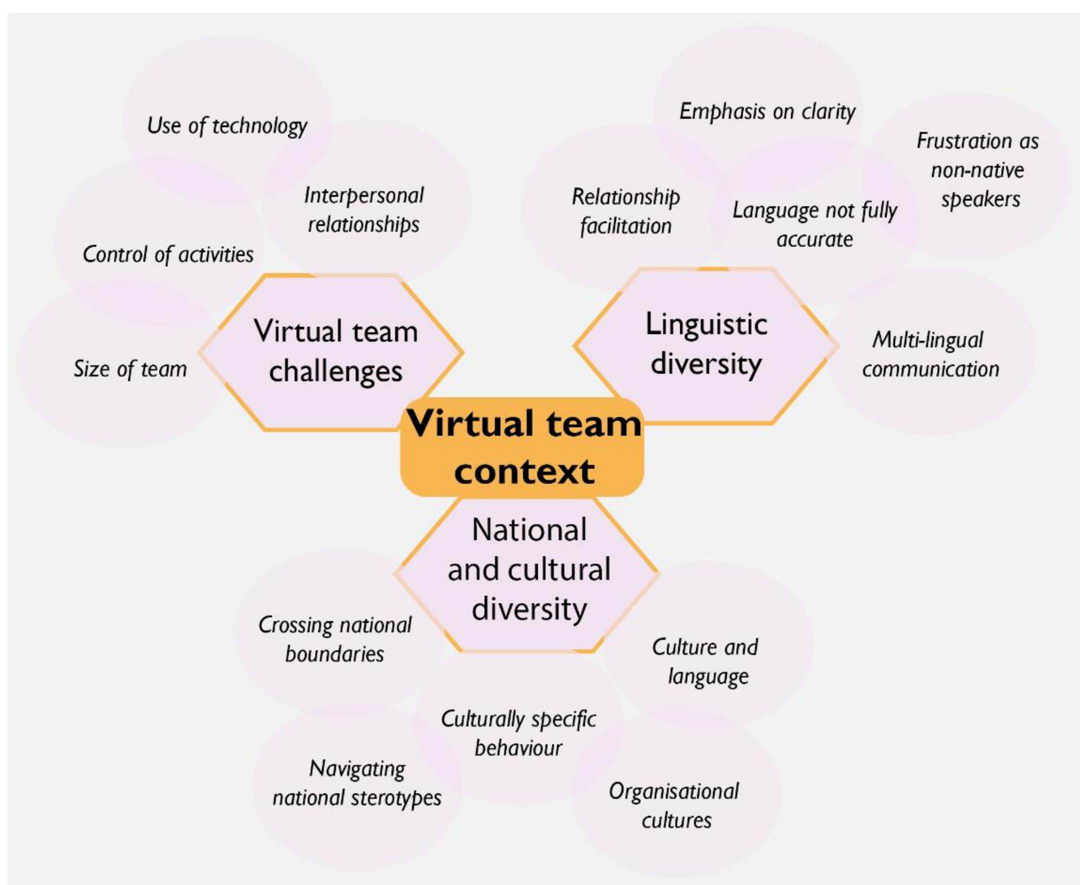

Figure 9 Summary of findings relating to virtual team context

Challenges for hybrid virtual teams

Working at a distance appears strongly correlated to challenging communication: "*every project I've worked on recently… has had… communication issues*" (Elliot). The first second order theme found

was a linked array of challenges for working in a hybrid virtual team. As introduced in Chapter 2, a hybrid virtual team is one which is neither purely virtual (that is, never meeting face-to-face) nor purely co-located. As shown in the methodology chapter, the teams covered in the semi-structured interviews were all hybrid teams, usually meeting face-to-face every three to six months. This led to a series of challenges related to being "*impossible*" to "*work face-to-face all the time*" (Clovis).

Though often treated as mundane by some interviewees, a common challenge lay in the use of technology. For Elisabeta, technology problems "*can lead to deeper problems*" (Elisabeta). When using ICT mediated conversations, "*communication may be affected by… the quality of the hardware*" (Donatella). ICT technical problems often lead to issues with project delivery when communication becomes unclear and emotionally tiring, leading to disengagement from some team members (Elisabeta), a state of affairs that may trigger hidden discord. Finding a good balance between face-to-face communication, teleconferences and written communications is an important balancing exercise in any globally dispersed team, because "*I don't think that one form of communication [alone] is the right way to go*" (Donatella) given that people have different communication strengths which are strengthened using some technologies and weakened using others.

Given that team members are globally dispersed, tight **control over activities** is a challenge and project managers often lack knowledge of what is occurring in difficult partner organisations. This lack of knowledge leads to a level of uncertainty: *"[you don't] know that everyone is really working always on the project, and the amount of time he should*" (Carl). Whilst loose control can be liberating for some teams, for project managers the lack of detailed knowledge about the status of the project can be anxiety provoking. The lack of knowledge and control of others was particularly pronounced in Team Z, the British-Chinese collaboration which delivered training in China: Zachary stated that "*everything's a step removed from us as well because we're very far away and have no control of the situation*" (Zachary).

A related challenge is that **interpersonal relationships** are difficult to develop in dispersed teams which is again related to lack of knowledge of team members based in other organisations. Whilst lack of personal knowledge can mean that some team members are tolerant of difficulties (Daphne), knowledge deficits also mean that virtual teams "*are masking problems. Then [these problems are] about to explode at some point"* (Elisabeta). The challenge of weaker interpersonal relationships means that operational issues often remain hidden for longer than they would in co-located team.

The scale of these technical, managerial, and personal challenges are influenced by the **size of the team**. Group dynamics mean that meetings with larger groups are disproportionately difficult. For instance, in Team C, "*the larger [groups] were not so good based on the already described problems that people are not taking attention in the same extent. So, the bigger or the more people were involved, the less good it was" (Carl*). In larger groups, for instance, in whole team conference calls or emails to all team members, it is challenging to engage all team members equally. Engagement in smaller groups is stronger, which is linked with stronger relationships and more control and knowledge of local activities (Anna). However, these smaller groups can lead to splits unless knowledge developed in these groups is consistently and meaningfully shared with the whole group.

Linguistic diversity

The second theme that emerged under the virtual team context aggregate code was **linguistic diversity**, which refers to the range of first languages spoken in a virtual team. Linguistic diversity is often a given in global virtual teams, with the concept of language 'configuration' emerging in recent years to describe the precise differences in language skills and attitudes amongst team members, particularly in reference to the team's *lingua franca* (Church-Morel and Bartel-Radic, 2014). In the project teams for this study, all team members besides Team Z were European with a variety of European first languages spoken. Despite the familiarity of English in such teams, "*language issues are certainly a major issue*" which "*potentially leads to numerous possibilities for misunderstandings*" (Elliot).

The *lingua franca* in each team besides Team Z was English and, typically, *"there were various levels of English"* (Claire). This variety of language proficiency meant that the language used in these teams was **not fully accurate**. Whilst native speakers were able to communicate without paying attention to the accuracy of their words, for non-native speakers the impact of speaking in a foreign language was often deep. In some cases, lower English proficiency affected self-image making team members less forthcoming (Anna). Whilst some interviewees, such as Daphne disagreed, for Eva, the "*main issue*" is "*language… and expressing yourself. And that might create some chances for misunderstanding*" (Eva).

In globally dispersed teams the language configuration impacts on the depth, fluency, and clarity of communications. Non-native speakers constantly weigh up the degree to which they **emphasise clarity of expression** over communicating complexity. For Bianca, lower English level "*reduces the chances that I have to express myself in a very detailed way and express the correct thoughts. Because I have to find the easiest way to say it and this is helps the clearness of the communication, but it reduces the depth of the concept*" (Alberto). By accentuating clarity of expression, non-native

speakers orient their communications to the comprehension level of their listeners. However, the lack of depth or nuance may make messages vaguer.

English as *lingua franca* is accepted by many in global teams as necessary, yet that does not imply that being forced by circumstances to speak English is without **frustrations**. For Adela as a Spanish speaker, for instance, "*Spanish is spoken in many, many countries and by many, many people. So sometimes…we are very aware that we are doing an effort to speak in another language*" (Adela). Most native speakers "*don't worry about the fact that the rest of the world have to learn this language because the economy of the market imposes that need on our head*" (Donatella). For one multi-lingual team member, a French colleague who was a language specialist "*speaks to me in French quite a bit because she finds it exhausting in the meetings just working in English all of the time*" (Elliot). As an English native, this "*surprised*" Elliot "*as to how difficult even language specialists find it working in a language that isn't their native language*" (Elliot).

The presence of other first languages besides English was most often viewed as an asset by interviewees. Having a variety of languages available could serve two functions. First, the presence of multiple languages was **an aid to communication.** One Southern European interviewee gave an extraordinary example of a multi-lingual conversation that was still comprehensible: *"I was speaking Italian. They were speaking Spanish and Portuguese. And we were able to understand nevertheless*" (Carlo). In teams where English is usually spoken, interviewees almost always saw code switching as an uncontroversial and a communication asset: *"It was just to clarify the concept, and then we switched back to English. It was just a function of the meeting, let's say"* (Bianca). One British project manager noted that *"it creates a better relationship or a sense of rapport if you can then just quickly swap to another language to explain a concept, or say, oh no that's not what I meant, I meant this thing in a different language*" (Claire). Under some circumstances, a shared language may lead to language in-groups.

Cultural and national diversity

The final second order theme under 'virtual team context' was cultural and national diversity. For **national boundaries**, teams are required to work in multiple legal and institutional contexts simultaneously, requiring partners to have some awareness of what these boundaries are to avoid operational problems such as when Bank Holidays are (Elliot). Working across countries was often an enlightening experience despite difficulties as it can reveal how national experiences often do not translate to other countries, as described by Elliot' "*it's been an eye-opener to me too, to realize how Anglo-centric my view is on more than [one] occasion*" (Elliot). What united many teams is that team

members have a commitment to working across countries: "*I prefer to breathe international oxygen…. I don't feel comfortable when I work just in Italy*" (Donatella).

In some circumstances, national diversity can activate latent xenophobia in complex ways, including **national stereotypes** and projections that influence how team members adapt and behave in diverse settings. These stereotypes may lead some to minimise their national characteristics, whilst others unconsciously embrace stereotypical behaviour (Beatrix). In cross-national interactions, global inequalities also influence power dynamics, for instance, team members from richer countries are often assumed to have a higher level of authority due to "*cultural cache*" (Ada; Zachary). For Zhenzhen, a Chinese manager, working with the British made her "*want to study the history of colonisation*" as some of the dynamics in the British-Chinese team resembled colonialism, with the British team being uncomfortably dominant at times (Zhenzhen).

Negotiating **cultural boundaries** can be less clear cut than national boundaries. One of the main issues raised by interviewees was in distinguishing cultural behaviour from personal behaviour, that is, in navigating uncertainty over whether 'bad' behaviour was due to cultural or personal characteristics (Beatrix). One project manager with over 20 years' experience in such teams stated that:

> "*It happens that there is a clash sometimes because there is no understanding of the cultural basis of certain behaviours, and so it may happen that there are, for example, big misunderstandings, even at personal levels, which can lead to people who not only don't understand each other but also start disliking each other*." (Eugenia)

Lack of understanding on the 'cultural basis of behaviour' leads to uncertainty in how to interpret behaviour and emotions such as visible anger, shouting, or even punctuality. To avoid these cultural misunderstandings, team members' skills in interpreting cultural behaviour is a key to navigating interpersonal clashes.

As noted in the literature review, **language and culture** are often closely linked, and this is especially shown in the concepts used in foreign languages, where concepts are used differently depending on different experiences they have in their culture, country, and sector (Berta). The confluence of language and culture means that there are constant micro-misunderstandings where different understandings of the same words occur. Several misunderstandings of roles occurred precisely because the concept of the role differed according to the cultural context (Daoming). For a professional translator such as Zongmeng, cultural differences are embedded within language, with Chinese being more common to use allusion and allow ambiguity, whilst "*English require logic much more than Chinese*" (Zongmeng).

The final aspect of cultural diversity raised by interviewees was **organisational culture**. The interviewees' project teams were almost exclusively inter-organisational partnerships, often working for a client, and organisational culture clashes came from both between partners and between the funder and funded. Beatrix spoke at length on how interactions between dispersed team members often involved concealed organisational culture clashes: *"often when we communicate, especially online, we export our organisational culture*" (Beatrix). The power dynamics of these interactions is also relevant, as commissioners and lead partners were often able to impose their culture upon others, whether that involved the requirement for extreme precision (Beatrix) or the necessity to make a profit (Eugenia).

Patterns of communication

The second aggregate code relating to conditions that produce hidden discord was patterns of communication. This was a broad category that contained text which described how the clashes of communication styles occurs in hybrid teams and how these may relate to hidden discord. Three second order themes were identified: channel specific communication, clash of communication habits, and intensity of collaboration. A figure summarising the findings related to patterns of communication is shown below.

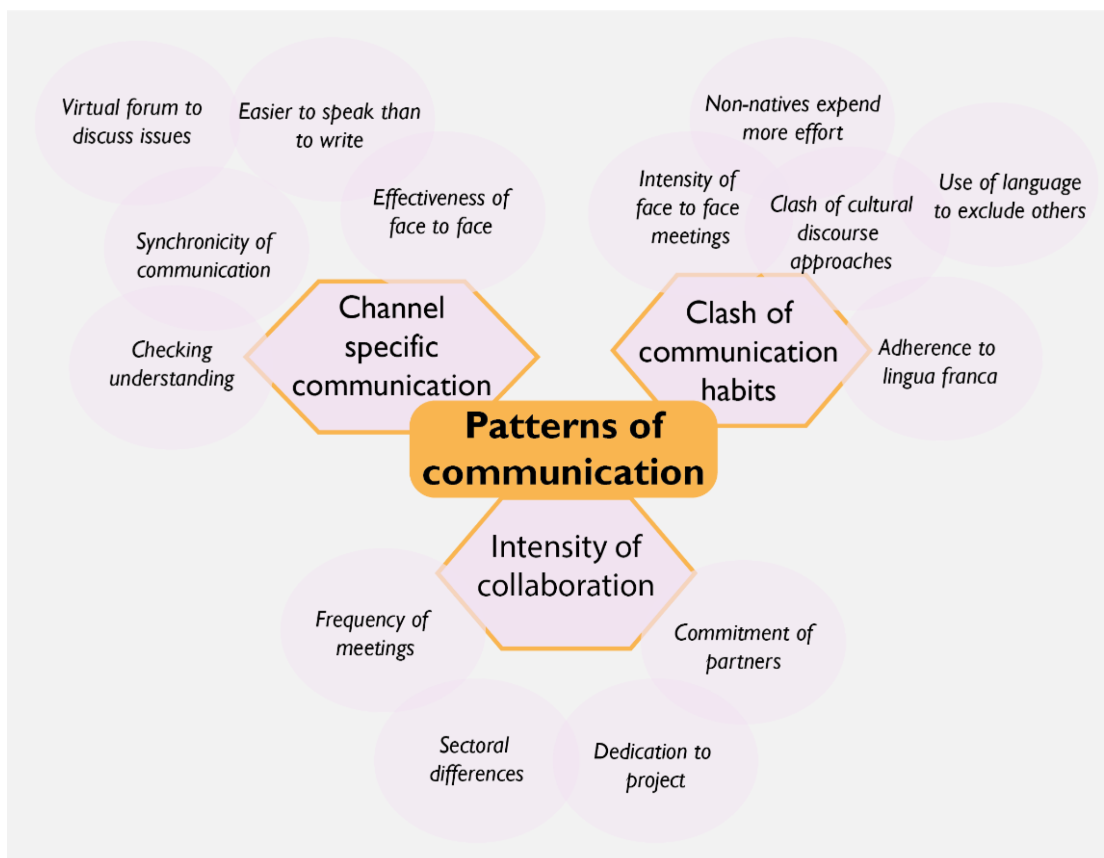

Figure 10 Summary of findings relating to patterns of communication

Channel specific communication

The first secondary theme identified, 'channel specific communication,' relates to the quality of communication on various channels used by the team. Use of channels of communication has a significant impact on teams' ability to find, examine, understand, work through, and resolve discord. For instance, in case E(iii), during a coffee break at a face-to-face meeting an email between the project director and a team member was revealed, which related to a long-standing unspoken disagreement about whether the project should collect a large quantity of data or high-quality data in the short term. The Project Director shared that he was going to respond to the team member's email to him that quantity was more important, which came as a surprise to all in the conversation. Over the next five minutes the disagreement was quickly resolved.

This example illustrates that the **synchronicity of communication** has an outsized influence on the process of discord in GVTs: *"In writing you… can very seldom resolve some critical situations. I think face-to-face is then really the best*" (Carlo). Email was the CMC method most associated with hidden discord. Such cases show how hidden discord is sometimes generated when a team relies on asynchronous communication media such as email: making wide-ranging decisions in private one-to-one emails means that other team members have no understanding of how they should be operating (Elliot). Managers with the tendency to share little knowledge are more likely to create hidden discord when communicating via email, as they are fewer opportunities to ask for clarification using this medium; skill in selecting ICT was associated with preventing hidden discord.

Interpreting emails is a highly uncertain exercise because *"it's difficult to communicate when you can't gauge somebody's response*" (Alessandra). Several interviewees claimed **email can make it difficult to check understanding** and to gauge how the message was received (Elliot). Interactions that rely on written communications such as email alone appear particularly susceptible to misunderstandings. In incident O(ix), in the lead up to the final face-to-face meeting when each partner presented their final progress, the preceding months relied on email communication to instruct all partners on what they were to accomplish. However, one partner did not follow these instructions: "*They did nothing on it for three months despite emails… checking that partners were aware of their responsibilities and working towards fulfilling them. But general emails like that, which because they didn't have a clear instruction in, were quite clearly, simply ignored*" (Elliot). Three damaging misunderstandings (incidents A(ii), A(iii) and O(ix)) occurred during periods of low volume communication implies that hidden discord develops powerfully when use of synchronous media is low.

In dispersed teams, when interpersonal relationships are felt to be less valuable, effort to ensuring other team members are synchronised need to be tailored to individuals. Yet when relying on email communication, interviewees often struggled to identity the difficulties and commitment of different team members until serious problems were noticed. In such cases where knowledge of other team members was low, **face-to-face communication** is "*much more effective in terms of the quality of the communication. [When teams lack history of face-to-face meetings] it's really hard for those to breach the gap between people*" (Diana). Face-to-face meetings and 'project dinners' are rare opportunities for developing personal relationships: One interviewee, Bianca, who teleworks from Italy for an organisation in Spain, found that the lack of face-to-face time hinders strong personal relationships from growing, which makes intervening in a difficult situation less effective: *"if you go to the office… you know the people better, you have lunch with them - so then after that the relationship is more easy…. And also you attempt to… preserve [and] give more value to the relationship*" (Bianca).

Many non-native English speakers found it "***easier to speak rather than to write***" (Claire), and teleconferences were used often in these teams. Teleconferences are not necessarily a fluent form of communication, particularly compared to face-to-face communication. For instance, face-to-face communication makes entering clarification cycles easier: *"sometimes [teleconferences] can cause misunderstandings. It's more difficult when you have webinar or a Skype call because you can't ask your neighbour "what did he say?""* (Anna). Particularly in large groups, short meetings are often experienced as not offering "*enough time to go deeply*" (Ada) and are often characterised as unproductive because "*people are not really taking full attention*" (Carl). Lack of verification, time and productivity mean that group phone calls need to be carefully designed to ensure that they are appropriately designed for different circumstances.

Communication media needs to be used with attention to ensure that key messages are delivered effectively, checked frequently and use the appropriate medium and to ensure that discord does not develop or that if it does it is quickly resolved. Unsurfaced disagreements are hard to reveal at a distance, particularly when project managers lack the skill or experience to navigate issues through CMC (Alessandra). When there is no **virtual forum to discuss issues** between phone calls, such as a message board, then emails are often used for discussions. Yet discussions via email are rare, and in most cases the only person replying is the person "*who is responsible for the work package*" (Eva). Similarly, for sensitive topics virtual communication is easy to ignore than face-to-face: "*if you send a private email to them normally they don't answer you, but when you ask them in person in physical spaces, normally they have to give you an answer*" (Daoming). There has also been a decline in use

of telephones for work purposes (Dante) which makes the options for contacting team members on an *ad hoc* basis more difficult. This combination of factors – skill required in selecting and using appropriate media and the difficulty to engage team members in discussions outside of synchronous communications – creates conditions for hidden discord in GVTs.

Clash of communication habits

Due to pre-existing divergences in language and communication habits, a number of factors are present in globally dispersed teams that lead to clashes in communication habits. These occur due to different patterns of communication, for instance, if some team members are more polite, direct, vague, or formal than others due to their communication predilections. The factors identified in the coding that influence clashes in communication habits are negotiating a *lingua franca*, differing communication styles, and interpersonal dynamics in meetings.

Whilst linguistic diversity is a recognised aspect of global virtual teams, in all the European teams addressed, **English was chosen as the *lingua franca*.** In teams with a *lingua franca*, although code switching can be extremely helpful for checking understanding, many non-native English speakers are reluctant to switch to their native languages. Where team members refuse to switch, even in one-to-one communications, adherence to a *lingua franca* can lower comprehension (Anna). Refusing to code-switch can be interpreted as going against the cultural grain and national solidarity, and so has a deleterious effect on interpersonal relationships.

English as *lingua franca* operates in a fashion that leads to **more effort for non-native speakers** to understand discussions or documents, which is often not taken into consideration by native speakers. On a comprehension level, multinational teams speaking English means being attuned to "*his way or her way to speak in English*" because "*in European project, every time, every person speaks in a very different manner*" (Donatella). For non-native speakers with lower English proficiency the situation can be "*a big frustration*" to be unable to express complex ideas or feelings (Anna).

To some degree, this additional effort is recognised by **native speakers**, who recognise their articulation of English is a team asset. This potential for better articulation of ideas by native speakers means they are able to "*reach for particular words with the right nuance or connotation*", which usually makes native speakers the most articulate in a team (Zachary). This power of articulation can give native speakers more authority (Zachary).

Yet despite being aware of the difficulty of communicating in English for non-natives, native speakers can often struggle to change their communication habits. For instance, Zachary, recognised

that he often uses complex vocabulary. Another native speaker said "*[I] frequently fail to realise that I need to be writing much simpler English, make things much clearer than I sometimes do*" (Elliot). Usually native English speakers are the least aware of the language challenge and do not adapt their communication to the level of other team members.

The better command of English by native speakers looks different from non-native speakers' point of view: for some interviewees, the *"main [communication] challenge"* is *"comprehension during meetings when native English speakers speak"* (Alberto). In many cases, native speakers lack accommodation of other team members' English levels which is "*the source of many, many problems which arise in projects…. [P]eople communicate all the time in English then the native speakers think, 'okay, everybody understood' but they didn't understand*" (Clovis). Assuming understanding without checking appears to be a common issue for native speakers in globally dispersed teams, as well as speaking at a fast pace and using uncommon vocabulary. This behaviour underlies the impression that much power resides in native speakers and the **language can be used to exclude**, whether intentionally or not. One interviewee claimed that besides two native speakers, "*I never met other people who really worried about"* making their *"speech understandable*" (Donatella). By ignoring this issue, native speakers increase their power in groups, particularly for complex topics where native speakers have a much wider repertoire to express their thoughts: "*when you get to a certain level of debate, then I think that you can see a difference in terms of power dynamics between the native speaker and non-native speakers*" (Dante).

The second communication factor identified relates to **communication style** when speaking a non-native language. For team members who were not raised speaking English, their grasp of language tends to be characterised by a shallower vocabulary and less dexterity in use of words. This can lead to a tendency to be more direct and sharper than they would be in their own language: *"I have a lot of words my own language to allow me to say something that is not sharp. That is more much more difficult to express in English*" (Alberto). For non-native speakers, subtle allusions to sensitive topics are far more difficult: *"You can't be as careful when you're writing or speaking in a foreign language*" (Bianca). This inability to negotiate with nuance means that non-native speakers are "*not aware that [they] might sound… too direct speaking with foreign languages*" (Diana). The lack of linguistic precision and sensitivity which can make dealing with conflicts and upsetting situations far more challenging.

Another aspect of communication style relates to **culture and language patterns** in different cultural contexts. Communication needs differ by culture in multi-national European teams (Beatrix) as does acceptable behaviour. For one Spanish speaker, "*I'm sometimes being accused of being too soft [in*

Spanish]. But when speaking in English, I'm… the opposite [laughter]" (Adela). For this interviewee, the tension in different perceptions of communication style is easy to manage until there are "*difficult conversations or tension within our team*", when it can be hard to manage these perceptions, particularly as a woman where it is easy to be perceived as "*too aggressive*" (Adela).

These clashes of communication patterns appear to be exacerbated in teams composed of both **European and Asian participants**. For instance, in a Pakistani-British collaboration, the interviewee (a Pakistani living in the UK) found that "*when I talk to [the Pakistanis] on my own, then I feel they feel more comfortable*", whilst in mixed settings they become "*shy*" and "*uncomfortable*" (Dabir). He found the Pakistani participants enjoyed discussing topics that are "*not very useful for the projects*" rather than focusing only on the subject the meeting was organised to address (Dabir).

These cultural and linguistic patterns were most pronounced in Chinese-European interactions. In the Chinese-British collaboration (Team Z), the two leaders of the two organisations often clashed. According to Zhenzhen, the Chinese lead, the clashes were, at least in part, because when asked a question in Chinese, one will justify their response first and provide an answer at the end: "*we need to unfold, put the foundation first and then give my real point. But [the British lead can't] wait until I have really said my point. She already disagrees or cut off*" (Zhenzhen). This creates many occasions when Zhenzhen feels *"misunderstood*" as she was not able to express her full opinion (Zhenzhen). Clashes in discourse approaches meant the collaboration in Team Z almost failed (Zhenzhen).

In another example of Chinese collaborations, Daoming gave an example of a museum collaboration between Mexico and China, where cultural censorship in China prevented exchange of some Mexican exhibits. However, the Chinese partners were not able to explain this situation due to political sensitivities. In this case, "*we cannot offer [a] written certificate [saying] that, okay, the government will not allow us to exhibit or show this artwork…. [This creates a] misunderstanding for our partners if it's their first time to collaborate with China*" (Daoming). In these cases, the Chinese partner **preferred that their partner misunderstood** rather than telling a potentially embarrassing truth to a new collaborator.

The final factor on communication habits is **meeting dynamics**. Whilst both theoretically and practically face-to-face meetings are the site best suited to discovering and resolving hidden discord, meeting dynamics are also difficult to manage as communication style clashes are at their most virulent and unrestrained. This is particularly because most team members live and work in their home countries and often have little national diversity in their local organisation. This leads to a degree of regular homogeneity where team members are "*never challenged to examine your*

conversation patterns unless you get to European project meetings" (Beatrix). In these meetings, people are often forced into changing their usual behaviour through heightened emotions and reacting to situations that were unusual to their home organisation, such as a British project manager shouting "silence" (Claire).

Interviewees also provided some evidence that team members would internalise national projections from others: *"Sometimes I become more German than I normally am in a meeting. And maybe the Italians become a bit more Italian*" (Beatrix). Differing communication norms can develop strongly when the team is composed of sub-groups from nations: in Project A, the Italians in the group "*shared a way of working, which is 'we can definitely argue and it's fine'. That might have not been understood necessarily by others*" (Alessandra). In globally dispersed teams, as a team begins to form ways of working and norms of behaviour, unacknowledged differences in communication style can lead to tension and internal splits in the team if not resolved. This combination of usual communication patterns, emotion reactions and reacting to national stereotypes make international meetings a petri dish for the potential clashes in communication styles unless managed well.

Intensity of collaboration

The final secondary theme under the aggregate code 'patterns of communication' was **intensity of collaboration** between team members, that is, the extent that tasks were worked on together and the volume of communication between team members. In multi-organisational partnerships, the extent and patterns of collaboration are a crucial component to understanding the extent to which hidden discord occurs in teams. This is particularly the case for misunderstandings where low intensity collaboration leads to little inter-organisational dialogue, and therefore, fewer opportunities to recognise and resolve misunderstandings. The interviews identified three factors that affecting the depth of collaboration in globally dispersed teams: commitment, diversity of sector, and frequency of meetings.

The first factor, **commitment of partners,** was mentioned by several interviewees as a potential factor influencing collaboration patterns. In most projects, due to the funding structure of EU project grants and collective responsibility, it is possible that some partners will disengage from the collaboration process. For some interviewees, the motivation of some organisations to participate in these projects was quite cynical: "*they see EU projects are just… one of the less difficult ways of covering their own costs, their own fixed… costs…. And they use projects very much as a contribution to their own staff costs*" (Eugenia). In these cases, when a partner demonstrates low commitment to a project, they often disengage from communication and the primary purpose of the project (Bianca). When projects experience this perceived 'free rider' phenomenon, they can exclude the

partner from important decisions, exacerbating the understanding gap between the partner and the rest of the consortium.

When several partners demonstrate low commitment, teams can collaborate less and **become divided by their level of dedication** to the project. This can have a strong influence on patterns of communication, as in Project D: "*The partners are split according to their understanding of quality, some partners are committed to doing something good on this project, and others are not. So us committed partners tend to work together often and it works well, we meet weekly*" (Dagma). Lower commitment of team members can reduce the intensity of collaboration because "*people don't feel responsibility for a lot of these actions because they are in those [virtual] realms*" (Elliot).

Patterns of asymmetrical participation often form mid-way through a project after finding that some partners are 'hard work'. Commitment is not always the main issue: difficulties in collaboration may also be due to language issues, cultural issues, or **sectoral differences**. Whilst language and cultural diversity were mostly covered under *virtual team context*, it is worth mentioning that lack of communication fluency for any reason, can push partners to find who is easier to work with. This is particularly the case with sectoral diversity where "*It is easier to communicate in an international environment to collaborate with organisations of the same kind*" (Alberto). Having a sense of shared background, shared priorities and shared vocabulary makes collaboration between organisations potentially easier.

Where there was a significant sectoral divide in a partnership **transmission of knowledge** often became difficult. Team C were divided between industry and academic partners who often worked in parallel rather than collaborating which made. For the researchers, who were tasked to understand social impact to feed into technical development, the transmission of research knowledge to the technical development was rarely smooth: *"Some technical people don't understand sometimes why improvement studies are important, and maybe also the other way around*" (Carl). For one of the industry partners, from the *"practitioner side, we were not satisfied with… what a researcher would call a good result*" (Clovis). The difficulty in transmitting knowledge between different sectors meant that it was rare for collaboration between sectors to occur, which led to some fundamental understanding gaps between different types of partner. In extreme cases, sectoral divisions can become the most challenging dynamic that a project faces and make intense collaboration very labour intensive (Elliot).

Power and contestation

Coding assigned to the power and contestation aggregate code describes how leaders and organisations contest and deploy power in globally dispersed teams in ways that **frame hidden**

discord. Contestation among members of a globally dispersed team often formed the immediate context in which hidden discord occurred. Contestation was clustered into second order themes: pre-existing disagreements between team members; organisational contestation; and disempowerment. A figure summarising the findings related to power and contestation is shown below:

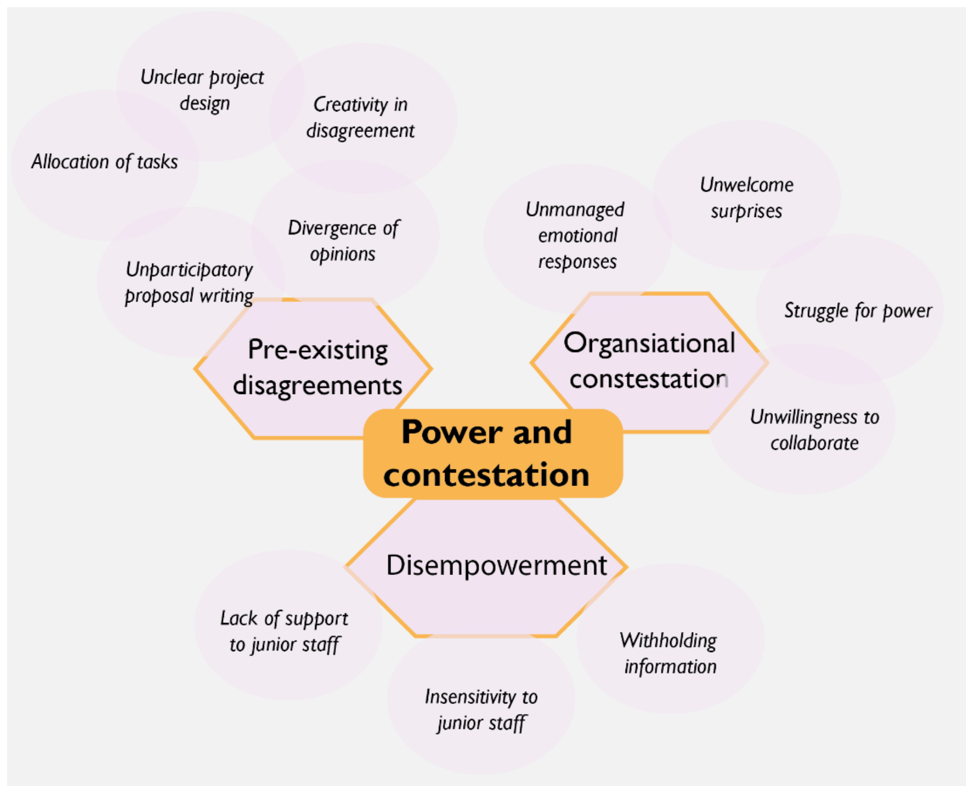

Figure 11 Summary of findings relating to power and contestation

Pre-existing disagreements

Pre-existing disagreements often became sites of creative contestation in the study's GVTs. Prior to the official start of a project, several preconditions are formed which make hidden discord likely, such as project design and assumptions on the approach of the project. Most projects in this study were preceded by a written proposal for funding which set out in detail the project and allocation of tasks which became codified in the client contract. To present a coherent vision, these **proposals are rarely written participatorily**: the lead partner is usually responsible for writing the main part of the text and allocating roles. There may also be some input by other partners, especially if there is a degree of familiarity within the partnership. Because of this largely siloed process, the various perspectives and skills of different partners are rarely fully realised at the outset of a project and power is initially concentrated with the lead partner who alone understands the project well.

The issue of allocating tasks to unsuitable partners was responsible for several instances of hidden discord, including incidents A(iii) which is explored in Chapter 6. In other cases, tension arose because **a task was written by one partner for another** who did not share the same concept for the task. In incident B(ii): *"OrgA wrote OrgB's work package…. So, there were competence struggles to an extent. And I feel OrgA were fishing all along almost to take over from OrgB*" (Beatrix). In both incidents, the seeds of the issue were laid even before the project had begun by lack of understanding of the competences and perspective of the partnership.

In cases where the **project design is unclear**, contestation over how to understand the work needs to be resolved: "*When someone interprets a sentence [from the proposal] like, well you're responsible for that. And then someone else says, "Oh, no, I don't have budget for this task. We think you're supposed to be implementing that." And just as a coordinator, you end up then being a mediator for all those discussions*" (Claire). The clarity of the initial communication from the proposal is an important condition for hidden discord and one commonly encountered: project proposals are written primarily for clients, not as a set of guidelines and instructions for team members.

Prior to a project starting, there is nearly always a degree of **divergence of opinions** on a project's vision. This existing divergence is a contextual factor that teams face going into collaborations. Whilst divergence can be expected, the disparate positions that participants take up are often not revealed until the opportunity to engage in a wide-ranging dialogue is taken, as in Project C: *"I think everybody tried to explain their point of view. But when people are presenting their ideas, then you see that the starting point is very different."* (Clovis). In this case, the variety of starting points was largely split according to sectoral background, yet these differences were only revealed once an issue on the objectives of the project were discussed.

Divergent views tend to form the context for hidden disagreements because having a diverse set of perspectives means that there are **few naturally agreed positions** between all parties. Indeed, without a facilitated discussion, many differences of opinion remain suppressed and below the surface. "*it's not a matter of misunderstanding - it's an issue of each partner having a different perspective. And we didn't manage to reach the same shared view on how the project should have been managed*" (Bianca). Revealing hidden disagreements that have underlain the project since before the project even began can create tension which is extremely challenging to resolve by project managers.

Without strong leadership and facilitation, disparate views can play out as organisational power struggles and lead to splits in globally dispersed team between different sides of a conflict. However,

a project team containing disparate views is not necessarily negative: having diverse viewpoints was associated with **creativity** by several interviewees. This divergence works best when there are strong leadership forces which are able to steer and contain differing views: *"they are creative projects and you always get disparate views. And you do need somebody to give people some framework or steer a broad direction in which to direct their efforts"* (Beatrix).

Organisational contestation

Organisational conflicts often underlay hidden discord, particularly disagreements. Background politics between organisations (Beatrix), grudges that developed between individuals (Bianca), norm-breaking behaviour (Carlo) and unreasonable demands from those in authority (Beatrix) were all examples of organisational contestation described by interviewees as influencing hidden discord.

The most common type of hidden disagreement affected by organisational contestation was a repressed conflict. In these cases organisational conflicts became repressed for a number of reasons: **unmanaged emotional responses** (particularly anger and frustration), **unwelcome surprises** (for instance a participant finding out during a meeting that a document had been ignored) divergent points of view which were irresolvable through discussion, and in some **cases unwillingness to collaborate** with certain partners. Rather than resolving the conflicts, the manager would then repress the conflict. For instance, in incident B(i), the organisational critique of a partner was suppressed by the Project Director: "*we were always against them…. I guess from [the Project Director's] perspective, it was very annoying also, because we were always pointing our finger against them, so at a certain point, she said, "Please, let us relax a bit. It's not possible to go on like this." And so we had to stop*" (Bianca). These cases demonstrate that when long-standing organisational conflicts are not resolved over a long period, this creates the conditions for managers to decide that further discussion is counterproductive and should be stopped.

In cases of protracted disagreements, the **struggle for power** sometimes became part of the process of resolution, where a compromise is not possible. In one case, a hidden disagreement (O(viii)) became escalated through the persistence of a work package leader (Carlo) who gained more authority and power and, through this, managed to resolve the disagreement without compromising with the "*underperforming company"*. According to Carlo, this company:

> "*was going really bad so the consortium decided to assign to me the technical leadership of the work project. So, I was endorsed by the other, I got more power. And when I got more power, I became the technical manager and that, you use all the power. Eventually, I also managed to move some of the [budget]*" (Carlo).

In this case, a disagreement only became resolved through the persistence (and aggression) of Carlo

who managed to gather sufficient authority over time to force the other company to give up some budget and therefore "*win*" (Carlo) the contestation.

Disempowerment

Hidden discord was often initially framed by **suppression and disempowerment**. For instance, misunderstandings could occur when an individual or team is unable to gain the knowledge needed to perform a task or role; this inability is often the sign that the participant in a misunderstanding is struggling in a lower position in the (inter-)organisational hierarchy. This was the case in incident A(iii) in Chapter 6.

Similarly, in incident O(xxi), a new junior employee was left alone to organise a complex event. Whilst the partner frequently changed their minds and communicated poorly over their demands, the partner blamed the young new employee for the lack of success of the event. Her difficult position was exacerbated by **lack of support** from her own colleagues, which made the poor communication with senior team members from other organisations more difficult to deal with (Daphne). In these cases, new, junior employees were left isolated and unsupported leaving them with insufficient resources to gain the knowledge or knowhow needed to perform assigned tasks.

Disempowerment can also be seen when managers or others with knowledge in a team do not respond to requests for information or clarification, which has the effect of **withholding information**. In such cases information is withheld either to manage perceptions or due to lack of time and attention. For instance, on one project Daoming was not given a report template and after completing and submitting the report noticed that his was the only one in plain text format (Daoming). Disempowerment came in many forms in the critical incidents, occasionally purposeful though usually accidental. However, disempowerment appears more often when those in **authority act insensitively towards those with less power** than them. In incident O(vii), a chairperson aggressively shouted down a presenter he had misinterpreted and did not give the right to reply. In these cases, lack of awareness and thoughtfulness by the project leaders led to participants becoming 'stuck' and possessed insufficient authority to support their positions.

Impact of incidents on globally dispersed teams

This section presents codes from two aggregate codes related to the impact of incidents on globally dispersed teams: emotional impact of hidden discord and the effects of hidden discord on teams. This section presents each aggregate code in turn. First, the emotional impact of hidden discord was a significant factor in every incident of hidden discord, and how these emotional responses were dealt with usually had an effect on how the incident was resolved or left unresolved. Second, the

medium- to long-term impacts of hidden discord are presented, outlining the operational impact and longer-term effects of these incidents.

The aggregate code on the impact of hidden discord shows a diverse set of consequences, though in most cases there was an emotional impact on team members to go through these incidents. Each case of hidden discord led to some inefficiencies in the team whilst the situation was dealt with. When this was done effectively, the team would have an unexpected opportunity to make sense of the project status, and deal with underlying issues that had been revealed by the hidden discord. Handling of the discord would also often lead to splits in a team, where ineffective members were ejected, a partner was blamed, a core group of project 'insiders' was formed or cultural boundaries solidified. The only split that appears to have had little negative impact was where a partner was ejected or left. The other three types of split appear to have created significant difficulties, particularly communication and interpersonal problems, which led to confusion (Team D), project results not being capitalised upon (Team C), and pervasive mistrust (Team Z).

Emotional impact of hidden discord on individuals

Codes under the secondary theme 'emotional impact' describe how team members felt during incidents of hidden discord. These emotional responses and how they are handled appear to have a significant impact upon the pathway of hidden discord in teams. These codes were clustered under three types of emotional response: anger, shame, and anxiety. A figure summarising the findings related to the emotional impact of hidden discord is shown below:

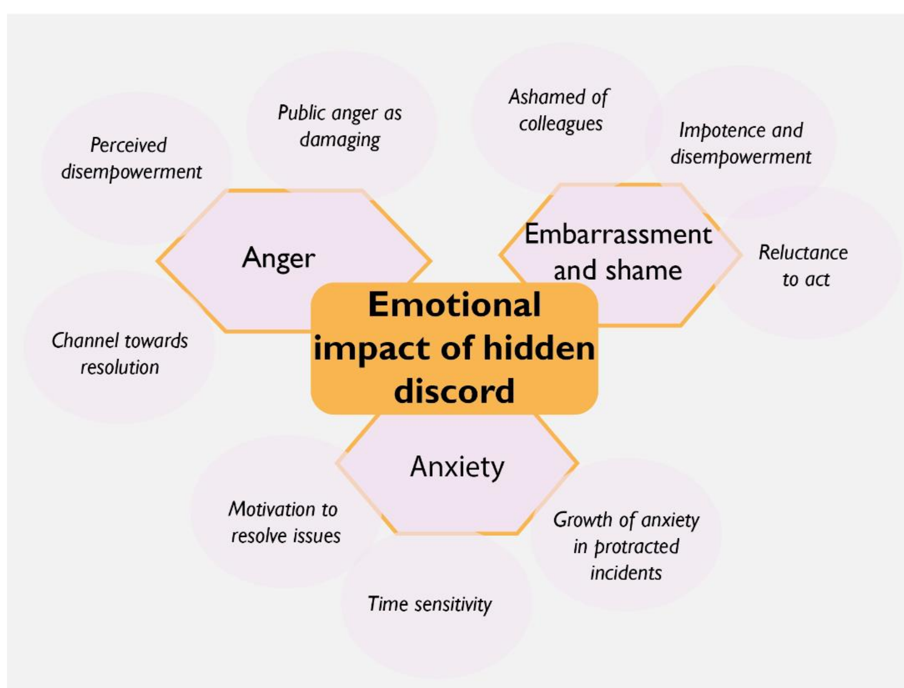

Figure 12 Summary of findings relating to the emotional impact of hidden discord

Anger

One regularly observed emotional response in incidents of hidden discord was **anger** (and related emotions such as **frustration and resentment**). Misunderstandings and hidden disagreements in globally dispersed teams often made team members feel antagonistic towards others in the group, frustrated at the process of revelation and resolution and, sometimes, motivated to right a perceived wrongdoing. Anger in these incidents was often accompanied by loss of emotional control, dissatisfaction with the team and distrust of those the anger was directed towards.

Anger was sometimes a **reaction to perceived disempowerment**. In these cases, anger either become a source of energy to reverse their perceived lack of power within a team (as in incident O(viii) or A(iv)) or was not acted upon creating a sense of frustration (in incident A(iii)) or resentment (in incident B(iii)). In many of these cases, anger at disempowerment rarely led to a successful resolution, particularly when the anger did not drive participants into action against the perceived injustice done to them. For instance, in incident B(iii) when Beatrix was forced by the inaction of the formal project manager to take an increasingly high-profile role in the project against her wishes she felt "*terribly resentful, obviously, because that was not [my] intention*" (Beatrix) and the incident was never entirely resolved. For speakers with imperfect language skills, linguistic misunderstandings also resulted in frustration: "*when it happens that I don't understand what the others say, I feel frustrated, [and] I feel frustrated when… the others don't understand what I say*" (Donatella).

In many cases, the anger expressed by team members could be channelled and lead to **action and resolution of issues**, especially when directed in a private manner. Where anger was expressed one to one, the recipient was often able to take the anger as a signifier that they needed to act quickly to resolve the incident and repair damaged relationships and trust. For instance, in incident O(iv) when delays in submitting a financial report had not been communicated, an angry email response from the financial manager led to a series of meetings between the two parties, submission of the report and replacement of the uncommunicative team member.

Public anger on the other hand, often led to a heightened sense of shame. This slowed down the responses to the underlying issues on an incident as public anger put the recipient in a defensive position and damaged personal relationships, as in incident A(ii) in the following chapter. Public anger was rare unless teams met face-to-face; there were no incidents which featured angry public email exchanges and it was rare for telephone conferences to have angry exchanges besides in Team B. In contrast, anger sometimes "*exploded*" in face-to-face settings, for instance on at least two occasions team members in Team A went "*berserk*" during team meetings (Alessandra). The inability or reluctance to express anger outside of face-to-face encounters may have prevented remedial

action between meetings and deepened the significance of incidents. In misunderstandings and disagreements anger can potentially become out of control and spread throughout the group.

Shame and embarrassment

Another common emotional response to hidden discord was **shame and embarrassment**. Shame in these situations meant that team members had negative emotions about themselves or their team and was most often due to being caught within a misunderstanding or a reaction to a team's ineffective response to an incident. Common situations where shame was a feature included participants feeling ashamed of misunderstanding a message or situation, and embarrassment with the emotional responses of other team members.

Whilst anger often led to action (or frustration that action could not occur) shame more often led to a **sense of impotence or disempowerment**. For instance, in incident B(iii), embarrassment was due to feeling a sense of danger to their dignity. Admitting weakness in a professional context was often a barrier to resolving issues. In another case a sense of impotence was due to overcommunicating where Elisabeta "*was starting to get embarrassed about sending more emails*" (Elisabeta) which presented a barrier for her to become clear over an issue. In both cases, embarrassment led to reluctance to intervene, to clarify a situation or to ask for further guidance.

In other cases, in response to incidents where authority figures in a project team had engaged in norm-breaking behaviour other team members felt ashamed of their managers and had lower esteem for the team, as in incident A(iv) in chapter 6. Shame on behalf of others could lead to **inaction and reluctance** to discuss norm breaking behaviour. This was particularly the case when teams were unfamiliar with each other. For example, in incident O(v) a new leader of an EU policy group had proposed a measure which would support her own country's needs rather than the bloc as a whole. This type of incident had not occurred before in the group: the group's administrator *"felt ashamed. He really showed it"* (Berta). Whilst these leaders made some attempts to change the policy, they were unsuccessful, in part as going against the new leader was also norm-breaking behaviour. Incident O(v) occurred after a leadership refresh process and the lack of familiarity with the new management may have made direct critique and redress more difficult.

Anxiety

The final common emotion in the incidents was **anxiety**. In anxious responses to hidden discord, team members felt unpleasantly aware of potential danger, worried about the team or a task and possibly defensive when they were being held responsible for the incident. Under the secondary theme of anxiety, other emotions were also noted including shock at the revelation of discord,

stress, and confusion at lack of control or understanding, general feelings of being upset, and the sense of being in an unpleasant situation.

In temporary work teams such as Teams A, B, C, D and E, **anxiety is already a common emotion in time sensitive teams**: "*you have also the anxiety of achieving the deadlines and the target as a group. And this [anxiety] interferes more in the process. In [a permanent advisory] group, you don't really have an anxiety… to come up with an end result*" (Eva). Anxiety is expressed in globally dispersed teams in a variety of ways, making knowledge sharing more difficult, or making groups rush to decisions, more anxious about sharing (Eva). Anxiety was heightened further during incidents often making participants feel "*uncomfortable*" and made conflicts more likely (Alberto).

In mild cases, such as misunderstandings and nonunderstandings, for instance when shocking information comes to light, the anxiety felt can quickly **lead to a resolution**. For instance, in incident E(iv), when it was revealed to Elisabeta that she considered as her organisational lead despite it not being her formal role, Elisabeta was able to respond positively and accept the role in the interests of the project, whilst also communicating her upset to colleagues in her own organisation. Anxiety in these cases was due to a surprise or sense of uncertainty after receiving new information and led to a positive response to minimise this anxious feeling.

Disagreements, more than misunderstandings, were associated with anxiety and tension. This was particularly the case for **disagreements that took months to be resolved** (such as incident O(viii)) or were not able to be resolved at all (such as incident B(i)). The uncertainty associated with a recognised but unresolved disagreements or misunderstandings in turn made the incidents more difficult to address as they required emotional intelligence on the part of the responsible managers and participants to avoid exacerbating fragile social situations. When anxiety was heightened to a degree that was deemed intolerable managers sometimes choose to repress the disagreement rather than resolve it. When levels of tension are high it appears that many globally dispersed teams do not have the capacity to defend against this anxiety and the tension can become too distracting. In these situations, managers often chose to supress the disagreement in the interests of the team.

Effects of hidden discord on teams

Codes under the aggregate code 'effects of hidden discord' covered the medium- to long-term effects the hidden discord had on the team and their tasks. This coding identified three types of effects: **inefficiencies**, **addressing underlying issues** and **splits within the team**. A figure summarising the findings related to the effects of hidden discord is shown below:

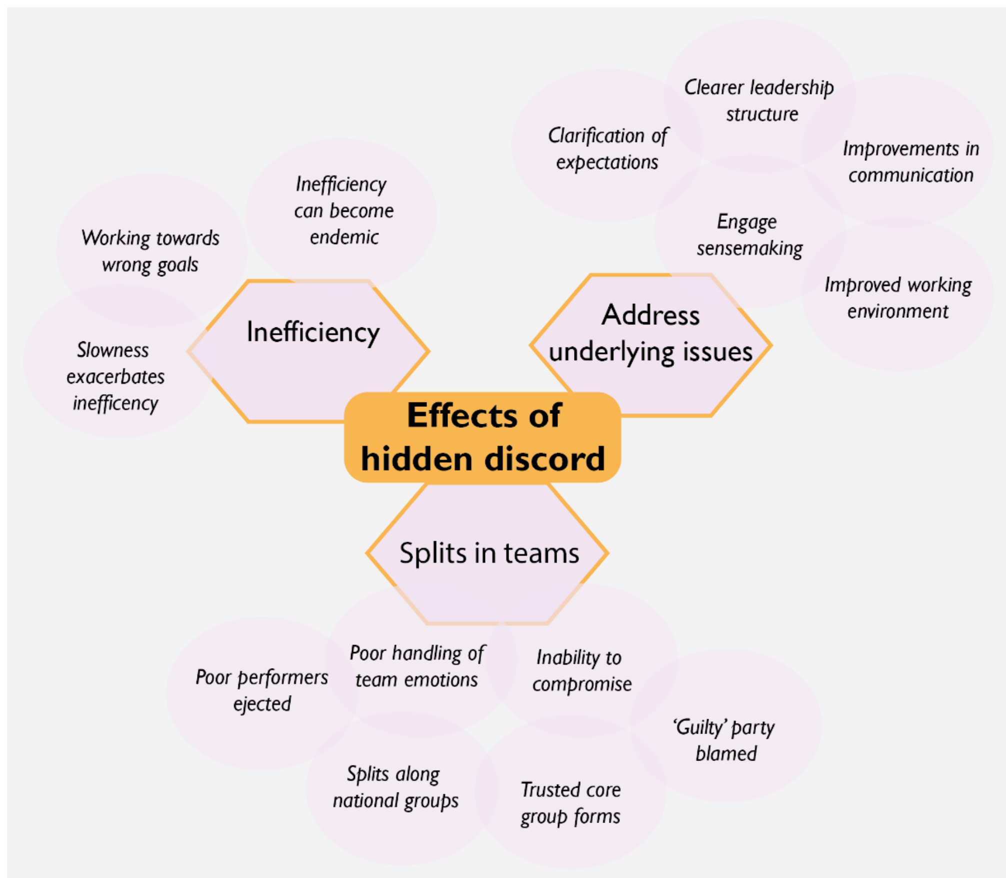

Figure 13 Summary of findings relating to effects of hidden discord

Inefficiency

The most obvious impact of hidden discord is that the team **loses efficiency** for the duration of the incident and possibly longer depending on its resolution. In each case, teams had to spend time whilst they are 'caught' with dealing with the discord and spend time attempting to resolve it. This could be a small amount of time such as less than a minute in face-to-face linguistic misunderstandings such as incidents O(i) and O(x), a few hours as in a case of mistaken identity such as O(iii) or almost a year in incident A(iii) when an important report was misunderstood and took over six months to revise.

One key feature of hidden discord was that noticing with an incident slowly could **foreshadow greater inefficiencies** later as the had misunderstanding developed or disagreement was discovered. In incident A(i), a clash of assumptions about definitions of terms, after identifying the lack of coherence in terms used, the resolution process caused "*lot of problems… for the first months. Then we sorted this out. But we lost a lot of time*" (Alberto). In more serious cases, such as O(ix) when it was discovered in the final meeting that a key activity had not been implemented by on partner, the loss of time means the project could not be completed as planned.

In some cases, inefficiency occurred as the team (or a segment of the team) were **working towards the 'wrong' goals**. For instance, in incident O(xi) a partner responsible for a report (unknowingly) did not follow the official instructions and wrote a report deemed irrelevant by the team leaders. It was also sometimes the case that the project direction had to be corrected after client meetings; these meetings could be a corrective for a team to reorient themselves, yet still clearly resulted in some embarrassment and loss of time for the project.

For protracted discord incidents, **inefficiency can become endemic** and a feature of the response, as delays by one part of the team were often reciprocated. In incident B(i), when a disagreement over the choice of development partner was eventually repressed rather than resolved, the project results were compromised from Bianca's perspective: "o*ne of the reasons why the project, which had a lot of potential, did not provide the expected outcome… was the bad choice of the partner who developed the game*" (Bianca). Whilst the team atmosphere was improved by not having one partner constantly disparaging another, the team had to accept that there were limits to what the group could achieve with the configuration of team members.

Address underlying issues

Whilst hidden discord is a distraction from planned activities, such incidents are always opportunities for a team to **engage in a sensemaking process** (Weick, 1995). In many respects, hidden discord occurs in teams that have struggled to develop functional communication tools or a communication culture that prioritises discussion of wider issues. When a team assumes agreement on a topic, discussion of important issues can sometimes be implicitly discouraged: as Donatella stated, if everyone agreed it would not help the team as they would "*never discuss*" anything (Donatella). Disagreements and misunderstandings then, represent chances for diverse global teams "*to find the team alignment. And 'here's always something… that has to be processed*" (Diana).

When a sensemaking process has begun, the team has created an opportunity to **address underlying issues**. Significantly, in many cases the issue addressed in the resolution process is not directly related to the incident but is adjacent to the issue, such as how communication technology is used, roles of partners or the tone of discussions. The issues addressed through engaging with the hidden discord clustered into four areas: clearer expectations, clearer leadership roles, improved communication, and improved working environment.

In many incidents, misunderstandings and hidden disagreements began in the context when participants were unclear what was expected of them in the team. Through the process of revealing their lack of understanding, **expectations became clarified**, even if the process was emotionally trying as in incident A(iii) in the following chapter. In a hidden disagreement in Team C, the team

were able to explain "*our different expectations and because they all were nice people… we could accept the different views and at the end it turned out to be very important that we had that discussion*" (Clovis). Having open discussions around areas of disagreement often helped project managers address issues in a transparent fashion, for instance, lack of understanding in one team about tasks to develop a user interface led to the project manager designing "*a huge spreadsheet splitting [tasks] up between all partners to make it fair*" (Claire). Once expectations have been clarified, managers can take preventative measures to ensure that team members remain aligned.

Incidents of hidden discord could also result in participants creating a **clearer leadership structure** as in incident A(ii) in the following chapter. Clearer leadership as an outcome was not always in response to a difficult incident: at times of discord over roles, participants often realised that team members expected leadership from them. This occurred with Elisabeta whose language proficiency and presence led others to expect that she would "*be the one to represent and to communicate*" despite her not having any formal management role until that time (Elisabeta). This realisation of others' expectations allowed Elisabeta to have a frank discussion with her colleagues and informally realign roles in the team.

Some incidents led to **improvements in communication** in the team, in particular, how to communicate with different people in a globally dispersed team. In these cases, *"the misunderstanding is the evidence*" that there are knowledge and interpersonal gaps in a team: "*[interpersonal] distances, cognitive distances, informational distances, differences which [are] always there. And for sure, some of these distances are less critical and may be covered, reduced by communication. And some others are related to… values*" (Donatella). Having incidents of hidden discord allows for the chance to both improve communication and to accept where interpersonal gaps are related to differences in cultural values.

Through going through difficult intercultural communication processes, project managers often learn to "*change your communication style for others*" which is "*a good thing to learn for any aspect of life, not just business*" (Claire). Taking a nuanced and tailored approach can remove some stress from interactions and build trust and understanding, allowing disagreements to exist without becoming an existential threat to the team.

Finally, even when communication breaks down during particularly painful incidents, in the aftermath and in resolving disagreements, the team can derive positive outcomes by working together to **improve the working environment**. This recovery process occurred on two occasions in Team A following incident A(ii) and incident A(iv) as shown in the following chapter. In these cases,

the incident was both a symptom of a "*very impolite*" working environment and an event that could have further exacerbated the poor working environment and so the team discussed and implemented actions to reduce the chance for later misunderstandings and conflicts.

Splits in teams following incidents

The most serious negative impact on team cohesion were **splits within teams**. In cases where this occurred, the team became splintered from their previous position or purpose and more separated following the discord. These splits came in a number of forms including damaged interpersonal relationships, an in-group forming who led the project, and an ostracised partner who is blamed for the incident. In most incidents where recognisable splits in a team occurred, there were two stages to the split: first an intermediate stage when compromise became difficult, then a second stage when different subgroups formed in a team.

In the intermediate stage, positions in the team over the core issue grew **increasingly distant** and sensemaking processes were avoided. The language used to describe these situations often invoked distance: "*the positions were becoming more and more far, far, one from each other*" (Ada) about incident O(iv) or "*people took very polarising positions*" (Alessandra) about incident A(iv). In these situations, teams had begun to find it difficult to compromise to solve disagreements and positions became increasingly entrenched. Such disagreements were particularly damaging in temporary globally dispersed teams because "*in our programmes, we need to have a minimum agreement on what to do*" (Eva) which is difficult during inter-organisational strife.

In large part polarisation was due to **clumsy handling of strong emotions in a group**, which did not respect the dignity of colleagues in a team. For instance, in incident O(viii), Carlo took up a highly conflictual position in respect to one partner which he now regrets: "*With the experience that I have now, I think it was too much, too harsh, too direct, and there was too much passion inside that*" (Carlo). In these situations of polarisation, disagreements and misunderstandings became normalised in the team and negative interpersonal impressions, bickering, and insensitivity becomes habitual. This in turn forms fertile ground for further disagreements and misunderstandings.

Following this stage where the norms of co-working were eroded, splits in teams often occurred. These splits can be clustered along **four different fault lines**: competence, guilt, trust, and nationality. Along the first fault line (competence) where partners were incapable of understanding or fulfilling their task as expected by the team, the partner could leave or be ejected by the team (seen in Team Z, Team E). Along the first second fault line (guilt), where a perceived failure had occurred, a partner could be labelled as 'guilty' and 'rejected' by the group without being ejected (seen in Team C, Team B, and incident O(iv)). Along the third fault line (trust), when a project had

encountered difficulties, a core group of 'trusted' partners formed who worked closely in a semi-permeable silo (Team D). Along the final fault line (nationality), with a team formed of partners with unfamiliar cultural backgrounds, teams could split upon national lines (Team Z). These four types of splits in reaction to hidden discord are explored below.

Poor performers ejected

In two incidents, individuals or partners left or were ejected from a team due to **poor performance** during discord. This type of split most occurred due to linguistic ineffectiveness, that is, the individual or partner involved was in an important position and could not fulfil an important communication role. For instance, in incident E(ii), the lead organisation of Team E was eventually forced off the project after failing to engage or participate in team meetings and tasks. The coordinator of the partner was not able to speak English, the *lingua franca* of the team. In another incident in Team Z, a translator who failed to keep up with simultaneous translation from English to Mandarin was replaced partway through a translation. Days later she quit the team to deal with a personal issue. In both cases, the partner or individual lost the esteem of the group and was either forced to leave or decided to when an opportunity was presented. These types of case were relatively straightforward in that the people were unsuited to their roles, particularly lacking the required linguistic competence, and the incidents provoked strong emotions, particularly shame and embarrassment.

'Guilty' party ostracised

The second type of split was more common, where the resolution of a hidden discord was to **blame a 'guilty' partner**. This blaming of one partner was seen in at least five teams: Team A, Team B, Team C, Team Z and in incident O(iv)). In incident B(i), one partner constantly blamed the IT partner for failings of the project, following several misunderstandings and disagreements between the partners. The IT partner's role was eventually reduced "*because everybody sees that things are not working. And so, you need to find the guilty partner."* (Bianca). In incident O(iv), a newly hired employee was blamed for "*not doing the work well at all*", which led to the partnership ending: "*in the end, they told me that, "Okay, we don't want any cooperation with your organisation anymore.""* (Daphne). In each instance where the responsibly for hidden discord was pinned upon one person or partner, interpersonal relationships deteriorated, and the project partnership usually did not continue after the initial end date.

Trusted core group

Another response to hidden discord in teams was a **trusted core group** forming which would lead on decision making. In teams where a trusted core team formed, discussion over decisions was

curtailed, avoided, or discarded, leading to a high incidence of undiscussed and repressed disagreements. This situation was most prevalent in Team D, where the Project Manager, faced with a large, diverse, and opinionated group of partners, worked closely with a small group. This split the decision-making power from the rest of the group, yet the Project Manager often gave the appearance of collective decision making. This dynamic created a number of further incidents of hidden discord (Daoming). This dynamic of the Project Manager going against an agreed decision without discussion was also common in Team E which was experienced as "*very confusing*" (Eva). **Covertly reversing decisions** was associated with managers who are "*not feeling very comfortable to discuss openly or to participate in decision-making or exchange views*" (Eva). When managers who find public discussion of project decisions uncomfortable is combined with opinionated partners, splits in team where decisions are made by trusted individuals may become more common.

Split by nationality

The final type of splitting occurred on **national lines**, that is, partners located in one country found trust and understanding difficult between organisations from different countries. It was common across teams for nationality to form a sense of familiarity which could form a thin skin around a group, yet this rarely resulted in groups split by nationality: for instance in Teams A and B, there was both rapport and obvious interpersonal strife between Italian team members which was often the feature of major incidents such as incidents A(ii) and B(i).

The only team which split upon national lines following hidden discord was Team Z, the British-Chinese collaboration. Perhaps relevantly, this was also the only team with only two partners and the only with partners from different continents. For hidden discord in Team Z there appeared to be a genuine gap in understanding between the partners which formed over numerous incidents; even after three years of co-working it was hard for interview participants to tell whether the discord "*is the result of genuine misunderstandings or of our [Chinese] partner being deliberately misleading*" (Zachary). This lack of understanding and trust in the team was the result of disagreements and cultural misunderstandings on how to do business together which began early in the project. For instance, payment for services and copyright of the training brand remained fraught and unresolved issues throughout the project. This issue of how to calculate days was not discussed before the contract was signed because "*we never knew there's this difference.*" (Zhenzhen). As a result of this disagreement, "*We never mention this anymore. Just don't talk [about] it…. We avoid conflicts*" (Zhenzhen). The impact of repressing disagreements and not openly discussing important issues has led to **poor quality and infrequent knowledge transfer**. This has created "*a big rumour mill and different people knowing different things*" (Zachary).

The process of disagreement has meant that Zachary could say "*I just basically don't trust [Zhenzhen]*" (Zachary). From the perspective of one of the translators who has personal relationships with both sides of Team Z, **both sides were trustworthy**: "*Even if there were some [misunderstandings], I guess it's not because someone did do it on purpose*" (Zongmeng). This was echoed by Zhenzhen, who said that she suspects she is not trusted: "*I'm afraid they misunderstood me and they don't trust me. I'm afraid [of that]*" (Zhenzhen). The cumulative effort of these cross-cultural misunderstandings was distrust of the Chinese partner and more strained relationships.

Managing hidden discord

This section examines aggregate codes relating to the management of hidden discord in globally dispersed teams: identification of triggers, preventing incidents and managing incidents that occur. As shown in the previous section, the effects of hidden discord are usually emotionally trying but the outcomes are often helpful for the team in its development. This final section of the chapter offers practicable information on how to both avoid incidents and utilise hidden discord when it arises so that it becomes an opportunity to improve team processes, that is, so that hidden disagreements are addressed rather than ignored or suppressed, and once realised misunderstandings are beneficial to the team rather than damaging. Identification and prevention of incidents can help unnecessary discord from arising so a team communicates well and had a coherent shared vision. This section also examines codes relating to managing hidden discord so that when discord does arise it is managed to minimise inefficiency, address systemic issues in the team and avoid damaging splits.

This section covers three aggregate codes relating to how hidden discord is triggered, how it can be prevented, and how it can be managed once it occurs.

Triggers for hidden discord

Triggers are the immediate causes of hidden discord, the action that directly precedes a misunderstanding occurring. Codes in this section link to the wider conditions that form hidden discord, as triggers occur in the context of specific conditions. Three types of trigger were identified from the second order themes: poorly designed communication, lack of verification, and avoidance of discussion. A figure summarising the findings related to triggers for hidden discord is shown below:

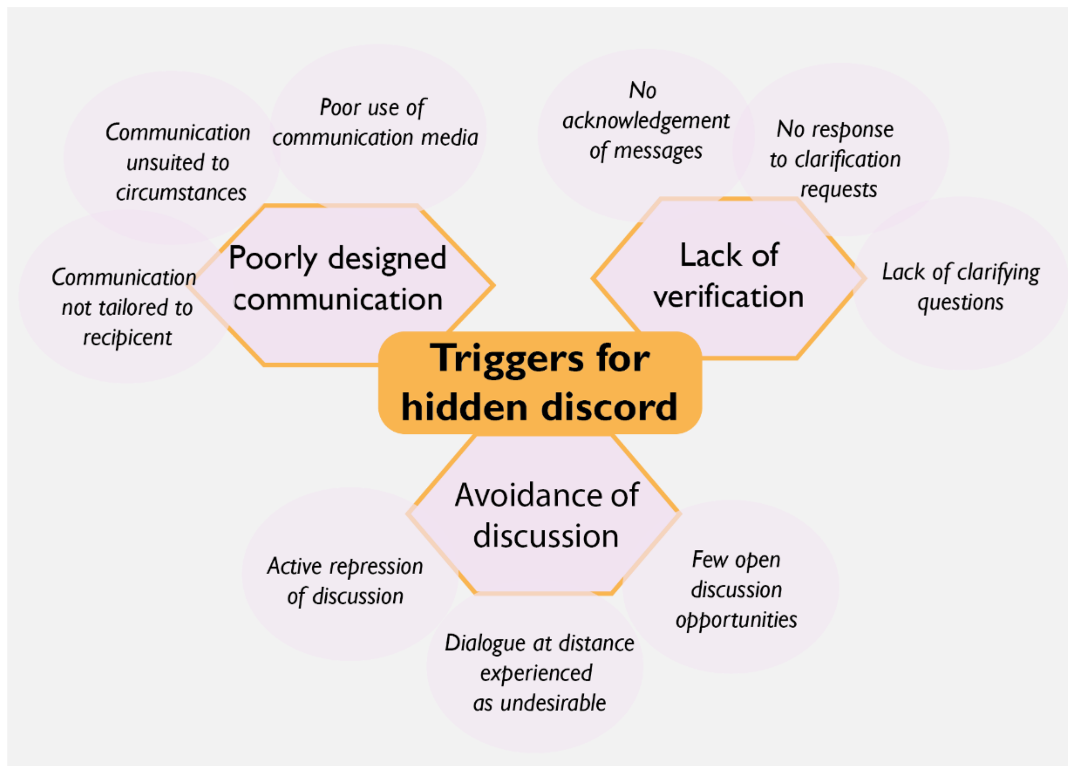

Figure 14 Summary of findings relating to triggers for hidden discord

Poorly designed communication

One of the main triggers was poor quality communication within an initial message, for instance instructions for a task. In such incidents a message was **poorly 'designed'**, in that it was not tailored to the recipients (their linguistic skills, communication needs, or prior knowledge) or their circumstances (using unsuitable media channels, or not taking account for the urgency of a task).

All types of misunderstandings began with communication that was **not sufficiently designed for its recipients**: the initial communication led to an erroneous assumption of understanding based on the experiences and context of the recipient, creating a misunderstanding. In misunderstandings of words poorly designed communication was often the trigger for a misunderstanding. In incident O(i), Berta stated during a decision-making process for funding for urban areas that she was "*against this city*", leading to recipients angrily question her whereupon it was revealed she had only meant she thought the city representatives had been unconvincing.

Some hidden disagreements, particularly **contained disagreements**, were also triggered by poorly designed communication. For instance in incident A(i) the initial communication on concepts in the project (such as 'competence' or job roles) were vague enough in the project proposal that each partner was able to assume that their concept was the agreed version, which masked the existence of disagreement until the first project meeting.

Unclear initial messaging is influenced by several conditions identified in this chapter. First and most importantly, **choice of media** to deliver a message (for instance using written media) often influences the clarity of communication. Email exchanges were also often the site of poorly designed messages creating misunderstandings through not tailoring the message to circumstances: "*[if I] write a short comment or a short reply to a message… they think, "Oh my God, he or she answered quite shortly so maybe she's angry*"" (Berta). In incident Z(i), the unclear wording in a contract triggered a misunderstanding, meant there was no legal recourse for either party and an uncomfortable compromise had to be made which satisfied neither party.

Two other conditions appear to influence poorly designed communications. **Language diversity** has an important influence over the quality of initial communications as poorer linguistic skills limit the range of vocabulary available to the speaker and their comprehensibility. Inability to communicate a message is linked to this trigger (Daphne). Finally, lack of **intense collaboration** influences the quality of initial communication, as team members who are unused to working together are often not as aware of how to design their communications to individuals as they lack familiarity.

Lack of verification

Another trigger for hidden discord is **lack of verification of communication**. In such cases dialogue within the team was rare, or a failure to clarify an initial communication directly triggered hidden discord, even where the initial communication was well designed. It is important to note the link between poorly designed communication and lack of verification, as both triggers may occur simultaneously, reinforcing erroneous assumptions of understanding or agreement. Unlike poorly designed communications, the failure to verify a message is most often the recipient's responsibility. However, there were several incidents where attempts to verify a message were ignored by the initial communicator. The most common contexts for this trigger were when a partner declines to ask for clarification of instructions, or the group were not afforded an opportunity to verify the meaning of a message. This trigger was mostly related to misunderstandings, though some disagreements were also triggered by lack of verification where a disagreement may have been raised but was not clarified and so remained unknown to the team.

Lack of verification can occur in three ways: lack of clarifying questions, no response to clarifying questions, and no acknowledgement of a message.

Lack of clarifying questions was a common trigger for misunderstandings. For instance in the linguistic misunderstanding of a word in incident O(xv) "*[W]hen we had our last meeting, we were speaking about something and that person said, "we can't do this". But I understand them saying*

"we can". And I said "no, I don't agree with you!"" (Anna). In this simple incident, Anna triggered a misunderstanding by not asking for clarification and assuming her comprehension was correct.

In other incidents, **requests for clarification went unanswered** which led to suspected misunderstandings which endured over time. This was a phenomenon often noticed in CMC by interviewees, "*You will ask a question and no one responds*" (Dagma). During both telephone conferences and email exchanges, it was often noted that partners might ask for clarification and receive no response (Alessandra).

Related to clarification of instructions was **acknowledgement of instructions**. Unacknowledged instructions appear common across globally dispersed teams: *"the most common problem is that people do not answer to you. You ask for something, they never answer it"* (Daoming). Such incidents appear trivial but can become significant, especially at an interpersonal level as unacknowledged communications makes the communicators *"feel that they don't care*" (Daoming). In incident O(ii), a misunderstanding was triggered after a request for documents was ignored for several months causing a misunderstanding and deterioration in relationships (Ada). In this case the misunderstanding was triggered by lack of information given to the relevant manager, leading the manager to perceive they were hiding their lack of engagement in the project.

Lack of verification is linked to many of the conditions seen in globally dispersed teams: channel specific communication, disempowerment, clash of communication habits, linguistic diversity, and intensive of collaboration. Lack of verification is a particular issue in online communication: many interviewees viewed CMC to be less engaged than collocated communication. For **channel specific communication**, communication in telephone conferences is often "*not effective*" (Daoming). Telephone conferences are characterised by overlapping talk, and team members "*are not really taking full attention, they are doing other things. Sometimes it's not very productive and sometimes some people like to talk a lot and it's not really proceeding but all others are sleeping or doing other stuff"* (Carl). Under these conditions (low attention, difficult to follow conversations, dominant voices), unclear instructions are difficult to query at a distance: "*you don't [clearly] hear a person speaking, how something is meant. And it meant something to you, but you don't have the occasion to ask for more clarification*" (Berta). On other occasions there may be opportunities to ask for clarification but these are not taken due to **unfamiliarity**: "*sometimes people in new teams, they're a little bit shy to… say, "Okay, please explain once more. I did not understand""* (Clovis).

Avoidance of discussion

The third trigger for hidden discord is when a team **avoids discussion**. This trigger is mostly related to disagreements rather than misunderstandings, given that discussing a topic can reveal

disagreement. The avoidance of discussion may be an active decision (closing opportunities for discussion) or a passive decision (not opening new opportunities for discussion).

In most cases, hidden disagreements were triggered by **conscious decisions to avoid discussion** on a topic. In all cases of undiscussed disagreements, team members decided against raising a discussion on a topic, often because it may have been "*embarrassing*" to one party to do so (Beatrix). In cases of repressed conflicts such as B(i), the disagreement between two partners was hidden under the surface of interactions by the project leader requesting to curtail conversations about the incompetence of another partner.

Whilst specific instances where a discussion was **passively avoided** are more difficult to identify, many hidden disagreements were triggered when there were no opportunities to discuss a topic. This was most often the trigger for contained disagreements such as in incidents A(i) and D(iv), where participants unknowingly disagreed over the meaning of key concepts in the project. In both incidents, there was no discussion at the earliest stages of the project of how partners understood important concepts. In such incidents, the trigger was not a decision by a project leader to leave the disagreement undiscussed, but the team did not create an opportunity to discuss potential areas of disagreement; there was a passive avoidance of discussion which meant that the areas of disagreement only became known when these topics became relevant to the project.

Avoidance of discussion appears to be a feature of globally dispersed teams as it is linked to several conditions for hidden discord explored above: intensity of collaboration, organisational contestation, cultural diversity, clash of communication habits, and channel specific communication. Low levels of collaboration, extreme cultural diversity with clashing communication habits, teams with organisational contestation and teams that rely on asynchronous communication media such as email will more often choose to avoid discussion as **dialogue is experienced as more difficult** in general. Teams where these conditions are present to a greater degree may also struggle to develop strong norms for open discourse on difficult issues as they do not have underlying conditions that lubricate discussions (such as a shared culture and way of communicating, close collaboration, lack of conflict, or frequent use of synchronous media).

Preventing hidden discord

As the sections on conditions and triggers showed, globally dispersed teams have a large range of potential situations that may lead to hidden discord. Codes in the following two sections focus on how these conditions could be managed so that hidden discord can be avoided or set up to manage better when it occurs. This section explores the aggregate code on how to avoid activating the triggers outlined above and how these triggers can largely remain deactivated in globally dispersed

teams. The three main avenues for preventing hidden discord identified in the coding were second order themes 'linguistic competence', 'communication competence' and 'accommodation of difference'. Where a team had sufficient linguistic and communication competence and an atmosphere supporting accommodation of differences, serious incidents of hidden discord were rarely seen. A figure summarising the findings related to preventing incidents of hidden discord is shown below:

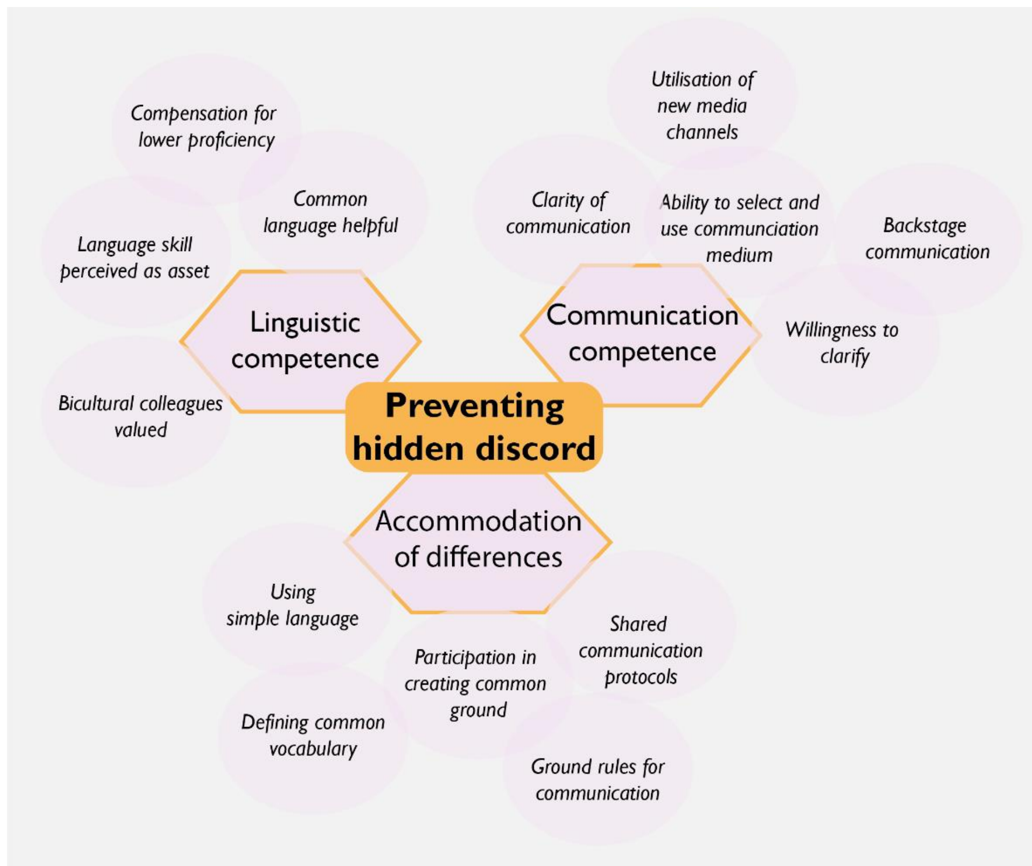

Figure 15 Summary of findings relating to preventing incidents of hidden discord

Linguistic competence

Communication, at its most basic level, relates to language skills. Language asymmetries appeared to be a significant issue in creating hidden discord in globally dispersed teams. For instance, language skills were an underlying issue in most of the Team A incidents explored in the following chapter.

In ideal scenarios, language proficiency in the team's *lingua franca* should be high throughout the team. Globally dispersed teams need to have sufficient linguistic skills amongst team members to have the capacity to communicate clearly and understand messages. Many interviewees saw it as important to have a cohort of team members with an excellent grasp of languages. In line with the importance of linguistic competence, was the findings that language skills are **perceived as an important asset** by other team members, and even a source of authority and power. Native English

speakers were sometimes valued by teams, despite common issues with communication style, for instance in preventing linguistic misunderstandings (Berta).

In situations when language skills were asymmetrical, it appears particularly useful to have some team members who were **bicultural**. For instance, Alessandra has native speaker level language skills in two languages (Italian and English), and Project A had a large cohort of Italian nations who were expected to communicate in English during the project. Alessandra was often able to mediate between the Italians and the rest of the group, interpreting behaviour, which was seen by other team members as aggressive, as simply an 'Italian' communication style: "*When people communicate to me in my own native language, I can maybe immediately see what they're trying to say because… I… connect with what they're trying to say which other people might not*" (Alessandra). Dual-national team members can be an important asset in a team which helps a team to notice cultural misunderstandings and disagreements at an early stage.

Where very few members of a team were competent in the team's *lingua franca* (or a *lingua franca* did not exist), hidden discord was more likely. Where language asymmetries were such that there was **no common language**, such as the Chinese-British collaboration in Team Z and Spanish-Chinese collaborations described by Daoming, there is an even greater reliance on the linguistic competence of mediators. In these cases "*you would constantly be bumping into misunderstandings if they were there*" (Zachary). Where translators were used it was important that they were also sectoral experts. The burden of interpretation is often felt to be "*exhausting*" by the translators as they are a central part of the group dynamic but are not often recognised as such (Zongmeng).

The presence of team members with poor linguistic skills did not inevitably lead to misunderstandings because there were methods to **compensate for lower proficiency**. Where linguistic resources were scattered in a team, such as Team E, there were techniques used to militate linguistic weaknesses by consistently checking understanding. For instance, Eva noted that she often checked her understanding by looking at the meeting minutes and attending meetings alongside a trusted colleague who she could check her understanding with as a meeting progressed (Eva). These activities help team members to interrogate their own understanding which can compensate for poor communication design and thus avoid one trigger to hidden discord.

Communication competence

Separate to linguistic skills, **communication competence** was the capacity in a team to communicate effectively with one another. Having a team which possess good communicators help globally dispersed teams to avoid triggers to hidden discord such as poor-quality instructions and avoidance of communication. Communication competence was one of the most densely coded categories and

occupied a central position for most interviewees who discussed how to ensure a team had few damaging experiences of hidden discord, so that misunderstandings could be avoided and disagreements could be openly discussed. Some interviewees, such as Daphne, insisted that general communication skills were the most helpful asset in developing an effective team that delivers on its objectives: *"Communication for me inside the project is the key factor for the success of the project*" (Daphne). The presence of skilful communicators also helps teams to navigate some conditions of hidden discord such as clash of communication habits, channel specific communication, linguistic diversity, and cultural and national diversity.

Communication competence covered three issues as presented below: clarity of communication, willingness to clarify, and ability to select a communication medium to fit communication purpose.

In terms of communicating instructions or messages effectively, what appears important is to have a **clear message** and use the resources you have (for instance language, media, and repetition) to deliver the message as clearly as possible:

> "*communication is not based only on the language because if you want to communicate something, you find the way to communicate it. If you don't know exactly what you want to communicate, you will not find a way to communicate it anyway, even if you speak the same language with the other person*." (Daphne)

For Daphne, regardless of language skills, the ability to clearly convey a message is crucial, particularly given that globally dispersed teams usually have team members with low language skills. The importance of communication competence was shown in Case E(iv), where Elisabeta was pushed by colleagues to attend face-to-face meetings *because "they actually feel that I communicate much better what is needed to be communicated than they would*" (Elisabeta). Whilst predicated on sufficient linguistic capability, the capacity to communicate clearly is seen as one of the most important factors in preventing hidden discord in globally dispersed teams.

The second aspect of communication identified was in **asking for clarification**, what is called in sociolinguistics as entering a 'clarification cycle' (Pietikäinen, 2018), and shown above to be an important trigger for misunderstandings. Asking for clarification is particularly challenging for dispersed teams as participants in formal telephone conferences or email exchanges often find checking comprehension to be disruptive and embarrassing. However, some interviewees such as Clovis, make a point of asking for clarification whenever they do not understand: "*If you say, "So I do not understand but I do want to understand. But please clarify what you mean", and it's much better than to stay silent and you didn't get the word*" (Clovis). By interrupting and asking for clarification,

team members fulfil a group function in helping others who may have remained silent despite also not understanding.

Others avoiding direct interruptions and find other methods to understand situations. One method of clarification taken by Alessandra is to engage in **backstage communications** to understand behaviour: "*I have informal conversations by virtue of I could just walk out and say, "Hey, what's that about?""* (Alessandra). In this way personal relationships are used to find backstage methods of presenting their lack of understanding and opening a dialogue to resolve the issue.

The failure to persistently ask for clarification is one of the key triggers for hidden discord to develop and so the ability to **follow up on unclear communication** is an important component to ensure shared understanding. For instance, in incident E(v) Eva and a colleague completed a search task over several weeks but identified the wrong type of case. Whilst "*I was doing the search, with [my colleague], we were not feeling very confident if what we were doing was actually right and that was the issue*" (Eva). Clarification can potentially save time but is often avoided due to potential embarrassment.

The third component of communication competence in globally dispersed teams is skill in **selecting and using communication technologies** for different purposes. In hidden discord in GVTs this was often a matter of utilising synchronous media when a gap in understanding or disagreement was suspected by a project manager. In Team B, several hidden disagreements were encountered throughout the project and the project coordinator attempted to resolve these as soon as she noticed them during emails or telephone conferences: *"I had to pick up the phone, and as soon as I picked up the phone and spoke to people, it was okay. Because we can talk about it, we can work it out*" (Beatrix). Several interviewees (such as Alessandra and Claire) also noted how convening emergency face-to-face meetings to resolve discord was extremely effective, whilst Edwardo advocated more frequent in person meetings, even if not all team members came to all meetings, to improve understanding in the team.

Another approach for managers was explore **new media channels** which possess new communication affordances that suit both knowledge transfer and shared understanding. One recently developed communications option is collaborative documents such as Google Documents or Word Online. For instance in email communications, such as those seen in incident A(ii) in the following chapter, "*you can have a specific response to a few things, and it becomes very difficult to follow the conversation quite quickly*" (Dante). The level of interaction between team members using synchronous documents is "*a little better mostly because it's just that you are sharing additional*

information on top of shared content and shared knowledge that you have embedded in the document. So, the interaction is a little richer" (Dante). These documents were rarely used in the teams discussed yet they offer a combination of knowledge sharing and sensemaking that is grounded in a collaborative task.

Accommodation of differences

The final secondary theme relating to prevention of hidden discord was a collection of practices that allow diversity to exist and be contained within globally dispersed teams. Allowing room for different habits, views and linguistic levels, teams were able to **accommodate differences** and thereby alleviate several conditions that as associated with hidden discord, such as cultural and linguistic diversity, pre-existing disagreements, and organisational contestation. A culture of accommodation can also help to avoid triggers to hidden discord by making discussions easier to navigate and emotional responses easier to manage. For instance, using simple language, accommodating how team members from other cultural backgrounds communicate, and creating norms of tolerance for disparate views all support accommodation of differences in diverse teams.

Practices that encourage accommodation of difference were clustered in three areas: simple language, shared communication protocols, and group participation in creating shared norms and vocabulary. These three categories will be examined below.

One of the most expounded techniques of reducing the chance of misunderstandings was to **pay attention to the complexity of language** used. Using simple language is helpful to team members with lower language proficiency in the team's *lingua franca* and signals to team members that their comprehension is important. This can be achieved by attempting to use commonly understood words, rephrasing, and creating redundancies in communication such as sharing meeting minutes to support comprehension of the meeting. These practices can reduce the risk of team members with poorer language skills from disengaging and feeling embarrassed and stuck in the team.

Besides using simple language, some teams managed to prevent hidden discord by introducing **communication ground rules** and processes (Dante). Examples of communication rules were sending document and receiving comments in advance of meetings, having clear roles in meetings (facilitator, minute taker) and shorter more regular phone calls with a small number of participants. Diana gave an example of such carefully planned collaborations with Daoming: "*[Daoming] gives us a lot of feedbacks and input and maybe we prepare everything by exchanging emails before. And then we have this quick, half an hour calls when we look at the outputs together, and we hash down the details. And I found this very effective. And so the telco, it's really well-prepared before…. We go through the outputs together and we give ourselves tasks for the next step*" (Diana). Diana believes

that these communication practice also work well with larger meetings, particularly the importance of preparation (Diana).

Instituting **communication protocols** is one of the most effective ways to improve knowledge sharing across a team. Many improvements to communication are not regarding selection of media, but how and for what functions a medium is used, such as a calendar tool for arranging meetings (Dabir). Having both appropriate tools and practices that support the effective use of those tools can avoid unnecessary hidden discord in teams.

The final example of creating a culture of accommodation in globally dispersed teams was **whole group participation in creating common ground**. According to Diana, it was important at the start of a globally dispersed team to collaborate in making common definitions of terms, setting the approach and framework of the project, and agreeing the problem that the project was set up to address (Diana). Without this foundation, it is difficult for a team to create a coherent communication culture across the whole team. Having a common set of terms, agreed approaches and problem to address helps team members to link the different parts of a project, so that the different tasks in a project are "*feeding one another*" (Diana). The impact of not creating common ground is for every interaction to start "*from the beginning*", where the team is fragmented and "*everyone is working by [themselves]*" (Diana). Creating common ground is particularly important when team members have different sectoral backgrounds (Anna, Diana).

One of the most useful of these practices was **defining a common vocabulary** in a team. Creating a shared vocabulary is not a matter of writing a document with definitions but is accomplished through deliberation and experience: "*[a shared vocabulary is] really something that you learn by doing it and living it and having to work first for a common goal, and you really have to develop the team vocabulary*" (Diana). Collaboration on basic terms is a difficult task in cross-sector work and requires particular efforts to do so. For instance, in incident D(iv), an early report in Team D was to publish a co-authored book on some of key concepts of the project. Whilst the book was successfully published, "*we didn't manage properly to involve everyone in the writing of the book* (Diana). As a result, other partners in Team D found the contents difficult to understand and rarely used the publication in discussions or in the project more widely. This incident illustrates the importance of collaboration when creating a "*shared vision*" in a team, despite the potential for open disagreements and conflicts when having dialogue on the topic (Diana).

Managing incidents of hidden discord

Whilst some incidents of discord can be avoided, it is also important that when incidents do happen, they are **managed in a way that produces benefits to the team**. Hidden discord incidents appear to

be a feature of culturally and linguistically diverse teams operating at a distance, rather than an abnormality. For Donatella, globally dispersed teams will always have hidden discord, but it is possible to deal with these situations: "*distance is always there. Differences are always there. Misunderstandings are always there. I don't see this is a problem*" (Donatella). As acknowledged in the section on effects, hidden discord can have positive effects upon a globally dispersed team and so incidents can be viewed as opportunities to understand underlying problems in a team. This section explores the aggregate code, managing incidents of hidden discord, to present findings on the most relevant skills, resources, and approaches to manage hidden discord so that it helps teams: emotional skillsets, strong interpersonal relationships, and emerging leadership. A figure summarising the findings related to managing incidents is shown below:

Figure 16 Summary of findings relating to managing incidents of hidden discord

Emotional skillset

As shown in the section on the effects of hidden discord, a significant driver that determines whether an incident of hidden discord is of net benefit to a team or not is how a globally dispersed team deals with emotions. One secondary theme deriving from interviewee data highlighted that when a team had key members with **emotional sensitivity**, this could help with the emotional

impact of hidden discord. Beyond this, teams with the capacity to sensitively deal with emotive situations can also mediates effect of conditions that produce hidden discord such as clash of communication habits, organisational contestation, and disempowerment.

An **emotional skillset** was viewed as important in several contexts, forming part of one's communication skillset in a globally dispersed team. First, in many teams there are people who have "*a problem in communication, usually… afraid to speak. And [they don't] speak at all"* (Daphne). Some interviewees demonstrated they could identify when a team member is struggling to understand and were able to help them with sensitively.

The second aspect of emotional sensitivity was for managers to **remain calm during sensitive discussions**, such as when a team member had been embarrassed. In some cases of disagreements, such as O(viii), displaying anger exacerbated the discord between different parties and entrenched positions leading to a longer period before the disagreement could be settled.

The third emotional skill is the maturity to **recognise when to compromise** (Claire). Cases where hidden disagreements persisted over a long period were often when the parties involved were unable to moderate their positions and compromise, such as in O(viii) and B(i). In these cases, the lack of compromise led to one side feeling they had 'lost' and that they were ignored.

The fourth aspect of emotional sensitivity, relatedly, was **accepting differences of opinion**. Rather than viewing all disagreements as the opportunity for a conflict, when team members can manage their frustration, a project is often able to continue towards a common purpose (Eugenia). Accepting differences of opinion was often difficult to apply as tolerance of disagreements in some cases can split a team and leave crucial questions about the direction of a project unanswered (Bianca).

Another related skill was in **allowing difficult emotions to be expressed and addressed**. This recognises that emotions are not something to be avoided in professional encounters but are a natural aspect of human relationships. In these situations such as incident A(iv), rather than emotional control, dropping a polite mask and displaying true emotions can be helpful for a team to escape a long impasse, where a team have been cautiously avoiding discussion of an important topic. Heightened emotions are most likely to occur under several conditions identified earlier in this chapter: organisational contestation, clash of communication habits, disempowerment, channel specific communication (specifically face-to-face) and linguistic diversity. These conditions can each produce situations which are difficult to navigate, and, whilst allowing difficult emotions to be aired is important, it is possible to manage situation through sensitivity and even humour: "*You need a lot of self-irony. You have to be ready… for the embarrassment of it*" (Diana).

The final aspect of emotional skillset was **sensitivity to different communication cultures**. The ability to comprehend when discord is due to different cultural communication patterns was seen as a bonus by several interviewees (Alessandra; Beatrix; Daphne; Eugenia). For Beatrix, working in globally dispersed teams requires "*quite a lot of sophistication and understanding of where different nationalities come from and how they talk and what the meeting cultures are and team discussion cultures"* (Beatrix). In practice, this sophistication often involves interpreting unexpected emotional tones in communication. Having team members who can accurately interpret different communication styles helps to understand messages in a multinational team with clarity.

The importance of **communicating through emotional inter-cultural misunderstandings** was shown in incident O(xxii). This was a misunderstanding over a venue hire at an historical building in Italy where the German guests found out they could not hang posters on the walls. This caused a major emotional reaction where the Germans became "*shocked and panicked and angry*" (Diana). After several hours of the Italian hosts becoming increasingly anxious, the hosts found some metal structures in a cupboard that the posters could be hung on so that "*everything went well, but it took really a certain level of creativity*" (Diana). Whilst the host's initial reaction was "*disappointment, horror and shock"*, Diana (as a German-speaking Italian) was able to mediate and help the hosts understand that Germans are used to "*follow schedules and being everything prepared before and having everything under their control*" (Diana). She understood the issue as one of "*cultural difference because it's really different ways of managing last minute decisions*" (Diana). Diana was able to understand and mediate the behaviour and reactions to find a resolution that suited all sides.

Strong relationships

'Strong relationships' was a secondary theme within managing hidden discord. This theme relates to the **intimacy, depth, and strength of relationships** between individuals and organisations in globally dispersed teams. When familiar relationships develop in a team, they can act as resources that help ensure there is a degree of shared understanding in a team and give more capacity to deal with hidden discord. However, developing these relationships, even over time, is not a given in dispersed teams: *"The most complicated thing is understanding each other and even develop a trust or relationship which, of course, is also based around an understanding*" (Carlo). Interpersonal relationships can help militate against the most damaging outcome seen in hidden discord in globally dispersed teams (splits in a team) and make it more likely that a team can avoid cycles of accusation and counteraccusation to address the underlying issues that caused the discord. Interpersonal relationships also help with some of the conditions that form the context of hidden discord in these team, by making organisational contestation and disempowerment less likely, cultural diversity more acceptable and make intense collaboration more likely.

When a team has several members who have **previously collaborated**, this may protect against severe hidden discord. Experience of collaborating creates familiarity which breeds patterns of interaction that may initially have been shocking but become understood over time. For instance, Daoming, as a Chinese man working in Spain, finds that native Spaniards often *"hide… the meaning they want to express. I think this is quite different [to Chinese people] so maybe sometimes I made myself very rude or very aggressive*" (Daoming). However, this perceived aggression does not result in misunderstandings anymore because "*I know my colleagues well and they know me well as well, so normally they can expect what I want to say, and I also understand what they mean, so this will eliminate a misunderstanding*" (Daoming).

Having **previous collaborations** also provides a basis for trust which is another important resource in navigating incidents of discord. In teams with long-standing collaborations and high levels of trust there was a lower incidence of communication problems. For instance, communication in permanent teams is "*somehow easier because [the team has been] going on for many years, and more or less, we know what to expect from each other*" (Eva). In these groups there were few measurable targets with accountable timelines (Eva), and these teams had a longer history together, with established relationships and communication patterns. However, whilst previous collaborations can help with hidden discord, forming teams based upon previous collaborations can create "*an old boy network*" (Elliot) and over-familiarity may be a constraint to ambition, creativity and getting the right skill mix in a group (Dante).

In developing clear and honest communication **trust and rapport** appear most important and are strong resources to draw upon during incidents of hidden discord. There were several factors that helped to build trust such as using a variety of formal and informal technologies to communicate, such as WhatsApp. Instant messaging systems, being generally used more for friends and family, may provide an affordance to develop more friendly relationships (Dabir). In addition, sharing a language can also strengthen interpersonal relationships and shared understanding (Dabir). It was notable that incidents in teams without a common *lingua franca* such as the Chinese-British collaboration (Team Z) were characterised by low trust and the incidents of hidden discord were rarely managed effectively: the usual management method was suppression of discussion on the topic. The ability to suspend open accusations about other team members was crucial to avoid negative projections and manage hidden discord in an effective way.

Whilst trust is useful when incidents occur, a trusting environment also was a factor in triggering several cases of contained disagreement. In these cases, participants assumed shared understanding which was revealed in conversation to be untrue (for instance incident B(ii)). In incident O(ix), an

organisation was trusted to be working on a task only to be revealed to have not done so when publicly forced to present their progress. Whilst broken trust may provoke anger, in incident O(ix) Interviewees Elisabeta and Elliot were understanding of the partner, seeing it as 'typical' rather than nefarious behaviour, likely because of the long-term relationships in the team and strong affect-based trust. So, whilst affect-based trust may have provided conditions for the incident to occur, **trust also mitigated against negative effects** on team cohesion.

Emergence of leadership

The final secondary theme under the aggregate code 'managing hidden discord' was **emergence of leadership**. During incidents it is important for managers to increase their presence as mediators and decisionmakers. However, there is a danger of dependency of existing leaders in a group and the burden of leadership during discord can create a high cognitive load at times of tension which seems often to overwhelm leaders of globally dispersed teams. In this context, often new leaders arise in a group can help resolve difficult situations. When leadership emerges during an incident of hidden discord it often helps a team to realign itself, address underlying issues and deal with anxiety. Emerging leadership can address some of the conditions in globally dispersed teams that create hidden discord such as pre-existing disagreements, using appropriate communication channels, and virtual team challenges such as dispersal.

Having distributed power in a group is particularly important in globally dispersed teams as centralised control is difficult to enact: "*when you have a distributed network of responsibility, you don't put yourself in charge of those things that you think others have to carry out…. I think the issue is how much you share of the work of the others*" (Donatella). Distributed leadership was not the norm in the teams examined. Because leadership tended to be concentrated in one or two figures (usually a project manager and project director), examples of distributed leadership only arose after a **failure of leadership**; failure allows other sources of authority to exert influence as they are needed by the group.

This cycle of leadership failure and emergence was very often seen when incidents of hidden discord became out of control, when potential leaders of the project emerged and became increasingly present. In Team B Beatrix "*took over*" during interpersonal discord and operational problems despite being a Director rather than manager of the project because a "*more senior approach was needed"* (Bianca). In Team E, Elisabeta was pushed into a leadership role so that "*now I'm controlling all the deadlines and the tasks and everything that has to be done…. Even though I'm not the coordinator*" (Elisabeta). These examples may demonstrate that, when leaders are not immediately

apparent in a team during hidden discord, they eventually emerge from the group to push the team resolving difficult situations.

At times when an incident has already occurred and is not retrievable, it is sometimes important to be **flexible, decisive and settle upon a clear solution, even when this is imperfect** and not ideal. In incident O(xi) where two reports were written as the first was misinterpreted, the solution to repeat the task was somewhat confusing, but did not "*divide*" the group (Eugenia), only led to wasted time. In such circumstances, attempting a full resolution by forcing the original authors to rewrite the report would not benefit a team: in a similar incident (A(iii)), a report not fit for purpose was widely critiqued and the authors were made to revise their report over a series of months, leading to anger, shame, inefficiency, and a low-quality report. When leaders are inflexible and publicly confront team members with their 'mistakes', the participants are publicly shamed. Instituting solutions that are simple and 'good enough' in embarrassing situations may help a team avoid potentially protracted discord and benefit the team by drawing a line under the incident.

Summary

This chapter presented the typology developed of hidden discord in GVTs and the results of the data structure. The typology addressed four primary topics of discord (purpose, roles, tasks, and words) and one secondary topic (norms of behaviour). Seven types of hidden discord were also introduced: three sub-types of misunderstanding (unrealised misunderstanding, contained misunderstanding and uncontained misunderstanding) three sub-types of hidden disagreement (undiscussed disagreement, contained disagreement, and repressed conflict), and nonunderstanding. Three conditions producing discord were all introduced: virtual team context, communication patterns, and power and contestation. Four effects were also shown: emotional reactions, team effectiveness, resolution of systemic issues, and splits in teams. Finally, management of discord was through identifying triggers for discord, preventing discord, or management of discord incidents.

Chapter 6 Analysis of critical incidents: case presentation

This chapter focuses on the critical incidents identified from the research focusing upon one team (Team A). This chapter offers both a description of incidents and an analysis of the significance of these incidents to the teams to understand the micro-interactions that led to the misunderstandings and disagreements that occurred. Whilst the preceding chapter offered an analysis in of the data in aggregate, critical incidents form a central part of the research given the methodological focus on critical incident interviews. The findings from these critical incidents are presented to support understanding of these the pathways and characteristics of hidden discord in global teams: why they deserve study, what they look like in practice, and what significance they have for globally dispersed teams.

A purpose of this section is to illustrate to the reader the nature and significance of different types of hidden discord. As an exploratory study on a relatively novel topic, these examples are intended to demonstrate how important hidden discord can be to some globally dispersed teams. I have chosen to illustrate these incidents using a *team* to demonstrate: first, the processual and interrelated nature of misunderstandings in virtual teams; second, how important the staging of the discord can be (and what timing signifies); third, how hidden discord can overwhelm a team when they encounter multiple incidents simultaneously, and; finally, to apply the typology of hidden discord to incidents showing that incidents of the same type can have dissimilar pathways and effects, even when the same people are involved.

Introduction to Team A

This chapter describes incidents that occurred in Team A. This team was notable for having a mixture of types of hidden discord throughout the project. Analysis of the incidents in Project A introduces the pathways of hidden discord in globally dispersed teams. These cases also afford a basis for further analysis in the discussion section by demonstrating some of the conditions and impacts of these incidents on globally dispersed teams.

Team A was selected as the case location for several reasons. First, these incidents had the greatest amount of crystallisation, that is, the most data available from a variety of perspectives. This allowed me to present multiple viewpoints on each incident and use texts (primarily in the form of meeting minutes, evaluation reports and emails) to add further clarity to the sequence of events and outcomes of the incidents. In addition, the project had ended at least two years before the interviews which seems to have led to several incidents being identified which had a significant

impact on the outcome of the project in retrospect. A longer-term perspective meant the incidents selected were generally important to the outcome of the team rather than merely frustrating the interviewee at the time of interview. Finally, the interviewees were each crucial to the incidents; besides incident A(ii), the primary participants in the disagreement or misunderstanding were interviewed. This gave a rich first-person account of the incidents. This was important given that emotion and affect emerged as significant analytical categories according to the typology of hidden discord and the impact of these incidents on teams.

Pseudonyms have been created for the interviewees to help the reader follow the incidents.

Description of Team A

The purpose of Project A was to develop an online training platform which delivered modules to social entrepreneurs and retailers for a specific sector[9] across Europe. Project A were involved research, education, and technical development. The project was funded by the European Commission for three years (October 2013 to October 2016) and, although the project formally ended four years ago it has been sustained after the funded period ended by two of the six partners.

Team A was formed in response to a call for proposals by the European Commission on using digital technologies to support entrepreneurship through education. The project originators were two Italian professionals: Alberto, who ran a small retail organisation in the sector, and Alessia, was a researcher with a great deal of experience in European project work. Alberto took the role of Project Director, whilst the other became Project Manager. Whilst both were important in setting up the vision and selecting potential partners, Alessia wrote most of the project proposal. The team was relatively small (around 13 permanent members with some attrition after one team member left her job). Whilst the two Italian sectoral experts had collaborated previously, the partnership was new.

For EU projects, geographical spread of partners is an important factor for proposal success and Team A had a diverse range of nationalities. There were six partner organisations in total, three partners from Northern Europe (Finland, Belgium, and UK) and three from Southern Europe (Spain and two Italian partners). A wide range of skills was needed for the project to be successful: the proposal had specified tasks that would require research skills, the ability develop and pilot educational modules, sectoral expertise to understand how to tailor modules, technological expertise to develop the online platform, academic skills to develop the module frameworks, pre-existing networks through which to deliver the project, and evaluation skills to support and assess

---

[9] This sector is anonymised to protect the identities of the participants in the research.

the project. The six consortium partners were selected to fulfil these roles. Given that each partner was from a different country, each had a different role, area of expertise and country of origin (besides the Italian organisations who were both from the same retail sector and country).

Six coordination meetings occurred for the partnership to meet in person, with each partner organising a meeting. Between these face-to-face meetings, online teleconferences were used to maintain contact and manage the project on an ongoing basis. A bespoke online educational platform was developed for the project which could host group meetings and had additional functionality such as whiteboards and screensharing. Once this platform was sufficiently developed, it was also used to host team teleconferences, with group Skype calls acting as a fallback option when technical problems were encountered. These meetings sat alongside a group email system using Outlook (a mailing list that had the email addresses of every partner) and Dropbox (for managing documents to be shared across the team).

The project was successful in achieving its contractual aims. However, the initial to mid-stages of the project were particularly difficult and hampered by delays and conflicts, often caused by partners producing work which required several revisions. The tasks were usually accomplished by partners in isolation. Collaboration on core work was rare after the initial stages: the educational delivery was dispersed by partner country so that each partner was responsible for one country only. Several partners were highly committed to the project, particularly retail sector practitioners who envisioned the project could help them achieve core business areas. The sectoral partners and technical partner have maintained the training platform and continue to use it to deliver training for their network.

My own role in the project was small but significant, mainly working as a team member on the evaluation of the project. As part of the team responsible for evaluation, I was involved in assessing the challenges faced by the project on an ongoing basis (including interviews with partners) and the outcomes it achieved. I was also involved in delivering online training in the UK and marketing of the project.

Key participants

As shown in Chapter 4, five members of Team A were interviewed between March 2018 and July 2019. These interviewees developed and delivered the training, and were a mix of sectoral, evaluation, and educational experts, with the technical partner, academic and educational partners not responding to requests for interviews. Besides the five interviewees, three other team members are highlighted in Table 10 below due to their significance in the critical incidents.

Assigned name	Interviewed	Background	Responsibilities within team	Location	Language proficiencies (as assessed by interviewees)	Incidents involved in
Anna	Yes	Retail sector expert, CEO of Association X	Leader of research mapping work package, pilot delivery in Italy	Italy	Native Italian, average English	Shared definitions (A(i)) Research report (A(iii)) Purpose of project (A(iv))
Alberto	Yes	Retail sector expert, CEO of sectoral organisation	Project Director, leader of piloting work package, pilot delivery in Italy	Italy	Native Italian, average English	Shared definitions (A(i)) Research report (A(iii)) Purpose of project (A(iv))
Ada	Yes	Retail sector expert, employee of Association X	Team member for Association X, lead on Research Report, pilot delivery in Italy	Italy	Native Italian, average English	Research report (A(iii))
Alessandra	Yes	Researcher, employee of research organisation	Leader of formative evaluation, emerged as leader alongside Project Manager	UK	Native Italian, native English	Marketing report (A(ii)) Purpose of project (A(iv))
Adela	Yes	Researcher, employee of research organisation	Leader of evaluation work package and quality assurance	UK	Native Spanish, average English	Research report (A(iii)) Purpose of project (A(iv))
Alessia	No	Researcher, contracted to Alberto's organisation	Project Manager, contractual delivery of project, proposal writer	Italy	Native Italian, very good English	Shared definitions (A(i)) Marketing report (A(ii))

						Research report (A(iii)) Purpose of project (A(iv))
Andrea	No	Employee of a national school network	Leader of marketing work package, led Marketing Report, pilot delivery in Spain	Spain	Native Spanish, poor English	Marketing report (A(ii))
David Drabble	No	Researcher, employee of research organisation	Team member of research organisation, evaluation, pilot delivery in UK	UK	Native English	Research report (A(iii))

Table 10 Overview of key participants in Team A

As shown in the table, the overall Project Manager was responsible for the technical delivery of the project. Leadership was further dispersed with each partner leading a work package.

Four significant incidents of hidden discord were identified by the interviewees of which three were selected for in depth analysis. As shown in Appendix 5, interviewees were asked to discuss a ‘misunderstanding’ which arose in this team (and were told this in the recruitment email for preparation); often these incidents would mention an incident earlier in the interview, other times I would prompt interviewees with suggestions. Some incidents were more salient and visible to interviewees than others, and so each interviewee chose to discuss different incidents. These were incident A(ii) ‘Marketing report’, incident A(iii) ‘Research report’, and incident A(iv): ‘Purpose of project’. The remainder of this section describes and analyses these four critical incidents. Each incident has four sections which are summarised in a table at the beginning of each section. The first section is an **overview** of the incident, which categorises the incident to the typology introduced above, detailing the type of incident, the topic and resolution status, as well as any secondary incidents that were nested within the primary critical incident. Second, the **context** of the incident. This section outlines the underlying conditions that formed the context for the incident, such as team composition and communication behaviours. Third, the **stages** of the incident which describes the incident from the original communication to the realisation of discord, to the aftermath. This is a highly descriptive chronological account of the incident using the multiple perspectives and documents available to understand the pathway of the incident. Finally, a section on the **significance** of the incident for the team, for instance, how it affected the tasks, cohesion, and communication patterns.

This structure of presentation demonstrates the pathways and contingencies of incidents of hidden discord. In doing so, the reader is given a fuller view of the dynamics between the objects of this study: the conditions, effects, and management of different types of hidden discord are displayed in detail, as well as how discord is actively framed by participants. Whilst the preceding chapter gave the data structure, presenting answers to the research questions in aggregate form, this chapter focuses on the process and dynamics of hidden discord in globally dispersed teams.

Incident A(ii) 'Marketing report'

Category	Sub-categories	Illustrative quote (where available)
Type of discord	Damaging misunderstanding over a task	
Context of incident	Underspecified task	"[S]*ometimes in European projects, you don't have a clear proposal…. It requires people to work together well and to be on the same page*." (Alessandra)
	Lack of dialogue prior to face-to-face meeting	People didn't "*respond accurately by email*" (Alessandra)
	Weak ESL skills in key participant	"*Her English was terrible*" (Alberto)
Stages of incident	1. Proposal with little task description	
	2. Misreading proposal	
	3. Email miscommunication	"*It will be useful to have a marketing plan, describing which is the project marketing strategy and milestones*" (PM email) "*The plan is a good starting point for the [Team A] marketing*" (PM email)
	4. Production of report	
	5. Angry realisation of misunderstanding at face-to-face meeting	"*We spent hours saying, "no it's not like this, it's not like this" and shouting at each other*" (Anna)

	6. Leadership emergence and sensemaking	"*we don't want this environment which is very impolite*" (Anna) I had "*to process consult*" (Alessandra)
	7. Revised report	
Impact of incident	Lost time	
	Realisation of lack of shared understanding	"*Nobody had really understood what they were meant to be doing*" (Alessandra)
	Leadership and meeting processes shift	
	Assignment of blame, distrust of Andrea and Andrea disengages from interactions	"*[Andrea was] probably very clever because… via email everything was fine, was it*?" (Alessandra).
	Undermining marketing activities	"*However, the marketing activities could have been better harmonised among the partners*" (Final client review report). "*Marketing need to improve and partner have to contribute with news from activities carried out*" (Meeting minutes)
	Precedent of strong emotional reactions	"*Very powerful emotions in that group which was face-to-face and continued online*" (Alessandra).

Table 11 Overview of incident A(ii)

Overview of incident

This incident was a misunderstanding over a task which was partially resolved but caused damage to team relationships. This incident was accompanied by a disagreement about norms of behaviour within the team which was resolved. Whilst this case became a major event for the project, neither of the two main participants in the misunderstanding (Andrea and Alessia) were willing to be interviewed.

The account of other team members and documentary evidence show that this incident was regarding a document written by Andrea, the partner who was responsible for marketing in the project. The proposal stated this document should outline the project's marketing strategy yet the first draft only described the marketing activities. Whilst this initial draft document was largely accepted by email, during a face-to-face meeting in Stockholm, Alessia became furious that the

partner had misunderstood the task. This show of emotion was critiqued by the group. The leadership team was supplemented with a new team member to ensure that the meetings stayed on task and on time. Following the meeting, over the subsequent months the report was finalised.

Context of misunderstanding

Underspecified proposal

In the project proposal, descriptions of the documents that needed to be delivered for the project generally had little detail about the structure, content, and purpose of the documents, in part as the project was a grant which allows some leeway for changes, adaptations to circumstances and realisation through collaboration. The proposal was written mostly by Alessia. This meant that she was the main resource for any team member who wished for further explanations about what was written in the proposal. The limited details in the proposal meant that the onus was on both Alessia and the wider team to agree what these documents should look like in detail. This situation, where the group must work together to make sense of a proposal in order to implement it, is not unusual in this type of project:

> "*sometimes in European projects, you don't have a clear proposal but you still have to craft what it is that you want, what then you need to do. And that's where the crafting together becomes the difficult part…. I think there's a lot of leeway in European proposals to create something of the work. But that requires quite strong leadership… it requires people to work together well and to be on the same page*" (Alessandra).

The lack of specifics in the proposal ensured that the team, and particularly each document leader and the project leadership, would need to collaborate closely to decide what was needed for each document. Yet for the Marketing Report co-design with Alessia was mostly unrealised, with the task mostly delegated to the marketing partner and Alessia only providing oversight on task delivery.

Lack of dialogue prior to Stockholm meeting

The first written documents for the project were discussed in the first face-to-face meeting in Madrid, shortly after the contract had been signed. Between this first meeting and the second meeting in Stockholm (August 2014) there was intermittent communication between partners, with telephone conferences arranged on an *ad hoc* basis. An email distribution list to all team members was generally used for all communications in the team, so that each project email would be sent to 14 email addresses. This meant that emails were generally public and 'front stage' as all members could see responses. A project Dropbox had been set up but was little used.

Prior to the second meeting in Stockholm, several partners tried to use email to get feedback on their documents and then "*expressed some frustration with the inability to get answers to the*

questions by any other means" (Alessandra). Without regular calls, email was relied upon to a greater extent and gave little recourse to other communication methods. This ensured that "*people just went off and did something they just weren't comfortable with*" because of "*the inability… to respond accurately by email"* (Alessandra).

Language skills

Andrea, the subject of the misunderstanding, was acknowledged by several interviewees to have language difficulties. Her lower comprehension appeared to be related to her language skills rather than lack of competence in general. According to the Project Director, she had the lowest level of English proficiency in the team, even commenting "*her English was terrible*" (Alberto). If true, this may have affected her quality of communication and comprehension of instructions within the team. As shown below, in some emails it was clear she did not understand some subtleties in instructions, though with some repetition she came to an understanding.

Stages of misunderstanding

Communication that led to misunderstanding

The document which became the object of this misunderstanding was the project's Marketing and Communication Plan and was allocated to Andrea's organisation. The outline of this Plan was very short in the proposal: in full, the description read "*The Plan analyses the stakeholders to be addressed and builds a strategy based on this. The plan will contain timing, segmentation, tools, and reporting methods for all project public activities. It will be produced in full cooperation by the consortium*" (Project A proposal). Therefore, the document was expected to cover both the marketing strategy and outline the marketing activities.

The Marketing Plan appears to have been discussed in several conference calls (minutes for these calls do not exist). The first email discussion about the status of this plan was on the 08-07-2014, a month before the Stockholm meeting, when Alessia emailed Andrea. As had become the norm during the project, the email was sent to Andrea using the team email list, with the following query:

> "*Ciao [Andrea]! What's up with the marketing plan and tools? Would it be possible to update it accordingly to what we discussed during the previous calls and start translating it into actions?*" (extract of email from Alessia to all team members 08-07-2014).

This email was not responded to by Andrea leading to a shorter email two days later, again from Alessia to Andrea using the email list:

> "*Hi [Andrea]! Can we have an update on how you are progressing on the marketing plan? And how are you expecting the partners to contribute? It becomes now an urgent question*!" (full email from Alessia to all team members 10-07-2014).

Andrea replied to these emails five days later, sending an email to all partners in preparation for the Stockholm meeting in mid-August. This email outlined their intentions and proposed 'tools' for marketing, including a leaflet, a web banner, and a PowerPoint about the project. There was no mention of the Marketing Plan. This was responded to by Alessia who offered several comments including that design of tools was not their responsibility (it would be subcontracted to a designer) and that "*It will be useful to have a marketing plan, describing which is the project marketing strategy and milestones*" (extract of email from Project Manager to all team members 15-07-2014). She suggested Andrea to first have a "*direct chat*" with three named partners to ensure the plan fits the retail sector. Andrea responded to this email the same day thanking Alessia for her comments and stated she would contact the three partners.

At this point, an email exchange occurred on the specific marketing tools, such as leaflets. Andrea wrote to Alessia in apparent confusion:

> "*Why the leaflet is your [Alessia's] task? I am a bit concern but as i can read on the application leaflet is part of the [Marketing Report]. Alessia, I would like to know my specific task and no to waste more time on things that later on is for nothing*" (extract of email from Andrea to all team members 16-07-2014).

In this email Andrea also replied to Alessia's previous email with comments in blue text below Alessia's text to record her response to each point. This email was replied to by Alessia on 21-07-2014, again to the whole team, who wrote below the original email, sentence by sentence. This response would clarify that the text for the marketing materials would be Andrea's responsibility but the design would not be. This email was confusing to follow, for instance:

> "[Andrea's organization] is in charge of developing the texts (witch text do you mean? Flyer text, web site text, newsletters…………)
>
> Exactly! The text for all the marketing tools" (extract of email from Project Manager to all team members 21-07-2014).

This email appears to have finally resolved the earlier misunderstanding (that Andrea's organisation would design the leaflets and other tools).

However, this complicated email exchange appears to have distracted both Andrea and Alessia from further discussion on the Marketing Plan, which was not mentioned after 15-07-2014. Alessia did not outline in more detail what was expected to be within scope for the Marketing Plan (besides writing this plan "*is the project marketing strategy and milestones*"), only that she expected it soon. Likewise, Andrea did not show lack of understanding on this task. There was a shared assumption that Andrea understood the task sufficiently to present the document at the meeting in Stockholm.

By the following week, on 22-07-2014 Andrea sent a Draft Marketing Plan to all partners by email and Dropbox. This was a comprehensive document of 18 pages. The stated purpose of the document was, however, focused on the activities of the project rather than the strategy. The document described the "*relevant activities which will be undertaken to realise [Project A's] goals*" (Draft Marketing Plan).

Andrea asked for feedback from the whole team on the Draft Marketing Plan before 27-07-2014. She only received one response, from Alessia on the following day. This response did not mention any issue with the focus on activities and the lack of details on the marketing strategy:

> "*The plan is a good starting point for the [Project A] marketing indeed and it has a set of coherent tools for its implementation and relevant timing. In order to make it operational we do need to have a list of targets that may be interested in our activities*" (email from Project Manager to all team members 23-07-2014).

This was the final email communication before the face-to-face meeting two weeks later.

Realisation of misunderstanding

During the meeting in Stockholm, Andrea was scheduled to lead on two sections: a presentation of the Marketing Plan and a discussion of how to ensure the marketing was successful in the project. The meeting minutes did not mark the discussion of the Marketing Plan besides noting that "*The plan has been introduced*" (Stockholm meeting minutes). This contrasts with previous sections of the minutes which were written in paragraphs at some length; the shortness of the description is striking.

According to participants in the meeting, the presentation of the Marketing Plan led to a long and emotional argument between Andrea and Alessia about the content of the Plan. Most participants either did not recall that the Marketing Plan had been shared with the team three weeks prior to the meeting or had not read Andrea's email and document before the meeting (perhaps due to the large volume of emails between partners). Perhaps not recalling or knowing that this document had been shared three weeks before the meeting, Alessandra suggested that *"in the face-to-face meeting, [Andrea] produced something that was totally irrelevant"* (Alessandra). Alessia, apparently also not admitting or recalling that she had already largely approved of the document, became angry at the presentation *"then actually ended up in pretty much a shouting match. The [Project Manager, Alessia] was shouting at [Andrea], much to the dismay of pretty much everyone. It was quite violent"* (Alessandra).

The argument concerned the content of the Marketing Plan and the lack of text on the project's marketing strategy. According to Anna, Alessia was "*saying 'no it's not like this, first you have to*

write a marketing and communication plan'. [In reply Andrea was saying] 'So I shouldn't write this email [to marketing recipients]?' But the problem [was she was being asked to do] something completely different" (Anna). Andrea appears to have taken a while to recognise that the document was incomplete and recognise she had misunderstood, which was partly due to her English level: this misunderstanding "*was not just about language, the language did not help*" (Anna).

According to Anna, Alessia was largely at fault for how the interaction unfolded: "the person who was in charge of coordinating the project was not facilitating. And maybe she was more interested in highlight the differences rather than solve the problems" (Anna). Because of Alessia's attitude "we wasted a lot of time and effort. Instead of explaining to them, ok, if you want to write a communication and marketing plan you have to define who are your stakeholders, who are your targets…. Instead of explaining this which would take maybe half an hour, we spent hours saying, "no it's not like this, it's not like this" and shouting at each other" (Anna).

The session began at 14:40 but continued for "*many hours*", reportedly much longer than planned. By the end of the day, the participants felt "*Very tired and trapped*" (Anna). The session on marketing was meant to be followed by three other sessions, with the meeting ending at 16:30 for the day, and a Project dinner at 20:00. Instead, the Marketing session went on for several hours with much arguing and the other sessions were dropped or only briefly discussed.

Aftermath of realisation

The meeting minutes, written by Alessia, were notably sparse following the Marketing session. Whilst the first day had four pages of notes, the second had only two pages. On the third day, which also ran from 9:30 to 4:30, there are only two lines written in the meeting minutes for a total of eight sessions. This implies a large degree of distraction from the tasks of the meeting, as well as disengagement or exhaustion by either the minute taker or the group. Because of this distraction several important topics were not discussed. The team decided during the third day to set up a further, unplanned meeting in Brussels nearly four months later. The meeting notes recorded that "*A further discussion will be made in Brussels during the 3rd meeting*" (Meeting minutes for Stockholm meeting).

According to interviewees, following the conflict, there was a lot of discussion between partners, not about the report, but about the aggression of Alessia: "*I remember after that meeting, we spoke a lot with the others…. We thought we should ensure that at least we had a decent environment, in that case w' don't want this environment which is very impolite*" (Anna). These conversations happened over dinner that evening and during the meeting the following day, which perhaps explains the lack of notes in the meeting minutes. These dialogues were important for sensemaking

and developing a common understanding of what had happened to the marketing partner: "*you need to of course share your thoughts and your feelings about this with the other participants. In this case you can realise that you misunderstood something or sometimes you reinforce your view"* (Anna). Anna stated that these discussions led her to realise that this dynamic of impoliteness had begun during the first meeting and so the incident was a continuation of behaviours rather than something unique and therefore had to be addressed systematically.

Finding a solution though encouraging more 'acceptable' behaviour was possible in part due to the presence of Alessandra who was at the Stockholm meeting *"to process consult"* (Alessandra). On the following day of the meeting, Alessandra led a session which reflected on team processes and dynamics. The discussion led to strong conclusions on the norms of acceptable behaviour in the group: "*we said that we should pay more attention to the timing of the meeting, we should avoid this kind of situation which one person is attacked by another person and to stop, even if it means we're not talking anymore in this issue ok, that's it, we should stop it. And not accept this kind of behaviour*" (Anna). Following the end of the Stockholm meeting, the meeting chairing system was adapted. Previously, Alessia chaired meetings alone; following the meeting Alessia would be supported by Alessandra to manage time and the topics discussed in the meeting.

Whilst Alessia's behaviour was viewed as a flaw in her facilitation style, it also appeared in an email (sent on 18-09-2014) to the whole team that Alessia had health worries at that time and had been unable for the past month to complete the Stockholm meeting minutes or review the revised Marketing Strategy. This explanation may have helped soften some of the impact of the argument between her and Andrea: in a group email, Andrea wrote in reply "*Sorry to hear that. I hope you recover soon. I send you a big hug*" (email 18-09-2014).

Communication in the team began to change in some ways following this incident. As mentioned, Alessia organised an 'extraordinary' meeting in Brussels for several partners in December. This meeting was unplanned and so used up some of the project budget for other tasks. It was designed as a one-day meeting to discuss some of the topics that were curtailed following the conflict on the Marketing Plan: "*the meeting in Brussels was scheduled in order to pick up on some agenda items that were dropped due to in-depth discussions on other items, which over-ran*" (Second evaluation report). There was a further objective for this meeting: according to Alessia

> "*the key objective of the meeting, [is to agree] the rules of the meeting, in order to avoid some of the criticalities [problems] faced during the previous meeting, such as not respecting the time allotted for each items and the possibility for each partner to share her/his view on the specific item. Thanks to the contribution of [Alessandra and Adela's organisation] the*

> *partnership was able to run a smoother and more participatory meeting*" (Meeting minutes Brussels meeting).

This objective of setting agreed rules for future meetings publicly acknowledged that the handling of the incident had been poor, would not be acceptable in the future and that steps had been taken to ensure this through Alessandra's contributions.

However, it appears that there were still issues with how these meetings were run. One session in the Brussels meeting was designed to reflect on the project and this session was placed at the end of the meeting agenda, despite this being one of the key objectives of the meeting. In a repeat of the Stockholm meeting, the other sessions in Brussels also overran meaning that

> "*The reflective session could not be implemented, due to the lack of time and the fact that some partners had to leave before 18:00. However, [Alessandra and Adela's organisation] will send a questionnaire for the assessment of the meeting that will underline the improvements and the achievements implemented since the last one, especially in terms of meeting organisation*" (Meeting minutes Brussels meeting).

According to the results of the survey of team members, mentioned in the Brussels meeting minutes, communication and commitment had improved by the next meeting in March 2015. In response to the evaluation survey, the following 'strengths' were noted by the team members:

> "*Partners' ability to listen to each other, which creates an environment conducive to joint problem-solving"*
>
> *"Openly sharing views and doubts, which is an important feature in being able to move forward with more clarity*." (Survey response by partners on the strengths of the partnership)

Another initiative following the incident was that Alessia instituted a monthly telephone conference: "*As general practice we set up a monthly Skype call to be held the first Wednesday of the month from 11h CET to 12hCET. All the partners are encouraged to participate, whenever this is impossible, than they will be updated directly by the coordinator - and the minutes*" (email 08-10-2014).

In terms of the Marketing Plan document, which was the object of the misunderstanding, partner input continued to be remarkably slow. Following revisions by Andrea and her colleagues, a second draft of the document was sent for partner review in October 2014 (six weeks after the meeting in Stockholm) to two team members as part of the quality assurance process. According to the official documentation, quality assurance was meant to take two weeks. However, the document was not fully reviewed by partners until three months later in January 2015, and this version was not finalised as it still had gaps where partners had to provide information. Before the client review meeting, on 28-03-2015 Andrea emailed all partners to fill in the gaps regarding their organisation's

contribution to marketing. With the incentive of the upcoming external facing meeting, the report was then finally completed, nearly nine months after the first version was circulated.

Marketing in the project continued to face significant difficulties. In the fourth meeting in London Andrea presented to the team by Skype to say that "*Marketing need to improve and partner have to contribute with news from activities carried out*" (Meeting minutes London Meeting 11-03-2015). Andrea's colleague communicated a similar message in the following meeting in Milan: the marketing partner "*underlined the need of more cooperation among the partners especially as concerns the provision of the marketing reports, including all the supporting evidences*" (Meeting minutes Milan Meeting 09-11-2015). The lack of engagement of team members in marketing activities was never fully resolved. Andrea also reduced the number of face-to-face meetings she attended: she appeared in person at the extraordinary meeting in Brussels but did not attend any further meetings in person.

Impact on team

As covered above, the incident was taken as an opportunity to recalibrate communication and roles in the team, with more regular calls, assistance in running meetings by Alessandra and more discussion of the group's norms allowed. These actions would each benefit the team. The emergence of a sensitive leader in Alessandra, who had a particular expertise in process consulting, was a decision which helped address the communication problems in the project and establish norms of behaviour during meetings that were agreed and enforced. Adding another individual to co-chair meetings also acted as a check on Alessia's authority which had derived from her formal role as the manager of the contract and as the person who held the most knowledge about the project as the proposal writer. Indeed, her willingness to accept another leader in the project may indicate that being the lynchpin of the project, and the only partner who diligently responded to calls for feedback, was an unsustainable situation and put too much strain on one individual.

On an individual level, the negative impacts of this incident appear to have been upon Andrea whose status and trust within the partnership was eroded. By comparing the email communications, meeting minutes, documentation, and interviewee perspectives, it appears that the incident was a misunderstanding of a report, where intentions for the contents of the document were not elaborated in detail until a face-to-face meeting occurred. Given the lack of clarity given to Andrea, it is significant that some interviewees believed that Andrea may have been deceitful rather than only misunderstanding. For instance, Alessandra displayed distrust of Andrea when saying she was "*probably very clever because she'd actually, via email everything was fine wasn't it? So, I suppose it was very easy to give that a context by which things were going fine*" (Alessandra). For Anna, Andrea

did misunderstand the instructions for the Marketing Plan, though this was due to Andrea's poor misinterpretation rather than vague instructions: "*with the Spanish partner they were supposed to write Marketing and Communication Plan something like this, and actually they were writing something, some activities…. They were writing just the activities, 'ok I put this on the website, I will send this email to teachers'…*" (Anna). Whilst Anna and Alessandra disagreed on whether the issue was a misunderstanding or a clever distraction, both blamed Andrea for her misunderstanding in the first place rather than others in the partnership such as Alessia not adding further guidelines.

The stage of the project was also relevant to this misunderstanding, coming only seven months after the project had begun. This was a period when the proposal document was still being interpreted and contested by team members. There was significant onus on Alessia as proposal writer to clarify any misunderstandings yet in this case she was allowed by the team to publicly blame Andrea. The lack of further elaboration of the tasks from the proposal meant that the tasks were only vaguely understood and had not been fully discussed: *"I think that what was coming out in the meeting at that time, was essentially how nobody had really understood what they were meant to be doing*" (Alessandra). This meant the meeting was in some ways a moment of clarification for the project team as they realised there were still several outstanding questions about how the project would be implemented. The lateness of this realisation meant that during the meeting some of these activities and documents had already had significant time invested in them.

Whilst the incident was an aspect of wider project dynamics, much of the blame fell upon Andrea as the team member who was slowest to comprehend instructions. This was shown prior to the Stockholm meeting when Andrea had emailed defending herself strongly by asking for clarification of her responsibilities, only later to be publicly shown to have misunderstood her role in developing marketing tools. Subsequently, during the realisation of the misunderstanding, Alessia was overly aggressive in a way which may have amounted to a public shaming. This likely left Andrea in a weakened position in the team, and the experience of being blamed for these misunderstandings may have led her to disengage from the project. Publicly 'losing' two arguments with Alessia and shown to have misunderstood, meant Andrea endured a degree of humiliation which may have reduced her standing in the group (her lack of participation in face-to-face meetings indicates a degree of avoidance of further incidents).

Whilst she was deemed a 'weak' member of the team, the results of the client review suggest that the Marketing Plan document was ultimately high quality. Instead, the reviewers deemed the inputs from other partners on marketing insufficient. There was evidence from emails and other documents that Andrea and her colleagues continued to request marketing materials from the other

partners and these requests appear to have often been ignored: in the two official European Commission reviews 'marketing' was the lowest ranked category (6 out of ten for both reports):

> "*The marketing plan is a document of good quality which outlines the main marketing channels that are widely used in such projects and are appropriate. Partners report some marketing activities appropriately but provide only evidences for little of them (for example marketing reports of P[Partner]1, P2, P3 lack in evidences)*" (Midterm client review report).
>
> "*…good marketing materials were generated (see… Final Marketing Report)…. However, the marketing activities could have been better harmonised among the partners*" (Final client review report).

The lack of marketing contributions from partners together with the reduced trust and status of Andrea may indicate that her power within the group was reduced by the misunderstanding (which was blamed on Andrea by all interviewees even though they disapproved of Alessia's response). The incident may have undermined the marketing across the partnership, which was a core component to attracting participants to the training programme within the three-year project.

This incident was also influential in terms of shaping the group's 'social order', that is the patterns of interaction and norms of behaviour. The event was highly emotive for the participants as shown by the clarity of interviewees recollections four or five years later. Interviewees claimed it was memorable "*because I was quite shocked actually by the some of the-- some of the reactions were, on the face of it, quite strong and quite powerful*" (Alessandra). This event led to the recognition and normality of the presence of "*very powerful emotions in that group which was face to face and continued online*" (Alessandra). The recognition of the potential for "*impoliteness*" (Anna) in the team led to a number of initiatives to try to contain the emotions of the group and improve the stultified communication, such as the new role for Alessandra, the monthly Skype calls, and an extraordinary meeting three months after the Stockholm meeting. However, whilst these initiatives were somewhat successful, the fact that this highly emotive misunderstanding did occur meant that the incident made a great and permanent change in the potential range of behaviours in the team, cumulating in incident A(iv) which is described later. That is, whilst the behaviour of Alessia was criticized, the behaviour itself set a precedent which could be followed.

Incident A(iii) 'Research report'

Category	Sub-categories	Illustrative quote (where available)
Type of discord	Damaging misunderstanding over a task	
Context of incident	Underspecified task	
	Poor skills match for task	*"They had been allocated a task for which they had no competence"* (Alessandra)
	New staff in charge of task who lacked confidence in ESL skills	*"[A]t the beginning for me, it was really difficult to work"* (Ada) *"I'm always a little bit ashamed in international situation… because of my English"* (Ada)
	Concurrent with incident A(ii)	
Stages of incident	1. Proposal with little task description	
	2. Misreading proposal	*"I'm not sure that they read the proposal or understood what was written in the proposal before winning it."* (Adela)
	3. Lack of response to clarifying questions	Ada and Anna were *"asking questions about what they were meant to be doing. I'm not sure they were receiving responses."* (Alessandra)
	4. Production of report	
	5. Distraction during face-to-face meeting with incident A(ii)	*"The 1st draft of the document is in the dropbox since the beginning of August. We do need a feedback on the index!!!!"* (Stockholm meeting minutes).
	6. Quality assurance by email led to realisation of misunderstanding and call to rewrite report	
	7. Slow acceptance of misunderstanding	*"we realised this misunderstanding when they already did all the work, a few months passed, and so it was really annoying to try and solve that thing."* (Alberto).

		"They also felt they were on the right side because 'we know the things that we're talking about'" (Alberto)
	8. Report slowly rewritten	
Impact of incident	Lost much time and still inferior product	"[*The report] was something acceptable at the end but not really good*" (Alberto)
	Discomfort and shame	After feeling ashamed, "*that then begins this cloud, that's how you begin to interpret everything*" (Alessandra)
	Project delay	"*I´ve done what I could. Not particularly happy (to say the least), but we cannot put much more time*" (Email from Adela)
	Precedent of lateness	

Table 12 Overview of incident A(iii)

Overview of incident

Incident A(iii) was also a damaging misunderstanding over a task which was partially resolved. Like the misunderstanding with the Marketing Plan, this misunderstanding began with the responsible partner's interpretation of the task description in the proposal.

The task was a research report. Rather than being the responsibility of the evaluation or academic partner, the responsible partner was Association X, one of the retail sector experts. During the writing phase, the partner received little feedback or guidance when this was requested. The writers of the report only realised the report was inappropriate for the task when receiving critical feedback by email on the draft version of the report. The report was then redrafted by a series of partners from the consortium over a 6-month period leading to delays in the project.

Context of misunderstanding

Skills of partner

The Research Report task had been assigned to Association X, an industry association of organisations in Project A's retail sector. Association X had a great deal of knowledge and contacts about the sector compared to other partners in the consortium. The Research Report was designed to provide a foundation of knowledge to the partners and external audiences about the sector, providing an overview of issues such as the history of the sector, the gap of bespoke education for staff in the sector and the training needs of sectoral staff. The Project Director, as a previous collaborator with Association X, believed their deep knowledge of the sector made them suitable to lead on this research task and so assigned it to them.

This perspective on the suitability of their organisation to the task was not shared within Association X, which was managed by Anna. According to Alessandra, Anna had said to her that she was uncomfortable with having to take on Project A in the first place (Alessandra), in part due to the tasks allocated to their organisation: "*my understanding of the situation was that they had been allocated a task for which they had no competence…. The difficulty there was not only that they were using their resources for something they weren't able to do, they also didn't know why they'd been allocated that task*" (Alessandra).

Newly hired staff

Ada was recruited by Association X several months after Project A began in part to lead writing the Research Report. Ada had to immediately lead on this task yet took some time to get acquainted with the new role having received little guidance:

> "*So it's quite complicated because… at the beginning where you have to understand your job, your role in the association…. So at the beginning for me, it was really difficult to work, to do what [Anna] was asking me to do, because maybe we managed to talk one hour per week. Otherwise, she was really too busy and so I couldn't get in contact with her. So this was really difficult*" (Ada).

It was not possible for Ada to focus on Project A and she had other commitments, meaning she could not dedicate enough time to the task: "*we don't have a full-time contract, but we have to work really, really a lot. So we think that we couldn't-- how can I say? We couldn't spend enough time on the activities as we… needed to do…. So I really couldn't focus on only [Project A] activities*" (Ada).

Ada agreed with Alessandra's perspective on their lack of experience of research tasks: "I really didn't get what I need to do and what was the difference between academic research and [the qualitative interviews we did for the report]" (Ada). Whilst Ada struggled to grapple with the tasks, her difficulties were amplified by the lack of sympathy from other team members:

> "*when we started working in [Project A], for instance, so I felt in a lower position, I don't know how to say it, concerning the rest of the group. And when I started and we did something wrong, I mean, it wasn't exactly what we needed to do, I felt that some person in the team, okay, were really strongly judging me and not trying to explain me better. Like [I] was trying to trick them. So I was in the opposite position than my previous [work] experience*" (Ada).

Whilst Ada felt uncomfortable due to her lack of experience in research, she also found navigating Team A's hierarchies difficult especially given that several of the team members were highly experienced and senior within their own organisations. To Ada as a junior staff member this felt difficult to navigate.

English proficiency

Both Anna and Ada do not speak fully accurate English which had an impact in two ways on the incident. First, the lower linguistic competence of these key participants in the misunderstandings meant that it was difficult to understand documents and communications in English and challenging to clearly communicate a message to other partners. Anna was particularly disparaging about her own English proficiency and found it frustrating to communicate in English in a global team context: "*I never studied English at school so I learned by doing, I still play by ear when I speak English. It's a big frustration because you have to do the work of an adult but with the linguistic competence of a child*" (Anna). Their roles in the project – Anna leading the research work package and Alessandra's as the main report writer – were both hampered by their language skills (and their self-criticism on their language skills) in communicating, coordinating, and producing a public report.

The second impact of perceived low English competence was on their sense of shame within a group speaking English as *lingua franca*. Both Ada and Anna mentioned their embarrassment during their interviews: For Ada "*I'm always a little bit ashamed in international situation… because of my English*" (Ada). Similarly, Anna stated that in these international groups she feels "*a little judged if you're not speaking proper English so you are a little intimidated at the beginning hmm? Stepping into the meeting to say something*" (Anna). As work package and report leaders, the sense of embarrassment and reticence to speak at the beginning of the project, coupled with the status attached to speaking good English in the group (assumed by both Anna and Ada), meant that any lack of understanding would be a sensitive issue for both Anna and Ada.

Concurrent with Marketing Plan Issue

This misunderstanding was roughly concurrent with the Marketing Plan misunderstanding. Whilst the misunderstanding with Andrea was realised in August 2014, the Research Report misunderstanding was realised in September 2014. The staging of these misunderstandings meant that many of the same communication behaviours that led to the misunderstanding with the Marketing Report were also present with the Research Report. In addition, the difficult emotional exchanges in the Stockholm meeting were still affecting the partnership. The recovery actions taken (the extraordinary meeting, regular Skype meetings and an expanded leadership role for Alessandra) were not yet in place by the time this misunderstanding was realised meaning that the incident occurred at a period of flux and uncertainty for the team.

Stages of hidden disagreement

Communication that led to misunderstanding

As with the Marketing Report incident, the initial communication that was misunderstood was the proposal outlining the task. The proposal stated that Association X (where Anna and Ada worked) was the "*Leader of the work package and main producer of the report*" and had 33 days allocated to complete the report and bring together contributions from across the partnership (who had 97 days between five partners). According to the proposal, the report would be public and would include "*SWOT analysis*", "*desk research and the empirical survey*", and would "*report on key stakeholders*" through qualitative interviews (Project A proposal). In summary, it was a mixed methods research report underpinned by a literature report and analysis of the current training landscape for the sector.

As above, this task was unsuited to the Association X's skillsets to the extent that Adela was unsure if the responsible partner had even read the proposal before joining the team: "*I'm not sure that they read the proposal or understood what was written in the proposal before winning it. I mean, because if they have read it, they would have known that they couldn't deliver parts of it*" (Adela). Anna was aware that additional capacity at Association X would be needed to complete the task and so hired Ada following the first face to face meeting. After being introduced to the team by Anna in a group email, Ada then spent several months coordinating inputs for the report from other partners whilst continuing to seek further clarification on what they were supposed to do for the task: they were "*asking questions about what they were meant to be doing. I'm not sure they were receiving responses."* (Alessandra).

The blockages in communication appear to have been in two relationships: between Anna and Ada, and between Alessia and Anna. Within Association X, Ada was finding it difficult to interpret the task from her communications with her manager, partly as she was working remotely on the other side of Italy from the Association's offices, which was assumed to lead to communication difficulties:

> "*I really couldn't understand very well what I need to do for the project. And for instance, the research at the beginning, one of our activities was doing research, but I didn't understand very well since the beginning what my boss [Anna] was asking me…. And we never worked in the same room because I was near Genoa*" (Ada).

For her part, Anna was expecting more support in interpreting the task from the writer of the proposal, Alessia. This position was corroborated by Alessandra: "*even though [Anna] had raised the issue on several occasions that hadn't been resolved or negotiated better in between the meetings*" (Alessandra).

This lack of help was particularly upsetting to Anna as she shared a nationality with Alessia: "*I have to say that English was a part of the problem because [Alessia], she was Italian. We could have spoke, "How do you say…", we could speak in Italian, she could explain exactly what she wanted, but she never did, so English was just a part of the problem*" (Anna). The lack of assistance was also "*a matter of attitude*", as Alessia did not pay attention to "*the different backgrounds, to the differences in the ability to speak in English*" (Anna). Anna's lack of comprehension of the task was in the first instance due to lack of appropriate skills but this was compounded by the low quality of communication across key members of the team.

The research and report writing continued in this climate until the second partner's meeting in Stockholm. The first email communication by Association X on the contents of the Research Report was a week prior to the Stockholm meeting, on 08-08-2014. Anna sent several documents that formed part of the report, including the proposed structure (the 'index'), by email to all partners using a Dropbox link. They wrote in the email message that they would appreciate feedback on the contents of the report before the meeting. However, they received no response to these documents or to their email. Partners appeared to have not read the documents by the time the meeting took place.

The lack of engagement in these documents was shown in the Stockholm meeting minutes which demonstrated the growing exasperation of Association X with this situation: "*The 1st draft of the document is in the dropbox since the beginning of August. We [the report writers] do need a feedback on the index!!!!*" (Stockholm meeting minutes). Whilst the minutes were written by Alessia, the second person voice implies that Anna or Ada took upon themselves to add this note into the meeting minutes. The lack of collaboration up until this point in the project was also noted by other team members: "*my understanding of the situation was that upon repeated requests and questions about how to do it, they didn't receive any response and guidance. So, they were left with this thing that they didn't know how to do, weren't necessarily given support to do until it was too late*" (Alessandra).

Whilst feedback on the report itself was not given, during the meeting it was noted by Alessia and Director that the Research Report was due by 31st July 2014 and so was already late by the meeting in August 2014. The management were concerned that one of the earliest products of the project was already late. Yet their accusatory tone was cause for concern to Association X team members given they had not received any feedback on the report. This left Association X in an isolated position: "*on the day of the [Stockholm] meeting when everybody saw each other face-to-face, [Association X's lack of clarity on the task] emerged as an issue and then it turned out that it was*

quite late, [I] remember it was quite late for that output to be delivered" (Alessandra). This meant that the report writers had to defend themselves during the meeting, making it more difficult to request further help and clarification, especially as earlier requests to clarification had been ignored by Alessia (Alessandra).

Following the meeting, Ada and other team members acted with some urgency to finalise the report, despite remaining uncertain about the purpose and contents of the report.

Realisation of misunderstanding

Once the finalised document was shared and had been read by other team members, this resulted in "*a big misunderstanding over the nature of the document and how it should be. We find that this, we realised this misunderstanding when they already did all the work, a few months passed, and so it was really annoying to try and solve that thing. [It was annoying] from many many sides, for many partners involved*" (Alberto). As partners had not engaged with the report contents and structure prior to or during the Stockholm meeting, the realisation of misunderstanding occurred "*between meetings when they had delivered the report*" (Alessandra).

One of the key features of the communication on the report was that Ada and Anna did not appear to be aware that their initial draft report would require more than surface level changes. This is evident in the timelines for review of the document: comments were due three days after the report was emailed to partners, then within two weeks the report would be finalised and signed off. This timeline was immaterial, however: they received no acknowledgement or response in the next three days. On 12-09-2014, Ada sent a further email to all partners again asking for feedback before the quality assurance process would begin, and to postpone the QA process by "*1 or 2 days*" due to the lack of response. Ada also offered the option to close this opportunity for comments as the other team members may have no feedback to offer and so the QA process could begin immediately.

At this stage, I became involved in the incident for the first time. I did not attend the Stockholm meeting and was not involved in writing the report. As the team member who would be responsible for Quality Assuring the report, I was keen for the research report to be read and checked by other team members given the report should inform future work packages. Ada's email asking whether it was acceptable to receive no comments prompted several responses on the same day (12-09-2014), first by myself I stated that having no comments would be a "*bad option*". This which was supported in a reply by the Project Director who extended the deadline to reply by one week.

In the next week, many partners gave critical feedback on the report using the whole team email distribution list, meaning all the criticism was public. Feedback was given initially by Alessia (15-09),

the Project Director (15-09) and the technical partner (15-09). Most replies were direct comments on the document rather than within the email text with the exception of the technical partner who wrote in his email "*There is quite a lot of content on the document and while reading it feels a bit scattered. I cannot say much about the actual content but I would definitely revise the structure like [Alessia] has pointed out*" (Email 15-09-2014). After these emails, the team member responsible for organising Quality Assurance in the project, Adela, wrote a long email, acknowledging that the number of substantial comments meant the time to complete the report revisions would take another week, even though that would make the report late by two days further than anticipated (already over two months late). Following this email from Adela, the Project Director emailed the team to say he wrote further comments on the report (17-09) and an academic partner also added her comments (18-09), leaving the report with critical feedback from five different sources.

After this, there were no further emails to the whole group. Private emails were ongoing however: as I was expecting to quality assure the report, I emailed Ada privately to sympathise and suggest a path to complete the Report: "*Sorry for all the confusion in this quality assurance – personally I don't like it when it feels like feedback is coming from all directions! I've communicated with [Adela] and we think that it would be better if you and your colleagues made the changes to [the report] following the feedback from [Alessia], [the Project Director] and [the technical partner] first*" (Email from myself to Ada 15-09-2014). Two weeks after this, I asked Adela "*Do you know anything about what's going on – have they made the changes yet? It's all gone a bit quiet, I'm not sure what that means*" (Email from myself to Adela 01-10-2014). The next update to Adela was one month later from Alessia who revealed she was now working on the report and apologised for being late (Email from Alessia to Adela 20-10-2014).

According to interviewees it was during this period between the report being shared with team members and the above email in late October when team members at Association X realised they had misunderstood the task. According to Anna, "*they [Ada and her colleague] worked a lot of the research, a lot. But they made something that wasn't what they were supposed to do. They couldn't understand why, they couldn't understand what more they could have done. So it [was] frustrating*" (Anna). During this time the Project Director spent time trying to explain what was expected for the revision of the report but this process took a long time to resolve: "*they were keeping on saying 'oh, but we put all the information, the thing is really understandable for us'. I don't find that they could really understand the point*" (Alberto). This process suggests that the realisation of misunderstanding did not immediately lead to a full understanding of what was expected of the report: they were

aware they had misunderstood but still did not understand and so were in a position of non-understanding.

Being in this position was embarrassing for the report writers, especially as experts in the sector

> "*because they felt that the team was not happy [with them] but [the report] was their job. So that is a reason to be frustrated, but at the same time they also felt they were on the right side because 'we know the things that we're talking about and the things that are in the product that we have produced are correct and are important and are significant. They couldn't understand that there was some templates to follow, there was a methodology that should come out clearly and all this kind of things*" (Alberto).

The critical feedback ultimately led to Alessia and Project Director writing a structure for a reworked document. It was at this point that the non-understanding led to understanding: the situation became clear at "*the point where someone needed to show practically to [the report writers] what we were expecting from them. It was by using the tool: 'I will write you down a skeleton of a framework for what you are supposed to do'. Because up to that moment, it was felt to be observations, correction to the text that they were writing, rather than how it was built from the beginning*" (Alberto).

Aftermath of realisation

The repercussions of this situation were especially difficult to deal with: in contrast to the marketing report, the Project Director was personally upset by this process as it concerned close colleagues and friends, making the incident

> "*Very uncomfortable. Because it was…. Well, for me, particularly, it was uncomfortable because it was creating also conflicts, people are feeling very uncomfortable with this, and I had the responsibility of coordinating the team so that is the first reason. Second reason, because with [Association X] we were partnering not only on the project, we are collaborating for a long time, we are part of the same movement, and some of the partners working with [Association X] are also personal friends. So being in a position of having to tell them they have to redo completely the work that they already did, it wasn't easy at all!*" (Alberto).

In order to get the message that the document had to be rewritten clearly and with sensitivity, the Project Director talked with Anna and Ada by "*Telephone then email, then face-to-face*" (Alberto). This mix of media implies that the team members at Association X continued to find the task difficult to understand and required persuasion to re-engage in the task.

This period was particularly hard for Ada who had the main responsibility for the report. Ada felt diminished by the incident: the team did not trust her and felt the work was bad because Ada and her colleagues did not put effort into the report, rather than being the result of lack of understanding. As with the Marketing Report, Alessia was judged to have facilitated the incident

poorly: Ada "*felt that [Alessia]'wasn't trying to help me and to solve the situation, but she kept on saying what was wrong and trying to find the guilt and not the solution*" (Ada).

The strain of the situation became severe enough that Ada apparently considered quitting: "*I think I remember [Anna] saying that [Ada] wanted to quit because she just didn't know how to do it*" (Alessandra). This strain was in part because the responsibility for the task remained with Association X rather than being passed to a more suitable partner. Whilst the responsibility did not shift, after this period far more support and collaboration was given by the project management: "*we managed to helping them, mainly me and [Alessia], to support them to redo the work. So, we asked them, please redo it but we will help you. That wasn't our task*" (Alberto). This extra support was likely triggered by strong relationships, given Anna and Alberto were friends and that Association X, Alessia and project director were all Italian, as well as recognition that Association X did not have the competences or willingness in-house to revise the report alone.

In terms of the timing of the finalisation of the report, Alessia and Director gave an update to the quality assurance reviewers around two months after the initial round of feedback (27-11-14). This email stated substantial input was needed by Anna and Ada. Alessia then sent the report to the Quality Assurance team (Adela and I) on 11-12-2014 to begin the quality assurance process. Once started, the review process was meant to take one week to complete, with a further week to finalise the report. However, the review was still incomplete five weeks later when a new version of the report was then sent to the Quality Assurance team by Ada on 21-01-2015 (Email from Ada to Adela 21-01-2015). Whilst Ada had not communicated that she was doing further revisions, neither Adela nor I had not begun the revisions despite receiving the report five weeks ago, accentuating the tardiness related to finalising this task.

After this, the quality assurance review ran until 20-03-2015, two months later. Whilst the report had been improved, the quality assurance task involved improving sections of the report rather than only commenting. Given the scale of the task, the quality assurance was performed by two team members (Adela and I) rather than one as planned. The final email between the Quality Assurance team shows their lack of satisfaction with the report despite the changes: "*I´ve done what I could. Not particularly happy (to say the least), but we cannot put much more time on QA [quality assuring] this*" (Email from Adela to me 16-03-2015). By the time of submission to the client, the report was eight months late.

The eight-month delay was significant to the project, as it was the first public report to be sent to the client. Two months following the initial deadline, Alessia set up an impromptu meeting with the

client to explain the delay and was asked to send a formal letter "*so that she can acknowledge [the delay] and most important I will need to underline that there is no impact in terms of the objectives addressed*" (Meeting minutes with Project A client). The final client report acknowledges that there were delays to reports in the first half of the project "*they were partly compensated in the second half of the project. Most of the changes/delays occurred are documented and justified in the Final Report*" (Final client review report). In effect, this misunderstanding "*slowed down the whole thing, as usual, and made people more tired than they were supposed to be at that part of the project*" (Alberto).

Despite the revisions, the final version was not seen as a high-quality research report and was not widely used by the project: "*we didn't solve it completely, because the final product of that Work Package, if you remember, was something acceptable at the end but not really good. So, it was a little bit poor even at the end, but at least better than the original version*" (Alberto). This sense of embarrassment is also shown in that the report was not made public on the project website until prompted by the client during the first formal review of the project (Mid-term client review report).

Impact on team

Whilst the emotional impact of the Marketing Report incident was mostly upon Andrea, the Research Report incident's impact appears to have been more general affecting multiple participants, with the Project Director stating this misunderstanding was "*not healthy at all*" (Alberto). This misunderstanding made the report writers feel "*ashamed*" with even the Project Director feeling embarrassed given his personal relationship with Anna and Association X. Once the report writers were made to feel ashamed by the group, "*that then begins this cloud, that's how you begin to interpret everything*" (Alessandra). Feeling ashamed of the work may have been part of the explanation for why the report took so long to be finalised, as they had to overcome the emotional burden of being blamed for a poor report. This permeating sense of shame around the task may explain why Ada felt distrusted and misunderstood, Anna felt embarrassed and angry, Alberto embarrassed and stressed, and Adela and myself dissatisfied.

Beyond the emotional impact, the most significant impact was on the persistent flouting of ground rules on timeliness by all participants. This report was the first time the quality assurance protocol had been implemented, which stipulated a two-week time boundary for comments, formal review, and revisions before submission. In this case, the period between submission for comments and final submission was six months. In full, the deadline for the deliverable was the end of July 2014 and it was eventually submitted in March 2015 with each step being late even after the deadlines were adjusted: the initial draft was late, comments on the draft were late, the response to comments was

late, and the quality assurance was late. Whilst the struggles to write and rework the document were partially explainable by the inappropriate skills of the writers, taken together, slow responses became tacitly acceptable and made it more difficult to strictly enforce deadlines. This can be seen in that the final deadline for the whole project overran by three months, during which partners had to work without being able to claim time spent on the project.

The slow responses to calls for feedback by all parts of the team to the first deliverable likely had an impact on the team working going forward, making it clear the team found collaboration difficult and that it required a great deal of communication to even get any team response to inputs by partners. Whilst three quarters of the budget for the report was given to partners other than Association X, lack of collaboration was notable on the report. Primary inputs came from other partners in the form of expert interviews, yet the burden of writing was taken by Association X alone. Given their struggles to communicate their needs on the project, the relatively low English level may have been significant as they found it difficult to articulate their problems or persuade others to assist them. From this point, collaboration across the whole project became uncommon: as noted in the first evaluation report, bilateral communications were often fruitful and were encouraged over whole group collaboration as the partners found it difficult to work with several partners simultaneously (Internal evaluation report).

It is also worth noting that, during the Stockholm meeting, the discussion over the Research Report (where Association X were criticised for their report being late) was followed later in the afternoon by the greater conflict between Alessia and Andrea (incident A(ii)). This sequencing suggests that the misunderstanding over the research report had made the meeting somewhat conflictual before the argument over the Marketing Report. Incident A(ii) may have not been as unpleasant if it were the only instance of discord the group had to deal with. Having two difficult communication challenges to manage made it more difficult for the group to effectively deal with either and let to distraction and slow-down of the project.

Incident A(iv) 'Purpose of project'

Category	Sub-categories	Illustrative quote (where available)
Type of discord	Undiscussed disagreement over project purpose (labelled as a misunderstanding over a task)	
Context of incident	Contested visions of the project purpose	"*So, the proposal was quite different from the real [emerging] objective*" (Adela)
	Shifts in leadership roles over project duration	"*The leadership has maybe [become] distributed in different ways*" (Adela)
	Interpersonal difficulties	"*We entered in some dynamics very horrible in fact. He feel accused by me*" (Adela)
	Tension was normal part of previous face-to-face meetings	"*When we were a large group of eight people or so the communication starts to be really difficult*" (Adela)
Stages of incident	1. Undiscussed shifts in project direction towards sectoral priorities	
	2. Spontaneous change in face-to-face meeting item by emerging leader	"*The partnership decided not to work in groups, but to have a joint discussion*" (Milan meeting notes)
	3. Disagreement over a task	"*[Alberto's request was] a bit late in the day because of course he hadn't communicated that to us in any way shape or form up until then*" (Alessandra)
	4. Angry reaction to code switching	"*[Anna] and [Alberto] spoke in Italian at some point…. And then I lost my calm*" (Adela) "*[Others] didn't react. And Anna and Alberto] reacted, yeah*" (Adela)
	5. Adela leaves meeting	
	6. Sensemaking session following day	"*Because it was such an emotionally charged partnership, I think some people towards the end were quite sympathetic*" (Alessandra) Development of "*a common framework for working together in a way that ensures*

		misunderstandings are reduced" (Formative evaluation session notes)
	7. Disagreement reframed as misunderstanding	"*The discussion highlighted a misunderstanding and different assumptions among partners about the purpose and use of the questionnaires*" (Milan meeting minutes)
	8. Purpose more firmly aligned towards sectoral priorities	
	9. Task completed	
Impact of incident	Clarification of purpose	
	Release of tension prior to project ending	"*That changed a little bit the dynamic and people had started to deliver better*" (Adela).
	Contestation dynamics reaffirmed	"*[T]hese conflicts have been happening throughout the project, I think people began to operate on point of principle*" (Alessandra)
	New leadership reaffirmed after failed power struggle	
	Refinement of communication practices and norms	

Table 13 Overview of incident A(iv)

Overview of incident

This incident was the final major instance of hidden discord identified in the project. This final critical incident was the most complex case as it encapsulated several underlying issues in the project. The incident came only six months before the end of the project, when there was much anxiety about completing the project and about the future of the project after the funding period ended.

Incident A(iv) was a disagreement about the purpose of project and leadership roles but it was not overtly discussed. As the disagreement was not discussed, it was expressed through other means, in this case a highly emotive misunderstanding about a survey task during a face-to-face meeting. This misunderstanding was partially resolved during and after the meeting. Part of the resolution of the incident led to dialogue on how to deal with strong emotions during meetings. Indirectly, the incident also settled some of the questions on the direction of the project and emerging leadership.

This case was particularly hidden and personal compared to the others, as the incident was mainly instigated by Adela who was expressing her own anxieties and opinions for the vision of the project. Her perspective and behaviour was not widely understood in the project team or mentioned much in early interviews and so the main data source was Adela's interview, which was centred on a discussion of the incident as it was a topic upon which she had often reflected.

Context of hidden disagreement

Contested purpose

The primary undiscussed disagreement in the team towards the end of the project was contestation on the purpose of the project. This disagreement was mainly between Adela and Alessia on one side, and Alberto with Anna on the other. As is shown later, this contestation of the vision of the project was expressed through a conflict between Adela and Alberto. The lack of shared expectations was later agreed as one of the key issues that caused this incident: a reflective note by Alessandra stated that this incident was prompted by "*difficulties related to the extent to which partners had common or shared expectations and an understanding of each other's work*" (Formative evaluation session).

Alessia and Adela (as the Evaluation and Quality Assurance lead) both saw the primary purpose of the project as fulfilling the original terms of the contract as outlined in the proposal, to ensure that the targets and indicators were met, ensuring the client would not withhold funds for the work. Conversely, Anna and Alberto, as practitioners in the sector, were more concerned with producing tools and systems that would be useful to their work in the sector. According to Adela:

> "*I tried to make the project good enough for the European Commission [the client], and [Anna] tried to do it good enough for the purpose of her organisation. It was difficult to find our way in the middle of that…. I mean, it doesn't have any sense to make a project that it doesn't serve for anything. It doesn't make any sense to have a project that is going to be suspended by the European Commission and then you are going to have to return all their money. So, you need to compromise*." (Adela).

Over time this disagreement in purpose became increasingly clear, if not directly addressed and the positions had begun to drift further apart: "*what the [Project Manager, Alessia] explain me was quite different of what [Anna and Alberto] wanted. So, the proposal was quite different from the real [emerging] objective*" (Adela). The diversity and shift of opinions on the project's purpose was not unusual in such projects. Yet it was striking that there *"was not one unique vision of the project. So, every single person thought that it was what they want it to be. And then that was much more difficult to manage than when you have a unified vision of something. But the vision was very diversified*" (Adela). That such diversity of opinions remained at such a late stage in the project was a symptom that the vision of the project was underdiscussed.

Leadership roles

Related to the shift in purpose was the emergence of new leaders in the group. The original leaders were the Project Director (Alberto) and Alessia. Alessia was appointed *"to do the proposal writing because that is her work and then we worked together on deciding the objectives, the expected results, the activities. Then she wrote the proposal but we shared the concept*" (Alberto). The articulation of the project by Alessia was rooted in her understanding of what appealed to the client, and so her vision of the project was particularly important at the early stages of the project. During the first meeting in Madrid, the minutes record the roles of the managers of the project, which mention Alessia's role in ensuring fulfilment of the contract with the client:

> "*[Alberto] is the [Project Director] of the project, dealing with the contents development*
>
> *The Project Manager is Alessia, dealing with the respect and compliance of the project with the [the client's] requirements.*" (Madrid Meeting minutes)

Whilst Alberto did not say so during the interview, others saw him as reluctant to take on the role of Project Director in the project:

> "*He didn't want to do it. Because that's how it was set up in the wrong way…. It was more to do with [Alessia] wrote the proposal, put him down as Project [Director], they assumed she would be doing lots of work which she wasn't…. He then refused to take up his own responsibility…. Yeah and he-- [laughter] could've done without it*" (Alessandra).

Whilst the leaders of the project were sufficiently clear at the beginning of the project, Alberto was often quite passive as Project Director (Adela) and whilst Alessia was highly involved she often lacked time to manage the project closely. Consequently, there were times that the project lacked a keen sense of direction, as shown by the diversity of opinions on the purpose of the project. In addition, whilst Alessandra often helped to run meetings and acted as process consultant, she did not have a strong role in directing the project despite her emergence as a leader following incident A(ii).

After the foundations of the project had been lain (the technical platform, learning modules, and reports such as the Research Report and the Marketing Report) the project began a piloting phase. During this phase, the modules that had been developed in the first half of the project were delivered by partners in five countries, separately by the local partners. At this time, the power and leadership roles of the partners had begun to shift towards the two practitioner organisations, in part as the most successful partners were the Italian sectoral Associations where Anna, Ada and Alberto worked. Italy was the only country where sectoral practitioners were based, and these strong sectoral networks and piloting success may have lent authority to the Italian organisations.

Anna personally managed one of the most important associations in her retail sector and therefore had some authority derived from this position. Given the relative success in piloting of Project A in Italy and Anna's motivation to continue to use the project's educational tools, the answer to whether the project would be sustained following the end of the funding was likely to be in the hands of the two Italian partners. This situation was worrying for Adela who saw a danger in one country's activities being more supported and successful than others: "*It was expected to be a European project, but it was much more focussed on the Italian part. Even if we try to make it European actually it was very Italian focus and basically that's the problem from my point of view*" (Adela). Because of this situation *"the leadership has maybe distributed in different ways"* (Adela). In the shift in leadership towards Anna, the purpose of the project could become more in line with her vision: for the tools to be more geared towards sustainability of the project rather than just fulfilling the contractual aims.

Interpersonal relations

The relationship between Adela and the Project Director (Alberto) had been difficult for a while preceding the conflict between the two team members. Whilst Alberto did not mention Adela during his interview (besides mentioning it was sometimes difficult to understand her accent) in her interview Adela clearly and openly articulated her difficulties with Alberto, perhaps as we were ex-colleagues and personal friends. The relationship was partly characterised by Adela frequently prompting Alberto to take up his leadership role:

> "*I would say that [if] the [formal] leader… is a real leader, [it] helps a lot because then the leader can communicate easily and with… more authority…. People didn't even feel that [Alberto] was leading the project because he wasn't. But he was a formal leader and he sometimes wanted to make it happen like [saying], "I'm the director of the project." And it was like, "Yeah, but you are not delivering" So… I was in confrontation with him because I told him all the time, "But you didn't do that. You didn't deliver." And then somehow I confront him too much maybe*" (Adela).

Another aspect of their relationship was that the communication styles of these team members were not compatible: "*in some communications [Alberto] was very, kind of, I would say rude, and he would say direct*" (Adela). Adela would often notice tasks that needed better direction and mention during meetings that these tasks would need particular attention. In doing so Alberto would often "*feel hurt by my way of saying things. As if I try to blame him for something. We entered in some dynamics very horrible in fact. He feel accused by me*" (Adela). From Adela's perspective, Alberto misunderstood her intention, feeling she was unnecessarily blaming him, rather than trying to maintain high standards.

These interpersonal dynamics were complicated by several factors, such as Adela being a woman from Spain, whilst Alberto was an Italian man and both had poorer English relative to many others in the group: they were "*entering a very difficult dynamic because of the language, because of the gender, because of the culture*" (Adela). Even just prior to the meeting where their conflict occurred, Adela had been attempting to collaborate with Alberto, but had not had an email response which left her irritated with Alberto (Adela).

Past meetings

A further key point was that, since the Stockholm meeting, the project team collaborated more fruitfully outside of large groups. These small groups formed to collaborate on limited tasks began to work well, and interpersonal problems tended to occur in larger groups, whether face-to-face or remote. For Adela, "*the communication was more fluent when there were three people or so or working on particular tasks when trying to work in the general concept of the project. When we were a large group of eight people or so the communication starts to be really difficult*" (Adela). In short, communication in the group was easiest in "*small groups face-to-face. And the most difficult big groups face-to-face*" (Adela).

Stages of hidden disagreement

Communications preceding conflict

The incident itself was a conflict over a misunderstanding over a survey task, yet, as stated above, the underlying issues were undiscussed disagreements over the purpose of the project and a clash over leadership. The incident played out through an argument between Adela and Alberto during the penultimate face-to-face meeting in Milan. Anna, Alberto, and Ada did not mention the incident in their interviews despite their involvement, showing that the meaning of the incident was hidden to most other participants. For Adela it was a deeply significant incident she had reflected deeply upon and was also mentioned several times by Alessandra who she had confided in. Their personal accounts and documentary evidence therefore form the greatest part of the retelling of the incident.

The fifth project meeting in Milan where the conflict occurred was recalled as "*a very hard meeting, especially a really hard meeting*" (Adela), similar to the meeting in Stockholm. Unlike the Stockholm meeting, this meeting was held over two days rather than three. As the meeting was held in Milan, the two Italian partners sent two delegates each, and so made up four of the nine total participants (Milan meeting minutes).

The second session of the Milan meeting was designed to last 30 minutes as an update on the piloting progress but appears to have overrun. This session was dedicated to discussing the progress

of the piloting. At this point in the project, the piloting of the modules was the most important task, and the back-to-back sessions on piloting were needed to coordinate efforts and ensure that the aims of the project were fulfilled. The project had to achieve certain KPIs, such as a certain number of trainees participating in the training. The first of these sessions on piloting was supposed to be led by the Project Director, though Anna was the *de facto* leader of the session according to Adela:

> "*in Milano we defined some tasks, some objectives, and we had to reformulate some aims that we needed to fulfil for the European Commission. And in Milano, for me at least, it was clear that [Anna] was leading. But at the same time, there was a problem with [Alberto] in terms of who was leading, because [Alberto] was the formal leader. But [Anna] was actually the implementing leader, and she's the one who has been able make the project keep alive years later. So that tension was very clear, and I could see that between two of them. I mean, in a very hard way because I could see that and I couldn't manage it properly, basically*" (Adela).

With the piloting process being led by both Anna and the Project Director, other influential voices were heard less, such as Adela's own voice and Alessia, who were both keen for the meeting to focus on reaching the client's requirements. Adela became upset by the situation: she believed that the requirements of the project passing the final review were being de-emphasized in favour of project sustainability. Given there was six months till the project closed, she saw this as a vital point in the project and struggled to react productively to the situation as it was developing: "*I think that in [Milan], when that misunderstood happened [between Adela and Alberto], I was so upset—at—I saw it. I mean it was obviously that it was misunderstanding, but I couldn't see how to improve the situation on the go. I couldn't see it*" (Adela). Adela became caught up in the emotions of the meeting and the struggle to see her vision of the project be fulfilled and as a result began to lose some emotional control over this issue.

Conflict between Alberto and Adela

The following session was scheduled as a two-hour discussion between the partners present, who were each involved in the piloting process to "*share the piloting experience*" (Milan meeting minutes). Unlike the previous session, there was no named lead for the session. Instead, the group was to be split into smaller groups for discussion followed by feedback in plenary. This was in line with Adela and Alessandra's conclusions about the configurations where the team worked best. The agenda was not followed however: the meeting notes state that "*The partnership decided not to work in groups, but to have a joint discussion*" (Milan meeting notes). Whilst the notes called this session a 'discussion,' before the discussion on piloting experiences began the Project Director led a pre-prepared PowerPoint Presentation on the reporting requirements for the piloting. In this sense, the Project Director had decided to ignore the agenda and lead the session, shifting the focus away from an open discussion.

Alberto stated during his presentation that the data on piloting would be collected through Adela's evaluation survey. This survey had been recently drafted by Adela and colleagues and had been designed to collect outcome data for the project, rather than data for the individual national pilots. This was the first time that Alberto had said to partners that the survey was to collect data for the piloting process rather than aggregate data on the whole project.

Adela perceived this as a demand to change the survey from serving the programme overall to supporting the piloting in individual countries. As a result, she defended the survey as it had been designed: the survey questions were in line with the client contract as they measured the success of the whole project across all partners. Alberto repeated that he wished the survey to be adapted to capture outcomes desired by each partner. Adela was insistent that this was impossible with the survey software and because the survey had been finalized and so was 'closed' to further changes.

From Alessandra's perspective, as a colleague of Adela,

> "*We were doing a set of surveys and [Alberto] had made a request for the data to be analysed and have to take it away which hadn't been communicated to us…. We were doing our survey as we thought we would. And because he was working with the people on the ground he had some questions that he wanted the survey to do, which it wasn't doing at the time…. [Alberto's request was] a bit late in the day because of course he hadn't communicated that to us in any way shape or form up until then. I think it could have been a walk through between the two of them. [Instead], it became this back and forth and not so pleasant language. That I'm sure. But I think some of the language was interpreted as harsh, it was interpreted as being a demand, rather than a question. It was probably in terms of it being a bit bullish and from our side, from [Adela's] side, it was viewed that way, but on principle-- well, my perception is that on principle she stuck to her questions as a principle which was, "No, we're not doing this because this is what we agreed and this wasn't told to us, and also you're being a bit of a dick," so that's what happened, whereas actually I don't think it was that bad-- it was not bad*" (Alessandra).

Again, Adela badly took the communication style of Alberto. Perhaps in part because the session was designed as a discussion and became a presentation, Alberto's request was delivered as a statement more than a negotiation: "*My interpretation was that the request was just communicated in a bit of a—yeah, he didn't ask, "Please," and didn't say, "Thank you," and [he] just asked a question, and I thought, "Surely, we can do this"*" (Alessandra).

After there had been some tussling over the possibility to change the survey, Alberto and Anna had a brief aside in Italian. The symbolic nature of this exchange (between the emerging leaders of the project in a language she could not understand) triggered Adela to lose her patience:

> "*I couldn't say that it was [Anna] with the issue [with what I was saying], because [Anna] and [Alberto] spoke in Italian at some point. [M]aybe there was also some problem. But it was something political within our team. I mean, the formal authority was different to the*

> *informal leadership…. I don't remember the details, but I remember [Anna] saying something and [Alberto] saying something in low voice. And I opened, "Okay. There is an issue, and you want to do that and you want this other thing, and in the proposal, there is a third thing and we need to--" [laughter] I open it too directly…. Yeah, I was annoyed [with how they communicated]. Yeah. I mean, I think that that was one of the reasons because I couldn't manage it properly because I guess I got pissed off by some of the things. And then I lost my calm*" (Adela).

After this point, Adela was upset and angry, and communicated these emotions directly to Alberto and Anna. From Alessandra's perspective, Adela went "*berserk"* in response to "*some perfectly reasonable requests*" which were "*perceived as attacks*," in part "*because of the delivery of the message*" from Alberto.

Despite having lost her calm, Adela was aware of other team member's reactions:

> "*some members of the team didn't react at all. I mean, they were so shook that they couldn't react. I mean, I guess when-- I don't know what-- there was these faces of, "This is the first time in my life that something like that happened to me," kind of. So I think that two or three of them didn't react. I mean, they were kind of, "Oh my god. What's going on?" But they didn't react. And the Italian people [Anna and Alberto] reacted, yeah*" (Adela).

As the two Italian senior team members retorted strongly in their turn, the argument continued the topic of the survey task, rather than the purpose of the project. According to Adela, "*there was a conflict. There was a huge discussion…. But two or three of them were in silence, unable to say anything at all and wide faces like, "Oh my god. What's going on?""* (Adela). After some minutes of shouting, Adela then "*stormed out*" (Alessandra) of the meeting and did not return to the meeting until the next day. Whilst Alessandra continued in the meeting, neither Alessandra nor Adela attended the partner dinner in the evening as Adela was upset and Alessandra wanted to demonstrate solidarity with her.

Aftermath

Adela mostly regretted her reaction. She acknowledged that she had a direct communication style in general, but this was not appropriate in the already delicate social situation: "*I think that was not the way of doing it in that context because all of us, we were very direct and then the general environment was horrible. And that an environment in which it's impossible to work properly. So I should have been… softer*" (Adela).

Rather than being a shocking event that paralysed the group into inaction, the past experiences of previous conflicts and misunderstandings meant that the group was able to respond constructively and reasonably sympathetically to the incident: "*because it was such an emotionally charged partnership, I think some people towards the end were quite sympathetic because maybe [Alessia]*

had behaved in that way in the [Stockholm] meeting by almost throttling a person, so it became a like, "Okay, it's fine. We'll deal with it," because… it became part of the dynamic" (Alessandra).

The main vehicle for responding to the incident was a reflective session which was held the next day, the final day of the meeting. This workshop was run by Alessandra. The session was designed to "*provide a space for the partnership to step back and collectively think about what is working well and what can be further improved, in terms of collaborative working practices and project implementation. This is so the project can run smoothly in the months going forward*" (Formative evaluation session notes). Whilst the session was originally intended to focus on pilot implementation, the focus was changed to collaboration in the partnership because of the conflict the previous day: "*over the course of the meeting the previous day, partners had difficult moments. The reflective session therefore provided the space to take the time to reflect more widely on how partners are experiencing working together: the challenges that may be impacting on effective collaboration, what continues to work well and what needs to improve*" (Formative evaluation session notes).

The group was split into three groups of three and asked about "their experience of working in the partnership and the difficulties they were encountering; and what they felt needed to improve" (Formative evaluation session notes). The two themes reached across the three groups were: first, the methods "of communication that are used (or not) in between project meetings" and second, the norms of co-working that reduces discord between partners, or "the extent to which the partnership is able to reach, or agree on, a common framework for working together in a way that ensures misunderstandings are reduced" (Formative evaluation session notes). So the groups identified poor use of computer mediated communication between meetings and lack of ground rules as the underlying causes of these misunderstandings.

The first issue causing these disagreements was agreed as lack of communication, for which were two aspects: first, the lack of use for the communication mechanisms that are built in the project, such as Dropbox; and second, "*the extent to which partners feel that colleagues are paying attention to each other's work, by inputting, and giving feedback to deliverables or other tasks*" (Formative evaluation session notes). The two issues compounded each other, as the lack of sharing information in the context of little responsiveness meant that the conditions for robust collaboration were not present in the team. The final issue relating to communication was "*the need for continued leadership and commitment, which was sometimes seen to be missing*" (Formative evaluation session notes). This related to the earlier issues mentioned in the context section above, around the

absence of strong leadership from the designated management team, and why Anna, who had a clear commitment to the success of Project A, had emerged as an informal leader on the project.

In terms of developing a common understanding and ground rules, collaboration across partners was experienced as difficult due to the "*diversity of the partnership, in terms of language, background, culture and ways of working. This diversity is seen to be the cause of misunderstandings that are not resolved speedily and seen as creating "an unclear environment", with no shared rules of joint working, which leads to "self-oriented planning*"" (Formative evaluation session notes). Although the team had worked on the project for 2.5 years, the national, sectoral, linguistic, and cultural diversity continued to be formidable barriers to developing a shared understanding. According to the groups and given the difficulties experienced in incidents A(i), A(ii) and A(iii), partners preferred to avoid collaboration and to work alone.

In terms of solutions, regular bilateral agreements between partners were seen as useful when collaboration was needed, particularly because "*Splitting the partnership in smaller groups was also seen as a way to overcome challenges in face-to-face meetings, particularly in situations in which we get stuck*" (Formative evaluation session notes). This was particularly notable in the conflict on the previous day where the session was unexpectedly conducted in plenary. Second, partners were encouraged to pay more attention to "*mechanisms of communication*", such as Dropbox, and to fix scheduled partner calls as long as these calls were "*focussed on particular aspects of the project*" rather than being "*too diluted*" (Formative evaluation session notes). This note was ambiguous but likely meant that partner conference calls were often unfocused and needed concrete objectives. Finally, partners were encouraged "*to take more time to engage with other partner's outputs, request clarification if needed*" (Formative evaluation session notes).

This session was an excellent example of sensemaking (Weick, 1995) to understand a recent event: the group engaged in a retrospective discussion to rationalise the problems they had been encountering in working together. The solutions covered three major topics identified as issues: use of ICTs, norms of engagement, and group-size when collaborating. Doing this avoided the damaging blame tactics that were seen in the Stockholm meeting, allowing personal relationships to recover after an emotive conflict. In addition, the Stockholm meeting solutions were partially aimed at Alessia's behaviour, whilst here the solutions were aimed at preventing the conditions that caused the misunderstandings, to prevent them from occurring in the first place.

This sensemaking continued following the meeting, as shown in the meeting minutes, though this was clearly a contested process. The minutes for the session in which the conflict on the survey

occurred had several rounds of editing between Alessia, the Project Director and Alessandra. The main contestation was that Alessandra framed the incident not as a disagreement but as a misunderstanding. Her edited text read: "*The discussion highlighted a misunderstanding and different assumptions among partners about the purpose and use of the questionnaires*" (Milan meeting minutes). In defining the survey conflict as a misunderstanding, Alessandra reframed the issue as lack of communication rather than opposing opinions, allowing the group to move beyond blaming Adela and consider how communication could be improved to avoid this occurring again in the future.

However, whilst the meeting minutes agreed that there would be no separate surveys for each module, and that an understanding had been reached, several weeks later these were established, as requested by the Project Director. This meant that there were eight different surveys created, one for each module, which would support learning to improve each individual module, as well as the project as a whole. This decision went against the survey design outlined in the proposal and in line with the requests of the emerging leadership of the project. This conclusion to the misunderstanding left Adela believing that the project was at that point more or less in control of Anna: "*I think out of that conflict somehow, I don't know exactly how or why, it was clear that the proposal was kind of fiction in terms of what we needed to do not what we were able to do, and we were unable to do what the proposal said. So we were more kind of, okay then. Let's do what we can and actually we just can do what [Anna] proposes*" (Adela). For Adela, the resolution of this misunderstanding on the survey was therefore "*about power and leading the group*" (Adela).

Impact on team

Emotionally, the impact of this incident was largely upon Adela. The experience in the Milan meeting meant that for Adela, "*After the misunderstanding, I could say that this is the worst year. Worst year at least for me*" (Adela). For the group, however, the conflict may have released some of the friction of having several undiscussed disagreements on leadership and project purpose at least partially resolved:

> Adela: "*Somehow even if that was a difficult situation in the medium term, I mean, like you said [during the interview], it helped to make the project go ahead*."
>
> Interviewer: "*So it kind of unblocked a little bit some of the tension maybe*?"
>
> Adela: "*Yeah, I would say so. Yeah*."

From Adela's perspective, the conflict in Milan made it clear what was possible to achieve in the project and focused the project: "*that discussion somehow changed our perception of what was possible and what was not possible, at least for me. And I would say, I mean, we were dealing with*

the politics where also we were looking at everything… so I would say that that changed a little bit the dynamic and people had started to deliver better" (Adela). Having a clearer purpose, not only concerning delivering work to the terms of the contract but in creating a sustainable product, made collaboration in the final six months of the project less fractious. In addition, the discussion during the sensemaking session was only possible in reaction to the conflict. Whilst the project was near conclusion, this session managed to encapsulate many of the difficulties the team experienced and allowed the group to diagnose and prescribe solutions for many of the underlying issues faced in the project team relating to group norms and communication, which would have otherwise been hard to discuss.

The undiscussed issues on who led the project and what the purpose was also became clearer following the Milan meeting. For instance, at the final meeting, Anna's proposal for a sustainability plan was adopted without debate (Brussels meeting minutes). The lack of agreement on leadership and purpose was indirectly resolved through the contestation on the survey task, as Adela and others who wished to focus above all on fulfilling contractual obligations were forced to compromise by circumstances. In some ways, incident A(iv) represented the unresolved diversity of opinions which was a feature of the project team since it began:

> "*she was also carrying the frustration about the vision of what this project was meant to do which wasn't really consolidated in the beginning. Everybody was still carrying different interpretations of things, and different interpretations of what 'good' was. And different interpretations of where the project should go. And everybody hung onto that. And I think that's what-- everything was coloured through that lens a bit like, "No, I don't think what you asked me to do [is] what's important*."" (Alessandra).

This unresolved diversity of opinion meant it became more likely to have disagreements and conflicts as neither side would compromise, and leaders rarely strongly intervened. Power struggles became the norm in the project and 'out of the blue' revelation followed by conflict became embedded in the project:

> "*these conflicts have been happening throughout the project, I think people began to operate on point of principle, right? So because the kind of emotions in the partnership were such that-- people took very polarising positions, so I think even though the request had come to-- it soared out of the blue, maybe not in the nicest possible way, she didn't hear the request. She just heard the demand. She heard the impossibility of it. She thought that actually sticking to her guns by saying, "Actually, no. We didn't say we would do this, and this comes out of the blue," was more powerful than the ability to see that actually, sure, it was a bit out of the blue but nothing we couldn't have helped with. And that kind of-- so again, there were these polarising positions, but there was no willingness at the time to hear anything different. I think that's what the partnership had created in a way*" (Alessandra).

This dialectic style of communication was remarked upon frequently by Alessandra in her interview. She believed it was in part due to the powerful Italian in-group who had a culture which found public argumentation normal: "*Every time [Alberto] and [Alessia] were having a row. Then afterwards, they were laughing over a coffee. It was fine*" (Alessandra). Given the number of high-status Italians in the group, with all the formal and informal leaders sharing a nationality, this influenced the culture of communication in the group: "*if you've got the majority of people from one country you tend to operate-- that behaviour becomes your dominant one and you forget that there're [other] people*" (Alessandra). Yet when this dynamic is translated into a multi-national setting it becomes "*dramatic*" and "*unpleasant*" (Alessandra). In this way, the style of communications made it easier to live with diversity of opinions in the group. Yet towards the end of the project when the Milan meeting occurred, the lack of agreement on the groups common purpose became untenable as the project team needed to focus and successfully close the project.

The conflict in incident A(iv) managed to soften these norms of argumentation. As the incident was the most explosive, emotional conflict of the whole partnership, the issues around how the team communicated and dealt with disagreements became clarified as they were encapsulated in an event. This allowed Alessandra to facilitate a session where team members could honestly reflect, diagnose, and prescribe solutions to their problems as a team. In addition, the accession to Alberto and Anna's requests validated their emerging leadership and whose vision of the project was most important.

Analysis of Team A incidents in aggregate

As stated at the beginning of this chapter, the following chapter, 'Discussion,' will focus on answering research questions on the conditions that produce hidden discord, the effects that this has on a team and management of hidden discord. This summary reviews the conditions and effects of the incidents on Team A in particular and then focuses on the process and pathways of hidden discord in the team.

Conditions producing discord in Team A

For the underlying conditions that caused discord in Team A, there were clearly a large variety of factors. However, these can be grouped into issues around: diversity; communication habits; and effectiveness, and leadership contestation.

Diversity is a key component of globally dispersed teams and provides a variety of challenges. First language diversity was mentioned for each of the four incidents, particularly the two task misunderstandings, and the trigger for the conflict over team leadership was code switching (i.e., switching languages) between the two emerging leaders. Sectoral diversity was also a common

difficulty in collaboration in Team A, especially the initial disagreement over definitions which were assumed to be common across the Team and misassigning a task to a partner without the sectoral competence to fulfil it.

A second condition that led to misunderstandings and disagreements was effectiveness at communication. Deficiencies in communication competence was often an issue in Team A, particularly amongst the leaders of the group. The lack of emotional regulation was an issue for the leaders of the team during at least two face-to-face meetings in Stockholm and Milan, where senior team members lost emotional control, leading to humiliation and the flight of a key team member from the meeting respectively. Linguistic competence was also an issue, with comprehension of the proposal document and during meetings an issue in incident A(ii). Finally, unclear written instructions coupled with team members not asking or receiving further detail in their directions were factors in all four incidents.

The third set of conditions was related to the second: the communication habits that developed over time fertilised the ground and allowed incidents to continue to grow over the life cycle of the team. Underspecified instructions were an issue from the beginning of the project and also were raised at the end when there was a split in the team over the purpose of the module survey. Throughout the project there was little use of synchronous technology such as conference calls which led discord to develop unrecognised between face-to-face meetings making their emotional load much heavier. Finally, a legacy of unresolved issues had developed over important issues in the project, such as how to deal with disagreements or the overall project direction, which created a tense environment particularly during face-to-face meetings.

The final condition that produced misunderstandings and disagreements in Team A was related to leadership and contestation. Incidents A(ii), A(iii) and A(iv) had issues with leaders not taking responsibility at early stages, for instance, when Alessia and Project Director did not take the opportunity to raise issues with the reports produced for incidents A(ii) and A(iii) before meetings which led to surprising public chastisement rather than private feedback and course correction. Other leadership issues were also present, such as the rapport between leaders in incident A(iv) which created a conflict from a minor misunderstanding, and inattention to hierarchy when critiquing Ada's work as a junior staff member in incident A(iii).

Impact on Team A

The aftermath of each incident had a variety of impacts on team processes and the final outcomes of the project. The impact of incidents on project outcomes fell into three broad categories: emotional impact on the team; inefficiencies and splits; and post-incident resolutions.

The emotional impacts were wide in variety. Only incident A(i) had a mild emotional impact, which was assessed by Alberto as being irritating. The other incidents triggered quite extreme emotions particularly during realisation of disagreement and misunderstanding. These included anger, shame, and anxiety for participants, and for other staff a degree of awkwardness and distrust of those who misunderstood.

There were a variety of inefficiencies and splits following these critical incidents in the team. First, the occurrence of these incidents early in the project normalised high emotions and conflicts making relatively mild disagreements potentially disruptive to collaboration. Each of the incidents led to a loss of time, through protracted discussions (incidents A(i)), extremely lengthy task revisions (incidents A(ii) and A(iii)) and derailed face-to-face meetings (A(ii) and A(iv)). In addition, the misunderstanding of tasks led to lower quality reports at the beginning of the project which led to weaker foundations for the project. Another cost identified was distraction from tasks and loss of momentum, as the project's attention had to shift to conflict resolution and norm setting, rather than coordinating activities. Finally, for some team members, the incidents led to a loss of authority, particularly for Andrea, Ada, and Adela, which meant that some areas of the project such as marketing were taken less seriously.

Whilst none of the interviewees highlighted any incident as a positive experience, when looking at post-incident resolutions, these incidents had a range of positive outcomes. First, whilst not covered above, resolution of an early disagreement over contrasting definitions helped the team to enter a sensemaking process, and by following this process to completion, created common ground over a number of important working definitions which increased the knowledge of all partners. A second benefit of the incidents, particularly the conflicts at meetings, raised underlying issues to surface, such as the configurations where the team worked best (in small groups), the lack of discussion between meetings, and the issue of shared communication norms in a culturally diverse partnership. In having open conflicts, the team allowed honest debate to occur rather than indirect and polite discussions: the conflicts acted as a release value for some of the pressures that the team were under. The final incident (A(iv)) was also crucial in that Anna emerged afterwards as an effective and committed leader of the project. This was the second occasion after incident A(ii) when leaders emerged from critical incidents. Given her dedication to the continued life of the project after the contract ended, her leadership became *de jure* at the conclusion of the project when her organisation integrated the project into their activities, including the survey which continues to be used to measure the success of individual modules.

Process of discord in Team A

The remainder of this chapter examines the process and pathways of hidden discord in Team A. In terms of learning about the process of hidden discord in a team, it was clear that each incident was memorable and significant to the team. These were events that shaped the process and outcomes of the project. To an extent they were predictable, in that diverse globally dispersed teams are likely to have disagreements over basic terms and project direction or misunderstand vague instructions. The value of the in-depth case was in highlighting the differences between incidents that were similar from afar (such as incidents A(ii) and A(iii)) but were managed differently and had very dissimilar pathways and impacts. This indicates that each misunderstanding and hidden disagreement are unique events even when they have similar characteristics and their inimitable configuration, pathways and emotional content were each unique require a broad skillset to manage in globally dispersed teams, rather than formulaic techniques, which poses difficulties to develop generalised categories for incidents. For instance, as the misunderstanding in incident A(ii) was realised during a face-to-face meeting there was an aggressive conflict between Andrea and Alessia, whilst the realisation in incident A(iii) occurred over emails, through dispassionate critical feedback which was not responded to by Ada or Anna.

Another conclusion that can be drawn is that each 'case' was a cluster of smaller incidents that were concurrent and overlapping. When looking for distinct occurrences of discord, the four incidents were in fact at least ten. In incident A(i), there were two disagreements, one concerning the definitions of competences, another on the different staff target groups for the modules. In incident A(ii), there was an overall misunderstanding on the structure of the Marketing report but also another misunderstanding concerning Andrea's role in developing marketing materials and a disagreement about how Alessia handled the incident. In incident A(iii) it was unclear to the participants whether the lack of feedback on deliverables was due to disengagement or trust that the quality of the reports would be good enough. In incident A(iv) the misunderstanding about the module survey was made more significant as it related to underlying disagreements about the purpose of the project and the leadership roles of the team.

This clustering has a few implications. First, it implies that hidden discord is a pervasive condition in globally dispersed teams. The analysis showed that Team A had at least ten instances of misunderstandings and disagreements, which had a great variability in terms of severity, duration, topic, and type. The high number recalled by interviewees was particularly significant given that the project ended more than a year before the interviews, some incidents occurring nearly five years before the interview. It was also noticeable that some of the incidents were not recalled by all

interviewees, either they were particularly minor, they were hidden and privately held, or as they occurred during more significant incidents which took the attention of the group.

The co-incidence of cases, when one misunderstanding was nested within or alongside another, made them more difficult to manage. For instance, at the Stockholm meeting, a misunderstanding with both the research report and the marketing report were partially or fully identified on the same day. This clustering of incidents implies that misunderstandings can exacerbate other incidents. Indeed, identifying two major misunderstandings of her instructions by team members in one day may have triggered the loss of composure by Alessia. Outside of meetings, in cases such as incident A(ii), the structure of the marketing report was raised but not followed up in further communications as a more immediate misunderstanding was revealed about the role of the marketing partner that had to be clarified over a series of emails which were difficult to interpret and follow.

The frequency with which one incident was accompanied by others implies that the presence of one misunderstanding may indicate that other misunderstandings are also present. This is in line with the view that misunderstandings and hidden disagreements are symptom of poor communication across a team, and poor communication makes incidents both more likely to occur and less likely to be dealt with effectively. Whilst ten incidents were identified, given the communication difficulties in Team A it is likely that other incidents of misunderstanding and disagreements also occurred but were either forgotten or never realised.

More positively, the cases from Team A also showed that these incidents are opportunities to improve communication culture and practice across a team. As noted following the marketing task conflict, the first opportunity was partially taken following the conflict during the Stockholm meeting. An 'extraordinary meeting' was set up for December 2014 in part to discuss ways of working and to ensure further conflicts did not occur. Yet the meeting minutes reveal that group norms around collaboration were not actually discussed and the reflective session was not implemented due to time overrunning. Partly because these issues were not discussed at this meeting, discord in the team continued and, in a project that was characterised by aggressive exchanges, the final conflict was the most violent. Alessandra said the conflict was "*very aggressive*" and that she had "*never ever seen something like that ever since*" (Alessandra). This event can be viewed retrospectively as an emotional 'hangover' from unresolved issues earlier in the project.

By not taking the earlier opportunity to improve communication norms and practices, the team grew further apart: "*I think that [incident A(iv)] was a hangover and a legacy from all the meetings we've*

had… the frustrations really blew up" (Alessandra). At this point, the opportunity to reflect on the team's difficulties was fully taken. Following this incident, the reflective session in the Milan meeting was redesigned to address these systemic communication issues, and this sensemaking session helped the team resolve leadership and purpose issues. This shows that realisation of hidden discord can be taken by managers as 'data' that there are underlying relational and communication issues in a team who can act with a common objective of preventing further difficult moments in the group. In incident A(iv), when the nature of the incident of discord remained hidden to the team managers, it was still an important incident for Adela to contest and come to terms with the shift in purpose of the project.

Finally, the stage and timing of the incidents was significant. The type of issue encountered was to some extent predictable according to the project lifecycle, and Team A is perhaps interesting in part due to the failure to adequately prepare and react to stages in the virtual team lifecycle. Early in project, basic definitions had to be agreed as a basis for collaboration. Later two tasks were misunderstood by the work package leaders; both tasks were some of the earliest in the project timeline. Finally, long-standing disagreements on leadership and project purpose were indirectly raised. This tracks to the project lifecycle, where ground rules are first established in a team (when basic definitions were worked through), then communications and knowledge sharing norms are established (through the experience of collaborating on tasks), followed by agreement of a common direction and vision for the future of the team (resolving disagreements over purpose and leadership). By mapping incident types to project stage these issues are to a degree predictable and easier to manage by project leaders, even if each incident remains unique. Knowing which types of issue are likely at different time is particularly important information to note in globally dispersed teams where there may be few indications that a misunderstanding or disagreement has occurred due to the staccato nature of communication in hybrid virtual teams.

Summary

This chapter introduced three incidents from Team A, providing an overall background to the team, and a breakdown of each incident by typology, description, context, pathways of incident, and impact upon the team. This chapters highlighted several features of hidden discord which were not shown in aggregate analysis: how discord shaped the process and outcomes of the project as an event, that each 'case' was a cluster of minor incidents rather than a linear model, that discord events usually overlapped with other events, and how discord can be leveraged as an opportunity to sensemake. By examining hidden discord incident pathways, the phenomenon was shown to be a symptom underlying other issues regarding communication, tasks and team roles, and a cause of

future communication issues, as well as major events which shifted the pathways of the team and the project's chances of success.

Chapter 7 Discussion

Hidden discord - misunderstandings, nonunderstandings and disagreements - have been shown in previous chapters to be a normal and sometimes frequent phenomenon in globally dispersed teams. Despite the regularity of their occurrence, incidents of hidden discord follow different pathways depending on the context they occur in and how they are dealt with, making each incident a unique amalgamation of the various forces and factors present within a GVT. The aim of this chapter is the discuss the findings in relation to the literature. It begins by **answering to the research questions** from the study in the context of relevant literature to understand the common conditions, types, effects, and management techniques across the various pathways of incident.

Following this, the **five key contributions** of the study are outlined: a) the importance of unsurfaced phenomena in globally dispersed teams, b) further causes of communication breakdown, c) interdisciplinary insights from sociolinguistics, d) the methodological use of critical incidents, and e) the practical management of hidden discord. These wide-ranging contributions to both the global teams and sociolinguistics fields reflect that the study is the first research on misunderstandings and disagreements in global virtual teams and, whilst exploratory, the study provides a robust foundation for future research.

Answers to the research questions

What conditions generate hidden discord in the communications of globally dispersed teams?

The question, mostly addressed in Chapter 5, concerns the context in which hidden discord occurs and relates to three topics: the context of global dispersion, the patterns of communication in the team, and power and contestation within the group.

The first set of conditions, **the virtual team context**, concern the global dispersal and technological enablement of the teams in the study. Technological enablement was of central importance to the development of hidden discord and was related to the difficulty of knowledge sharing using CMC (Lee et al, 2021; Waizenegger et al, 2020; Hacker et al, 2020) leading to gaps in knowledge and understanding. Technology was also seen as an issue in developing interpersonal relationships and a strong team rapport where disagreements could be discussed with ease. Whilst not a primary condition for either misunderstandings or disagreements, technological enablement was important to a large proportion of incidents occurring. Project teams which began using remote communications led to incidents which took longer to identify and resolve (incidents A(iii), D(ii), O(xxxi)).

Differences in language capability were particularly associated with causing misunderstandings. When participants misspoke, misheard, or misread this was often in the context of teams with strong language asymmetries: the only teams where significant misunderstandings were found were those with participants with poor *lingua franca* proficiency or no common *lingua franca* (incidents A(ii), Z(i, ii, and iii)). Disagreements were sometimes caused by lack of subtly in using a language, yet language diversity could also ameliorate disagreements, as interlocutors were generally sympathetic to the difficulties in second language communication and often ascribed innocent motives. Having a range of cultural behaviours and national identities could also lead to misunderstandings and disagreements, for instance, misunderstanding culturally specific behaviours around communication such as argumentation (incident O(xviii)) or general disagreements from having different understandings of work concepts such as the role of a 'manager'.

The second set of conditions, **patterns of communication**, concerns three factors: communication channels, communication habits, and communication intensity. Whilst none of these conditions was a primary condition, each of the three were common conditions present in several disagreements and misunderstandings. The first category, channel specific communication, was particularly associated with global teams that used CMC in ways that ran counter to media synchronicity theory (MST) (DeLuca and Valacich, 2006), for instance, passing on detailed instructions using conference calls (incident O(vi)), or discussing complex issues over email (incident A(ii)), prompting misunderstandings and uncontained disagreements. Unskilful CMC was often exacerbated when linguistic capabilities were misaligned: for example, some participants had strong reading skills but were unused to verbal communication in English and could find online calls more difficult to navigate without meeting minutes (Claire).

Communication habits would also often clash in some teams, particularly where there was less cultural familiarity, such as the Chinese-British collaboration in Team Z. Clashing communication habits a was multi-faceted condition, and included several types of problematic interactions: disagreements occurring due to clashing discourse practices (incident O(xviii)), use of language to exclude some from knowledge exchanges (Donatella), strict adherence to *lingua franca* disadvantaging those in the group with worse linguistic skills (Team A), and face-to-face meetings being sites where discourse clashes (Zhenzhen). There is therefore great scope for communication habits in global teams to be a source of discord, particularly in the early stages of team development where a syncretic, multifaceted communication system has yet to be developed (see also Henderson, 2005). In addition, the intensity of collaboration also influenced whether hidden discord would arise in a team: usually, intense regular collaboration reduces the chance of under the surface

misunderstandings and disagreements arising, particularly unrealised misunderstandings and unsurfaced disagreements (Beatrix, Claire).

The final set of conditions relate to **power and contestation** - **cultural, sectoral, and organisational**. Some of the most damaging incidents resulted from contestation and power issues, and these conditions were more associated with disagreements than misunderstandings. Pre-existing disagreements were common in most teams, where there was an existing divergence of opinions at project inception. Such divergences were made more difficult to identify and resolve when project proposals were written by a single partner (Teams A and E), task allocation was not optimised to the capabilities of team participants (incidents A(ii and iiii), B(i)), and project design was unclear (incidents D(i) and Z(i)). When these conditions occurred, they provided several fields for contestation over opinions and understanding later in the project. Disempowerment often resulted in disagreements, for instance, when team members felt dominated by others. Some misunderstandings also arose from withholding information from staff in weaker positions within the team (incident A(iii)). Organisational contestation was also a common source of hidden discord, particularly disagreements (incidents A(iii), B(i), D(iii and iv), E(ii), O(iv) and O(v)). Contestation was the most likely condition for conflictual discord, that is, damaging misunderstandings and repressed conflicts. Organisational contests would make team members less willing to collaborate, create unwelcome surprises due to lack of communication, and meant that emotional responses were often less constrained.

These nine conditions can be seen as an **interrelated set of challenges** commonly seen in global teams. The virtual team context provides a pre-existing set of challenges to navigate which make hidden discord more likely to occur, forming the background field of interactions. Challenges from patterns of communication are not mutually exclusive with the virtual team context: rather they represent the active engagement of CMC, and navigation of language and culture diversity issues in communication in a team. The habits and behaviours embodied in patterns of communication become some of the main conditions in which unintentional hidden discord arises. Whilst the virtual team context forms the field of interactions, and communication patterns relate to habitual behaviour, contestation is associated more with the politics and relations of global team and the desire for status, power and meaning (Lauring and Klitmøller, 2015; Hoch and Kozlowski, 2014).

These conditions provide the background for hidden discord's occurrence in global teams. Yet before an incident occurs a **trigger is required**. The main triggers for misunderstandings were poor communication design (Mustajoki, 2012) and lack of verification (Pietikäinen, 2016). Members of global teams, particularly managers, often triggered a misunderstanding by insufficiently explaining

instructions using an appropriate mix of asynchronous and synchronous media (incident A(ii), O(i and xxi). In turn, misunderstandings were likely to be triggered when the recipients of instructions failed to verify or check their understanding (E(v), O(iii)). The main triggers related to disagreements were avoidance of discussion (Marra, 2012) and poorly designed communication. Avoidance of discussion was particularly associated with undiscussed disagreements (where few opportunities were available or taken to discuss areas of disagreement as in incidents A(v) and B(iii)) and repressed conflicts (where topics of contention became avoided after uncomfortable conflicts as in incidents B(i), D(iii and iv)). Contained disagreements and repressed conflicts could be caused by poorly designed communication (where poor communication triggers an upset reaction in the recipient as in incidents B(ii), O(xxxii)). Contained disagreements and repressed conflicts can also be initially triggered by a team member simply raising a disagreement in a deliberate manner (incidents C(iii), D(iii)). This difference between disagreements and misunderstandings highlights that disagreements can be a usual part of communication whilst misunderstandings require a certain level of aberration to occur.

It is worth noting that a great many conditions are Identified as primary or secondary for misunderstandings and disagreements (eight for each). This was because there was no incident which was due to a single condition. Instead, what leads to hidden discord is the challenge of simultaneously managing multiple conditions which are present in global teams. In addition, the first five conditions (computer mediated communication, language diversity, cultural diversity, channel specific communication, and communication habits) are identified as being global team specific, as ICT/media channels, cultural-linguistic diversity and clashing communication habits are each exacerbated in global team settings. Since five of nine conditions for hidden discord are associated with the challenge of global work, this may imply that **hidden discord is more prevalent** and more difficult to prevent in global teams than co-located teams.

What types of hidden discord can be seen in the communications of globally dispersed teams?

Types of hidden discord were usually discussed in this work according to the pathway the incident took, as shown at length in Appendix 1. However, the analysis initially categorised incidents by the **topics** of discord. These were the immediate subject matter of the misunderstanding, nonunderstanding, or disagreement: interpretation of words, tasks, roles, norms of behaviour and team purpose. Usually, the most trivial topic was over interpretation of words, where misunderstandings would arise from a phonetical mishearing, incorrect use of grammar, or insufficient vocabulary, for example, rather than saying she did not support funding a particular city, interviewee Bianca said she was "*against this city*" (incident O(i)). Another topic was discord over

tasks, which most often took the form of misunderstanding instructions, or disagreement over the form a task should take. Discord over roles was often difficult and sensitive, for example when team members were unclear who was the main decision maker in Team B (incident B(iii)). Less common yet more difficult to resolve were incidents of discord over norms of behaviour. These were exclusively disagreements over how other team members had acted and were sufficiently difficult to address with sensitivity that most cases were unresolved. Another topic of discord was over the purpose of team. These were uncommon and more wide ranging in nature, yet when recognised early in a project, were possible to resolve (incident B(ii)).

One topic of discord which behaved in an unusual manner was **norms of behaviour**. In this case discord occurred over the topic of ground rules themselves, with many incidents escalated during discussion to a disagreement about *how* to disagree or *how* to misunderstand. Participants would often critique management and behaviour during a misunderstanding or disagreement, often following one party contravening the ground rules, and discussions over 'bad' behaviour were what often led to conflicts, a frequent result of disagreements which are expressed without sufficient politeness or playfulness (Alzahrani, 2020; Locher and Bolander, 2017; Marra, 2012). Whether norm-breaking behaviour was successfully challenged or not, the precedent of poor behaviour was often repeated later in a project, showing how norms and ground rules were formed live through the experience of such incidents. In Incident A(iv), where a shouting argument ended with one participant leaving a face-to-face meeting, the behaviour was very unusual for most professional settings, but for this group, rather than being a shocking event that paralysed the group into inaction, the past experiences of previous conflicts and misunderstandings meant that the group responded quickly, constructively, and reasonably sympathetically to the participants in the incident. Such examples show that where ground rules are broken early in a project team, they acted to normalise the display of high emotions and conflicts making relatively mild disagreements potentially disruptive to collaboration, but also making a group resilient to future shocks.

In terms of type of discord, at a high-level, discord events in GVTs should be conceptualised as a cluster of significant interactions, with different stages and often involving a mix of misunderstandings, non-understandings, and disagreements. For instance, each 'case' in Team A was shown to be a cluster of smaller incidents that were concurrent and overlapping: incident A(iv) 'Milan meeting' was a repressed disagreement about leadership, which also encompassed a misunderstanding (or disagreement) over survey questions. This pattern of clustered incidents also implies that hidden discord often serves to exacerbate or hide other incidents. The theoretical implication of this is that, given the communication constraints in dispersed teams, GVTs may only

have a certain capacity level (or 'bandwidth') to recognise and deal with incidents of discord at a time and that researchers in this area are dealing in uncertain, liminal categories (Marra, 2012).

The main typology developed was to categorise incidents by the sub-type of misunderstanding or disagreement, which resulted in the seven types of hidden discord discussed throughout the thesis: unrealised misunderstandings, contained misunderstandings, damaging misunderstandings, nonunderstandings, undiscussed disagreements, contained disagreement and repressed conflicts. These **seven types can be clustered into three cross-cutting types** of hidden discord identified in global teams: discord that was characterised by lack of communication, discord which was emotionally contained, and discord that became conflictual.

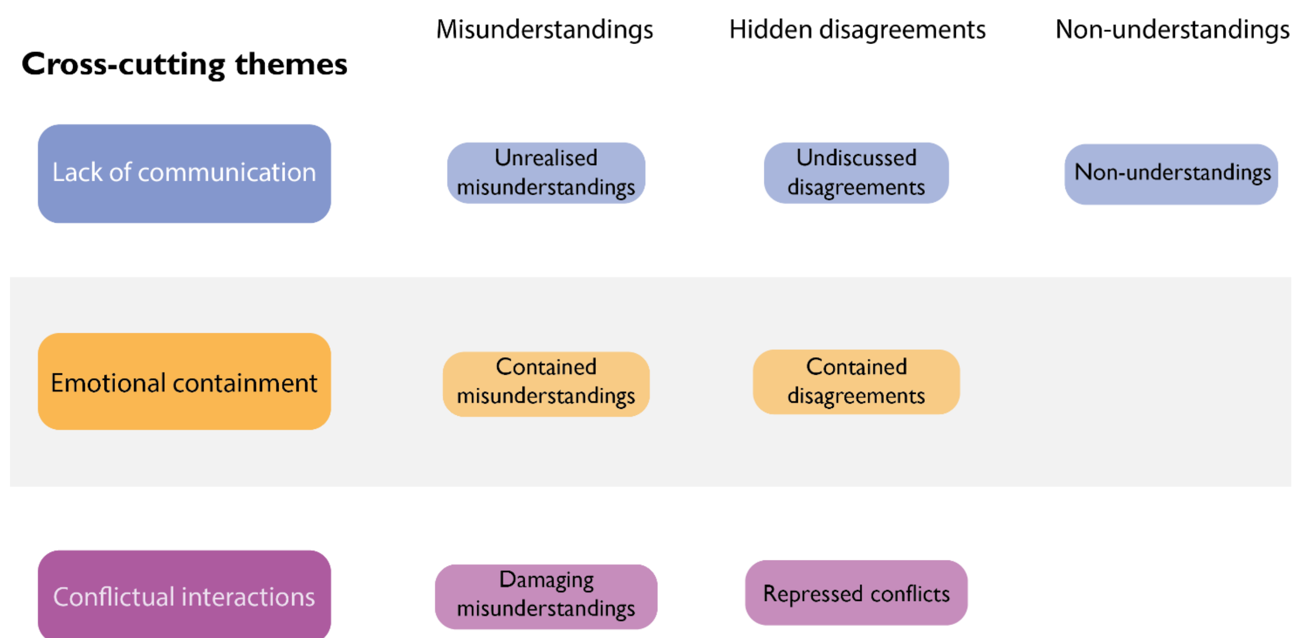

Figure 17 Full typology of hidden discord in globally dispersed teams. In descending order, 14 contained disagreements, nine repressed conflicts, eight contained misunderstandings, eight damaging misunderstandings, eight undiscussed disagreements, four nonunderstandings, and two unrealised misunderstandings.

The first cross-cutting theme, **lack of communication**, relates to discord which is never fully surfaced. The first type within this category is undiscussed disagreements. Disagreements literature notes that disagreement is a 'dispreferred action' (Sacks et al, 1978) which implies that disagreements are only acted upon in specific circumstances. Undiscussed disagreements can be seen as a logical result of people preferring to avoid disagreements; these are a novel form of disagreement uncategorised in sociolinguistics literature, perhaps as the disagreement is unexpressed and therefore not present in discourse. This type of disagreement was common in global teams, particularly where synchronous communication was rare or irregular, or where trust between colleagues was low. In such circumstances it was often easier to decide to leave a disagreement closed and to remain polite and distant rather than entering a risky conversation that

may lead to the group dissolving. More subtle expressions of disagreements which do not rely on utterances (Toomaneejinda and Harding, 2018) were not observed in the study, either as this research relied on interviews and text rather than observation, or because the limitations of CMC meant that subtle disagreements were more difficult to enact: disagreements were either explicit or undiscussed.

Unrealised misunderstandings were also strongly associated with lack of communication, particularly lack of checking understanding (Pietikäinen, 2018). Unrealised misunderstandings were the least common type of misunderstanding, and generally occurred at end of interactions. Given that the teams selected each lasted several years, it is likely that unrealised misunderstandings were more common in short-duration teams as these incidents generally occurred when there were limited opportunities for further synchronous communications. This may imply that unrealised misunderstandings are more common in short duration virtual teams which rely on asynchronous communications. Nonunderstandings were also uncommon for similar reasons: when there were few opportunities for clarification cycles and sense-checking was unusual, nonunderstandings were more common. However, unlike unrealised misunderstandings, nonunderstandings never had major consequences as the participants were aware of their ignorance and so did not act decisively due to their uncertainty. The uncertain condition in hidden discord is highlighted in nonunderstandings, but it is worth reminding that many of the incidents in Chapter 6 were not concluded with full realisation by all participants, but sufficient clarification and resolution to continue the work (incident A(i)) and some participants would remain unaware of the nature of an incident even years later (incident A(iv)).

The second cross-cutting theme was **emotional containment**. Emotional containment does not imply emotional suppression; instead, emotions are managed (both internally by the self and externally by others) so that the initial emotional response to an incident does not result in splits within a group, particularly where emotions are directed at others such as anger and embarrassment. The first type in this category were contained misunderstandings. Contained misunderstandings were incidents that were publicly revealed and resolved in a manner which balanced listener and speaker responsibility. Contained misunderstandings usually occurred when language proficiency was relatively even, when communication was in smaller groups and participants used synchronous communications. Incidents were nearly always resolved face-to-face where alliance building was much more effective (Toomaneejinda and Harding, 2018; Kangasharju, 2002).

Similarly, contained disagreements were often purposefully triggered during face-to-face meetings. The incidents were often initially emotionally powerful with some featuring a clash of communication styles (incidents A(i), O(xxii)), but then handled with patience and diplomacy. Containment occurred where participants had a degree of trust to one another (incident O(ix)), or early in a project where swift trust was present (incident B(ii)). This level of patience was also associated with second language communication being more tolerant for divergent opinions, and even dismissing the disagreement as a mere misunderstanding (incidents A(i) and (iv)). Synchronous communication in larger groups was shown to prompt group emotional transfer dynamics and so incidents were often contained using more than one type of communication platform and group size. At times, a contained incident was reflected upon and led to addressing difficulties in communication and so these incidents could lead to changes in a team or continuation of the *status quo*.

The final cross-cutting theme was **conflictual interactions**. Incidents characterised by conflict were often the most damaging to group cohesion, although it is worth noting that conflict can be understood as having a social function to stimulate a group out of a position of indifference (Simmel, 2010[1908]). Two types of hidden discord fit in this category. First, damaging misunderstandings occurred when misunderstandings were unsuccessful contained. These incidents usually featured blame dynamics and use of power by managers to alter discourse around the event in assigning guilt for the incident. Damaging misunderstandings often featured asynchronous communications at important moments (such as the initial identification of the misunderstanding). Damaging incidents occurred mostly in teams with a poor group atmosphere (Jehn and Mannix, 2001), especially low trust and rapport, and with leaders who tended to blame individuals rather than systems and processes.

The other type of conflictual incident was repressed conflicts. These were disagreements which were ineffectively contained and were resolved using in-group authority to close discussion (Marra, 2012). This led to a conflict which was later supressed by those with sufficient in-group authority. Repressed conflicts fit with a tendency identified in this study for participants in GVTs to push uncomfortable interactions below the surface, so that difficult emotions are not openly processed in-group and are left to individuals and small groups to discuss in private. This tendency to repress conflicts was associated with the difficulty in a remote context to effectively disagree as many of the aids to disagreement, such as eye contact with potential allies and body shifts to signal discomfort, were not available virtually (Toomaneejinda and Harding, 2018). As is shown in section on impact below, conflictual incidents were often unresolved or partially resolved, often resulting in splits.

Conflictual incidents were also most associated with leadership emergence and resistance as clumsy management of conflicts could be redressed by other influential team members, and eventually engage sensemaking. However, these incidents also often influenced group norms as the example of dysfunctional behaviour in the team in early part of a conflict often shaped later behavioural patterns.

Whilst this study has attempted to characterise disagreements and misunderstandings as separate phenomena, the overarching label 'hidden discord' has validity in many respects given **clear overlap between types**. In many incidents, categorisation was difficult to do with high confidence due to the limitations of subjective knowledge and judgement, both for the researcher and the research participants. Previous studies of disagreements in the pragmatics field have found it "almost impossible" to accurately categorise disagreements, as they are often categorised by at least one participant as a misunderstanding or miscommunication (Marra, 2012: 1588). This is reflected in that all interviewees in this study were asked about misunderstandings, yet over fifty percent of incidents have been categorised as disagreements.[10] Within interviews, research participants would express doubt whether what was being described was a misunderstanding. Yet even in such cases, they accepted the use of the softer, more neutral language of 'misunderstanding'. By doing so, research participants could focus the incidents on communication content and communication design and play down the interpersonal and power dimensions of a disagreement. Pragmatics literature suggests that mis-categorisation of disagreements as misunderstandings is itself significant, as the more influential party in a disagreement can suggest the other participant has misunderstood and that 'correction' was needed (Marra, 2012), which deflects any challenge to the status quo and disempower the party which disagrees.

In addition, the **categories of hidden discord are not mutually exclusive**; cases often had a high degree of ambiguity, where it was not possible for me, as the researcher, or the interview participant to know the category of discord being experienced. In incident E(v), a partner could not be present during an online meeting due to being on strike. Upon hearing this the Project Manager, perhaps jokingly, commented "*Well, democracy is a beautiful thing.*" As no one followed up on the comment, the interviewee, Eugenia, could not decide from two interpretations "*One, he's joking.*

[10] This does not imply infallibility on my behalf in terms of categorisation. In many instances there were elements of misunderstanding within those incidents classified as a disagreement, such as initial poor communication which hid the existence of a disagreement. However, many incidents were differences of opinion which were not resolved once the disagreement was understood. My categorisation does not imply full confidence or full knowledge of an incident in comparison to research participants; rather the categorisation implies the balance of probability given the partial data I had available.

Two, he's an asshole" (Eugenia). In this case, there was a clear case of nonunderstanding. Yet, if the coordinator was sarcastically criticising the partner for going on strike, the case was also an undiscussed disagreement about whether attending meetings was more important than honouring strikes. In other cases, a misunderstanding was partially resolved, sufficient to continue working but not enough to be certain about what happened or why (incident A(i)). This situation of simultaneous nonunderstanding/misunderstanding and disagreement is likely to be common, and incidents that began as misunderstandings, once realised, often transitioned immediately to disagreements, conflicts or nonunderstandings. This process of overlap underlines the uncertainty in the categorisation process for those experiencing hidden discord and for any researcher engaging in the topic.

Whilst a conventional conception of power was used in the thesis, as "the discretion and the means to asymmetrically enforce one's will over others" (Sturm and Antonokis, 2015) with the end goal in many disagreements being increased power (Rees-Miller, 2000), some behaviours by leaders in GVTs were suggestive of a particularly deceptive or underhand function of power. Zygmunt Bauman in Liquid Modernity (2013) suggests that, increasingly, a function of power is the ability to escape responsibility. Many leaders in the study's GVTs reflected this tendency to avoid, repress, and reframe disagreements as misunderstandings: indeed, there were more ignored, repressed, and reframed disagreements than resolved disagreements. As implied by the 'hidden' aspect of discord in GVTs, rather than directly addressing a disagreement, managers often found ways to deflect from disagreements, or to assign responsibility for a misunderstanding on others. The topics of disagreements were often a matter of reshaping a task or team, and often managers preferred to ignore disagreements, or pass them off as misunderstandings. As communication in GVTs features many discontinuities (Asatiani and Penttinen, 2019; Watson-Manheim et al, 2012), it is perhaps more difficult to sustain a power struggle, as reflected in the tendency to repress long-lasting disagreements.

How does hidden discord impact globally dispersed teams?

Hidden discord is not an omnipresent phenomenon which occurs all the time in all teams; it occurs in some teams, some of the time, and does not define all interactions. For the project teams in this study, which lasted between two and five years, no team members recalled more than five incidents of hidden discord. Whilst some incidents could last months, many comprised one or two short interactions. The more serious incidents shaped interactions in a team to a great extent and took many resources to handle, whilst less impactful incidents were barely recalled. This implies that events such as misunderstandings and disagreements are often vital to account for in understanding global team success, and also that such events do not occur in all global teams. Perhaps the most

obvious finding from this variety is that the **same types of discord can have widely varying outcomes depending on the pathways taken**. A conflictual interaction such as a damaging misunderstanding can be initially missed, settled after cycles of blame and resentment, and never discussed in a group, reducing psychological safety, consensus, and the quality of work, as in incident A(iii). Another damaging misunderstanding can lead to resistance of blaming behaviours, engagement in sensemaking behaviours, leading to shifts in roles, communication patterns and group norms, as occurred in incident A(ii). The conditions of the team, the triggers for the discord, and the communications medium where the discord was revealed, all impacted upon the outcomes of each incident type.

The multiple potential pathways, situational context, and variety of skills and characters in global teams mean that **the study has not produced a standard set of outcomes** to hidden discord incidents. Indeed, any endeavour to do so would be misleading given multiple contingencies in each team. However, this study has identified a range of outcomes and mechanisms by which these outcomes are reached which may also translate to other contexts.

The study **identified three pathways** that defined what effects an incident of hidden discord would have upon emotions, upon communication, and upon effectiveness of a team. These three impact pathways are shared by both misunderstandings and disagreements and correspond to the typology presented in the previous section: a pathway where incidents were never discussed; a pathway

where incidents were discussed and emotionally contained; and a pathway where conflicts occurred. These pathways are displayed in Figure 18 below and explored in detail in Appendix 1.

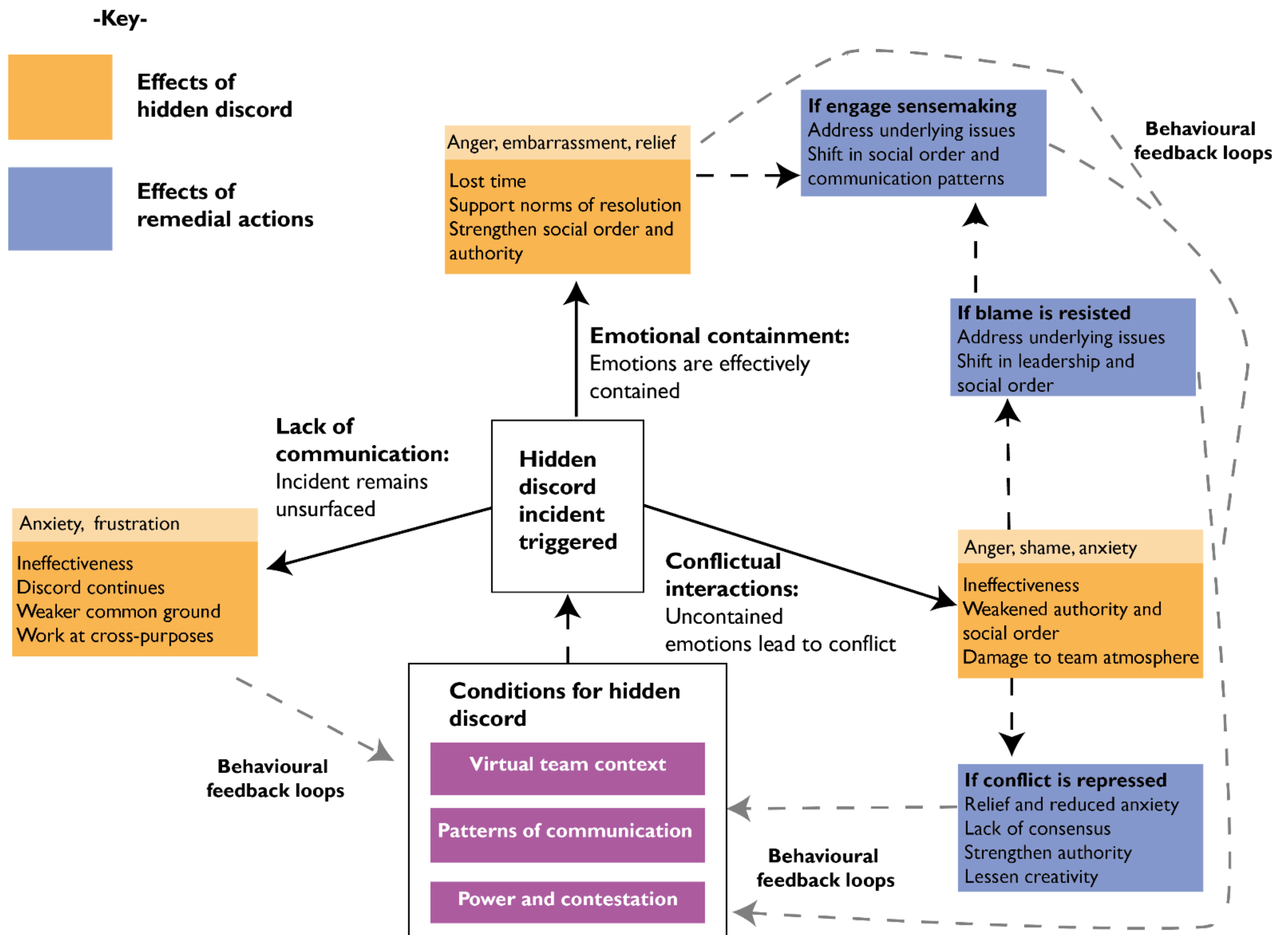

Figure 18 Model of hidden discord effect pathways, conditions, and triggers features

For incidents that **feature lack of communication** (nonunderstandings, undiscussed disagreements and unrealised misunderstandings), the common emotional reactions are **anxiety** (about what it may mean for the project that a significant topic is not being raised) and **frustration** (at a situation not being resolved). For unrealised misunderstandings, these emotions are generally retrospective, as at the time of the incident, the misunderstanding was not recognised: in the initial period, there was only confusion about the situation. This sense of being stymied and unable to act due to politeness or a poor group atmosphere led to several effects, the most obvious being that the disagreement or misunderstanding continued and could not be addressed. Being unaddressed, team members work at cross-purposes, having little agreement of how to work together or shared understanding of the tasks at hand. Being at cross purposes means that a team does avoid open

conflict and damaging splits, but the team is less capable of achieving its ends, less effective and has a weaker sense of common ground between team members.

This pathway was frequently followed in global teams partly due to **virtuality**: there is little sociolinguistics literature on undiscussed disagreements or unrealised misunderstandings and so these phenomena may be largely a feature of online group dynamics in absence of affordances of face-to-face communication which afford alliance building over disagreements such as eye contact or body shifts (Kangashuarju, 2002). This is likely because virtual settings afford less psychological safety and so participants do not feel secure enough to open potentially contentious discussions on an area of known disagreement. For instance, some mechanisms for disagreement require eye contact (Toomaneejinda and Harding, 2018), an ability hampered in video conferences and unavailable in text-based or voice-only communications. Avoiding disagreements may become habitual in some teams, particularly in teams with team members from cultures which prioritise politeness and hierarchical relations where challenges are unwelcome.

In incidents which **feature emotional containment** (contained misunderstandings and contained disagreements), the emotional reactions are mixed. Initially participants were often angry about not being listened to attentively or about being publicly contradicted, and some participants may grow embarrassed about the incident, either due to being at fault or being embarrassed of the behaviour observed during the incident. Once resolved, participants tended to feel **relieved, less anxious and satisfied**. The effects of this type of hidden discord are to strengthen bonds in a team, for instance, stronger norms of resolution, common ground, social order, and authority of the managers who navigated the incident. Given these benefits, the experience of raising disagreements or going through misunderstandings can be important to build links in teams, particularly where teams possess members who are skilful communicators. Other influential factors include the relational histories between team members (Sifianou, 2012), the cultural composition of the group (Koutsantoni, 2005) and the gender of participants (Makri-Tsilipakou, 1995)

This study has also shown the value of focusing on incidents as a focus point for **improvisation, creativity and sensemaking** in GVTs. The opportunities presented by disagreements and misunderstanding are shown in the improvisations which occur following an incident. Improvisation is a concept that is closely related with sensemaking because both processes entail actions taken “on the fly” at the individual level that have implications at the team, project, and organisational levels (Tan et al, 2020). Improvisation has also been shown as important to generate creativity in virtual teams: creativity results from improvisations which utilise existing knowledge (Pink et al, 2017). Raising a disagreement or recognising a misunderstanding provides an opportunity for sensemaking

as the wider meaning of an incident is reflected upon. Sensemaking is an important activity in teams (Orr and Scott, 2008) and so exploiting such opportunities to understand team discord and dysfunction can aid them in fulfilling their common purpose. When teams took these opportunities, they could address underlying issues such as unclear roles or tasks and reflect upon communication norms and habits. The results of reflective discussions could be brought forward during future incidents, where team members could intervene during emotional discussions to remind participants of how they had agreed to deal with such incidents, thereby supporting social order adaptation (Orr and Scott, 2008).

The third pathway for incidents which **feature conflictual interactions** included both disagreements and damaging misunderstandings. In uncontained conflicts (damaging misunderstandings and repressed conflicts), the impacts are related to the initial expression of strong emotions and the inability to manage these in the group. Whilst 'conflict' in VT literature often conflates disagreements and conflicts (Paul and Dennis, 2018; Kankanhalli et al, 2006), the pathway of disagreements in this study were quite distinct from conflicts: conflicts could begin as disagreements yet not all disagreements became conflicts. When effectively contained, disagreements were often mild occurrences which allowed the expression of a contrary opinion and a synthetic solution to arise.

Misunderstandings could become conflictual after emotional reactions were poorly managed within the group, particularly when **anger was reciprocated** (incident B(i)) or a **participant felt shamed** in a public setting (incident A(ii)). Whilst there were sometimes benefits to incidents being escalated to conflicts by calling attention to an underlying issue (incident A(iv)), uncontained conflicts were associated in this study with short-term difficulties and long-term splits in teams, supporting research on the negative effects of attribution on group cohesion (Cramton et al, 2007). In all types of incidents, anger was a prompt to further action; however, in conflicts this anger was often channelled towards individuals rather than towards the situation. Individuals would often respond in turn with their own frustration, leading to a feedback loop that developed into a conflict. The emotions at play in conflicts in GVTs were often complex and had surprising results. Anger and shame were common emotional reactions for participants, whilst **lingering anxiety** was common for both participants and observers. Whilst fear is an uncomfortable emotion, in the context of hidden discord it is not necessarily a positive or negative outcome. Anxiety was important during incidents and was helpful in eventually closing difficult encounters. Indeed, the sense of anxiety during conflicts was an important trigger for closing and avoiding conflicts; when anxiety was raised in a group there was often fear about the conflict being further escalated and threatening the ultimate

success of the project, leading managers, or other participants to intervene and close the conflict. Following a difficult experience of hidden discord, managers were often more vigilant and cautious about how they communicated.

If compromise was not ultimately possible, the deteriorating team atmosphere and social order would usually create **splits**, particularly where obvious sub-group fault lines were available. For disagreements, uncontained emotional reactions towards other team members, such as a long running conflict in Team B between two Southern European organisations, could lead to a victim mentality due to communication patterns that were impacted by the conflict: "*I got really angry…. Everyone knew that except for us…. And I never understood why we were the last to know*" (Bianca). Damaging misunderstandings could create suspicion against the person who misunderstood, for instance in A(ii) that the misunderstanding was due to the person being "*very clever*" and presenting "*via email*" that "*everything was fine*" when they had not done the work expected (Alessandra). When these reactions developed into mistrust and suspicion of other parties in a team, splits tended to occur.

Splits in teams were only seen in uncontained conflicts (that is, damaging misunderstandings and repressed conflicts). The study identified **four types of splits**: a) where ineffective members were ejected, b) where a partner was blamed, c) where a core group of trusted 'insiders' was formed, or d) where cultural boundaries solidified, and splits occurred on national lines. Each type of split had a corresponding fault line: the 'competent' vs the 'incompetent', the 'guilty' vs the 'innocent', the 'trusted' vs the 'untrusted', and 'foreigners' vs 'non-foreigners'. It is worth highlighting that, unlike other studies of fault lines in GVTs (Kulkarni, 2015; Hinds et al., 2014), only the final grouping related to the cultural characteristics of the participants in a team; in others the splits rarely followed national lines.

In terms of the **impact of splits**, the only split that appears to have had little negative impact was where a partner was ejected or left; in these cases, whilst the ejected members were often left demoralised, the team usually became more effective following the ejection of the team member(s) who were repositioned as incompetent. The other three types of split following conflicts created significant difficulties which often lasted the duration of a project. The second split type ('guilty party') where a partner was blamed for an incident due to attribution error (Cramton, 2002) could result in project results not being capitalised upon due to important team participants feeling unfairly castigated (Team C). The third split ('trusted insiders') tended to produce communication and interpersonal problems such as nonunderstandings and confusion (Team D). The fourth split ('foreigners') where a national/cultural schism occurred, there was pervasive mistrust where a

partner's word was never taken at face value leading to ineffective and unpleasant interactions (Team Z). This strongly supports the national faultlines GVT literature which found that faultlines were more likely to form when few nationalities were involved and each group was more nationally homogeneous (Hinds et al, 2014; Polzer, 2006) whilst adding that other types of faultlines exist and can be functional, in creating a cross-border trusted in-group or ejecting poor performers.

These splits and emotional reactions would often prompt managers and team participants to **act and restore social order** in the group after experiencing a form of 'trauma'. The drive to impose order following a split implies that teams are anxious about further schisms and the ramifications these may have for the completion of their project. The most common response to team splits was sensemaking, a process of dialogue and review to understand what happened, why, and what can be done to improve the group atmosphere (Jehn and Mannix, 2001). Sensemaking was observed both in incidents where emotions were contained and uncontained conflicts; unsurfaced incidents did not afford the opportunity for sensemaking.

For uncontained conflicts, the sensemaking process was triggered when managers or informal leaders would **create the opportunity for an open discussion** (incidents A(ii), C(i) and O(xxii)) or where the **culture of a group was to provide regular opportunities for reflection** (incidents A(iv), D(iii and iv)). Such findings support recent work on information systems design, which sees sensemaking more likely to occur when situations are noticed and bracketed, and when a team engaged in open and inclusive communication (Seidel et al, 2018). Once engaged there were few negative consequences beyond lost time and the strain involved in collectively containing volatile emotions. After particularly difficult incidents such reflections could stretch to a surprising length, such as the whole final day of a face-to-face meeting (incident A(ii)). The benefits of sensemaking included clarification of expectations (Teams A and C), a clearer leadership structure (Teams A and E), improvements in communication patterns (Teams B, C and D), and an improved working environment (Team A). Following a sensemaking path usually led to some distraction but addressing underlying issues, such as habits of irregular communication, leadership confusion, agreeing upon a common purpose, and a productive working environment. Sensemaking also engaged creativity in the group, particularly for disagreements (Chiu, 2008), for example, working through a new cross-sectoral vocabulary for terms used on an inter-disciplinary project (incident A(i)). Disagreements can increase creativity by coalescing a group's attention and encouraging group members to consider more perspectives Chiu (2008).

Methodologically, the effects discussed here were identified from critical incident interviews. Yet these events were always situated within a team context and data was collected on several incidents

within each interview. This data collection approach revealed that **disagreements and misunderstandings often acted as a feedback loop** as shown in Figure 18, where the pathway of an incident influenced the team context. For instance, a repressed conflict between rival organisations sometimes led to less overt organisational contestation *and* less intense collaboration because unsurfaced tension made working together more difficult.

Finally, which pathway an incident took was largely **influenced by the context of the incident** particularly: a) whether a group was already functioning poorly, and b) the norms and ground rules in a GVT. First, when a team was in difficulty and struggling to achieve its goals, teams were more likely to avoid, repress or blame in order to quickly pass through the incident. For instance, Team B had difficulty performing tasks on time and to quality standards. In this context, when further sources of anxiety arose, such as role confusion (incident B(iii)) and task leadership contestation (incident B(i)), confrontations were avoided or repressed to protect the team from uncontrolled conflicts and broken relationships. This allowed the group to continue functioning and avoided the potential dissolution of the team.

The symbolic interpretations of behaviour were also influenced by context, where during incidents of high emotion interpretations were made differently than they would have been outside that interaction. That is, interpretations of work practices depended on the context they took place in, a finding in line with symbolic interactionism where meaning is derived from the social interaction one has with one's fellows (Aksan et al, 2009). In Team A, a team with several Italians in leadership roles, code-switching to Italian was generally not an issue for the group. Yet during an incident of discord (A(iv)) it was interpreted as a symbol of problematic dynamics in the leadership team. This symbolism can only be interpreted using knowledge of the team and the emotion state of the participants at the time: in this case, a polite challenge became conflictual after the emerging leaders of the project had a side discussion in a language the challenger could not understand. This finding implies that there are many contingencies to general findings on work practices such as code-switching which change according to the context and participants involved.

The pathways that an incident travelled through, referred to a 'transition points' in Chapter 7, were strongly influenced by the norms held across the team, or what is referred to as the **social order of the group**. As shown in disagreements literature, what is considered acceptable in the group setting influences when a team can disagree openly (Marra, 2012). In a global virtual team the question of social order is made complex due to the technological enabled communication and differing linguistic capabilities and cultural variety. Despite this complexity, a social order does form in globally dispersed teams, and ways of communication accrete and coalesce over time. These slowly

accumulating social orders are often shaped by incidents of hidden discord, yet they also provided the context for interactions: whether it was acceptable to assign blame on only one party (making an attribution error) or whether blame was viewed as collective, whether to open disagreements by email, calls or only in face-to-face settings, and whether strongly held emotions could be expressed in the group or only with trusted colleagues. The social order of the group then had a strong determining influence on the pathways of misunderstandings and disagreements in global teams. This social order shifted over time: the act of repressing or avoiding conflict mutes some of the emotional content of the group, making it less likely that teams will discuss or openly disagree afterwards. So whilst the findings supported Cramton (2007) in showing how wrongly attributing blame is more likely in dispersed teams, this study showed how social order had a mediating influence over attribution errors, particularly communication norms and practices, as well as the longevity of the group; teams which could manage the emotional tenor of incidents better and had prior experience of navigating such incidents were less likely to be affected by attribution errors.

How can the effects of hidden discord in globally dispersed teams be managed?

In terms of managing the effects hidden discord, the difficulty for managers to emotionally contain reactions during incidents at a distance was established often in the study. For instance, of 31 disagreements only 14 were classified as 'emotionally contained'. Whilst disagreement is a healthy part of any team and emotional containment is not necessary for a team to continue functioning, the findings suggest longer standing discord, particularly where multiple events are occurring simultaneously, has a great impact on cohesion, chance of task completion, and commitment to a shared vision. This implies that whilst resolution of incidents should not always be rushed, ignoring incidents, and leaving incidents unresolved is a difficult, liminal, and uncertain state to inhabit. Inattention to the emotional state of a GVT increases anxiety and the sense of lack of control and drift and does not take advantage of the opportunities for sensemaking and improvisation created through addressing them.

Many of the negative effects of hidden discord could be prevented by skilful handling of emotions. Emotional management in GVTs does not only have implications for the wellbeing and motivation of team members but has important results on the performance and effectiveness of a team. Taking emotions seriously is important for leaders and managers, particularly emotions that can lead to withdrawal and splits within teams such as embarrassment, resentment, and shame. For some team members in Team A, the blame and denigration assigned to the marketing partner meant marketing activities were weakened with partners ignoring the marketing partner, eventually leading to a poor client evaluation of the marketing contributions from other partners. The experience of shame in

GVTs appears to lead directly to a loss of authority in a team and makes withdrawal likely, creating sub-groups which are difficult to manage.

Six approaches were identified in the study to manage hidden discord, shown within Figure 19 below.

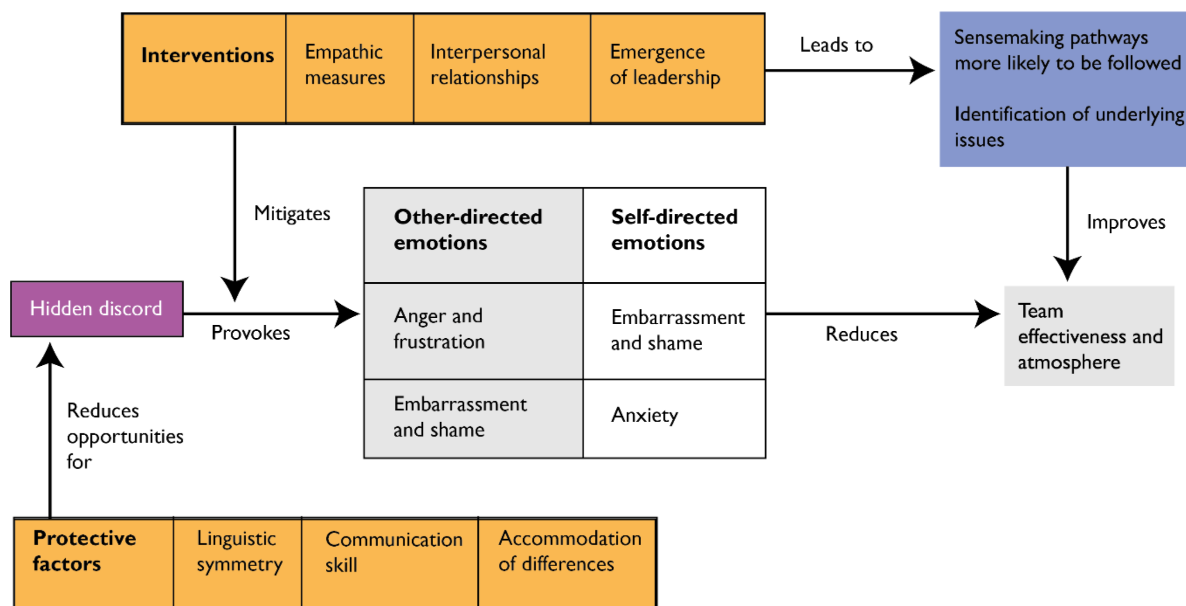

Figure 19 Managing hidden discord: intervening in and protecting against hidden discord

The study found that whilst hidden discord was often a healthy and normal part of communication, it was necessary for teams to limit the number of significant incidents that a team went through. That is, **GVTs required protective factors** (shown in the lower orange box in Figure 19) to avoid being overwhelmed. For instance, when incidents overlapped (such as incidents A(ii) and A(iii)) the strain on the team was such that the incidents took nearly six months to reveal, be collectively realised for leadership to emerge and for the incidents to be fully dealt with due to split attention and the high emotional load on a new team. The study found that it was possible to prevent significant incidents of hidden discord through team design and communication skills. To protect against hidden discord from occurring, linguistic symmetry, strong interpersonal relationships and good communication skills were helpful in mitigating, identifying, preventing hidden discord, and making a team more effective. This implies that, rather than behaviours, prevention appears to be mostly a matter of global team characteristics, the skills and relationships that exist within the group.

The first preventive characteristic was **linguistic symmetry** (Hinds et al, 2014). No incidents of misunderstandings were recalled in teams where there was little variance in language skills (that is, few team members had much lower linguistic competence than the rest of the group). Misunderstandings occurred in the context of several team members who could not skilfully design their communications, who struggled with reading and listening comprehension, or who were not sufficiently comfortable or confident to check their understanding. Where team members had relatively poor linguistic skills, their expression, comprehension, and confidence were also adversely affected by virtual contexts, affording fewer openings for clarification, and reducing their linguistic comprehension. These difficulties were limited to misunderstandings; disagreements were not adversely affected by poor linguistic skills.

The second factor, **communication skill**, was helpful particularly in managers to avoid triggering misunderstandings and hidden disagreements. Communication skill was associated in the coding with clear messaging, asking for clarification and follow up on unclear communication, backstage communications, skill in selecting and using communication technologies and finding use for new media channels. Given that misunderstandings resulted from poor communication design and lack of clarification, where team members tailored their communications to other team members and could effectively and confidently request clarification, misunderstandings were less likely to arise when key team members were skilled communicators. Disagreements were more often addressed and resolved when team members had the communication ability to sensitively address disagreements without enflaming group tensions.

In global teams, a key aspect of communication skill was to **mix communication types**. This finding implies that Media Synchronicity Theory holds useful insights into the formation of understanding and realisation of misunderstanding, particularly Lee et al's (2021) contribution of communication arrays to MST; ICT infrastructures which utilise a variety of synchronous and asynchronous communication technologies. Successful examples of managing discord were seen in incidents where manager held frequent one-to-one calls with individuals supported by meetings, allowing for the creation of both formal space and informal discussions. For instance, in teams where managers frequently used synchronous communication for individual and group calls (Beatrix and Claire) no incidents of misunderstandings were recalled despite Team B being described as a "*dysfunctional*" team who found it difficult to communicate in groups and with several team members with poor *lingua franca* skills (Beatrix). When relying upon asynchronous communication as in Incident A(ii), issues can be raised and not followed up in further communications as sustained communication is difficult without immediate responses. Whilst face-to-face meetings were more often used to reveal

and resolve discord incidents, this often led to such meetings being diverted from necessary tasks, even resulting in further emergency meetings being required at great cost to the project. Asynchronous ICTs were labour intensive, and often difficult to interpret and follow; using online workshops, regular scheduled web conferences and frequent one-to-one calls were more likely to succeed in preventing and moderating the effects of discord events.

The final preventative measure that can be taken is **accommodation of differences in a team**. Allowing room for different habits, views and linguistic levels, teams were able to adapt to differences and thereby alleviate several conditions that are associated with hidden discord, such as cultural and linguistic diversity, pre-existing disagreements, and organisational contestation. There were two main measures that assisted a team in doing this: linguistic accommodation, and co-developing communication practices. **Linguistic accommodation** (Henderson, 2005) involved paying attention to the complexity of language used in a group and developing a shared understanding for common terms, for instance by using simple vocabulary, speaking slowly, and reiterating with alternative vocabulary. Where English was the *lingua* franca, the tendency to purposefully use simple vocabulary was associated with L2 speakers rather than Native speakers. Another useful practice was to define a common vocabulary and definitions for key terms in a team, which could lead to surfacing disagreements but was helpful in the long term to generate a common understanding across a GVT.

The second cluster of measures identified in the study to accommodate differences was in **co-developing communication practices and common ground**. Whole group participation in creating common ground was viewed by several interviewees as important. According to Diana, it was valuable at the start of a globally dispersed team to collaborate in making common definitions of terms, setting the approach and framework of the project, and agreeing the problem that the project was set up to address (Diana). An aspect of this was in agreeing communication ground rules and processes. Some useful practices were highlighted, including sending documents and receiving comments in advance of meetings, having clear roles in meetings (facilitator, minute taker) and shorter more regular phone calls with a small number of participants. Finally for remote teams it was seen as important to institute communication protocols: identification of tools for file sharing, meetings and regular communication and offering induction and support for using such tools was helpful. Having both appropriate tools and practices that support the effective use of those tools can avoid unnecessary hidden discord in teams.

After hidden discord is revealed, the result would be in the balance and the **pathway discord takes was mediated by several factors** (shown in the higher orange box in Figure 19): the emotional

skillset of the participants, their interpersonal relationships and whether a leader emerged to help successfully navigate the team through the discord. These measures were constructive in de-escalating incidents, collectively making sense of incidents, and improving team atmosphere. If a team could avoid or neuter blame dynamics, by recognising that misunderstandings are a mutual responsibility in any group setting, teams could laugh off, move on, or even make sense and discuss why the misunderstanding occurred. When participants believe others are acting in bad faith, or being unfair, it can spark reciprocated anger in the misunderstood party.

The first measure, **empathy**, was associated with emotional sensitivity and calmness, acceptance of differences, and the normality of difficult moments in global work. **Emotional sensitivity** was particularly helpful with the dealing with the emotional impact of hidden discord. Often misunderstandings and disagreements could be experienced as a public shaming, and it was important for participants and managers to remain calm during such sensitive discussions and speak to the feelings experienced. It was also helpful for managers to be sensitive to different communication cultures. The ability to comprehend when discord is due to different cultural communication patterns was seen as a valuable by several interviewees from Teams A, B, D and E. This was partly due to the understanding that unexpected emotional tones in communication may be due to cultural communication patterns. Having managers with such sensitivity helps GVTs to understand messages and reduce cultural misunderstanding and unnecessary conflicts. Most resolutions of hidden discord required an element of sensitivity. Even the repression of discussion in Team B was only after a longstanding conflictual series of angry and frustrated interactions. In such entrenched conflicts, repression could be a form of managerial emotional intelligence rather than an anxious reaction to the notion of disagreeing. Empathy is also required when selecting media to address discord, for instance, when pausing a public meeting after a misunderstanding has been recognised, moving on with an agenda and resolving the misunderstanding using a private channel after the meeting (Claire). This managerial behaviour recognises that some types of emotions such as shame and embarrassment are more suitable to be expressed and handled in small synchronous groups.

The second aspect of empathy identified was in **allowing difficult emotions to be expressed and addressed**. The capacity for empathy was underscored by a recognition that strong emotions at work are not necessarily toxic and to be avoided in professional encounters but are a natural aspect of human relationships that can be worked through and are intrinsically meaningful. As part of this, it is important to allow and accept that differences of opinion will exist and coalescing upon a single viewpoint is not necessary for a team to function; pursuing uniformity can reduce creativity. Rather

than viewing all disagreements as a potential conflict, when team members can manage their frustration, a project is able to continue towards a common purpose (Eugenia). Recognition of when to compromise was another component of an emotional skillset. One of the main negative effects were splits in teams following uncontained conflicts. These were preceded by clumsy handling of strong emotions in a group and increased polarisation, with team members being unable to compromise. Longstanding disagreements were often due to participants being unable to moderate their positions, such as in incidents O(viii) and B(i). When managers and participants were sufficiently mature to recognise when to compromise, teams generally avoided splits and could creatively synthesise a new agreed position. Global teams often leave people unbalanced, in ignorance of others' understandings and opinions, and in contestation over meaning. In turn, this suggests the importance of coping with uncertainty and ignorance in such globally dispersed teams. Tolerating uncertainty implies staying within nonunderstandings and then seeking clarity rather than assuming a hunch is correct and creating a misunderstanding, and to slowly and sensitively address disagreements rather than immediately pursuing consensus.

The second factor which helped to manage significant incidents of hidden discord after they occurred was the **intimacy, depth, and strength of interpersonal relationships** (Yan and Panteli, 2011). Strong relationships mitigated blame dynamics and conflicts, making schisms in such teams less likely to occur and sensemaking cycles more easily entered. Two relationship factors supported management of discord: familiarity, and trust. **Familiarity** in GVTs was most associated with previous collaboration, Previous collaborations were highlighted as a factor which could protect against severe hidden discord. Experience of collaborating and the choice to collaborate again creates familiarity which breeds patterns of interaction: behaviour and communication styles that may have initially been shocking often become understood and accepted over lengthy collaborations. This research supports Smit's (2010) study which showed that established relationships in virtual teams could protect against damaging misunderstandings. My findings also suggested disagreements were less likely to become conflictual where team members were more familiar: affective trust and rapport (or interpersonal relationships) made compromise more likely in disagreements and blame less likely in misunderstandings.

Previous collaborations also provide a basis for **trust**, which was the second relational factor which supported managing discord in GVTs. This was in part because developing clear and honest communication was important in handling misunderstandings: without trust and rapport participants often felt personally attacked. Trust and rapport were seen as strong resources to draw upon during incidents of hidden discord and generally prevented blaming behaviour and aggression.

Whilst it was occasionally seen that trust could be taken advantage of by those who were undeserving, even undeserved trust mitigated against negative effects on team cohesion. In addition, teams with high trust and rapport were able to genially disagree with one another and it did not feel necessary to participants to avoid or hide disagreements. The presence of high levels of trust and rapport was also generally associated with more intense collaboration, which increased the volume of communication, making misunderstandings more likely to be routinely noticed and resolved.

The final factor helpful in managing hidden discord was the **emergence of leadership**. This factor generally was only relevant where existing managers were unable to resolve incidents, or even actively made a situation more conflictual (incident A(ii)). There was a tendency in hidden discord for dependency on existing leaders in a group to handle an escalating incident. Given it is recognised that virtual leadership is more challenging than when co-located (Yeow, 2014; Cousins et al, 2007), the burden of leadership during discord can create a high cognitive load at times of tension which seems often to overwhelm leaders of globally dispersed teams. Given this, examples of emerging leadership only arose after a failure of leadership; failure allowed other sources of authority to exert influence as they are needed by the group. Leaders often eventually emerge from the group to push the team towards resolution. Emerging leaders tended to be more flexible and focused on compromise, settling upon a clear solution, even when this was imperfect and not ideal. Instituting solutions that are simple and 'good enough' may help a team avoid potentially protracted discord and benefit the team by drawing a line under the incident. Several emergent leaders of global virtual teams (such as interviewees Claire and Beatrix) highlighted the utility of synchronous communication tools such as phone calls for resolving discord as it develops, and highlighted the importance of commitment, sensitivity, and rebuilding trust to resolve incidents.

Another management technique is to **predict and prepare** for discord over the life cycle of a project. In the early stages of a project team, pre-existing disagreements are common and often involved discussing and deciding upon a common vocabulary. Later in projects, questioning leadership and purpose were often expressed in task conflicts or misunderstandings. The process of working through hidden discord requires a cognitive and emotional investment in relationships which accrues over time, and the longer a collaboration continues, the less investment is needed. Knowing which types of issue are likely at different times is particularly important to understand in globally dispersed teams where there may be few indications that a misunderstanding or disagreement has occurred due to the irregular nature of communication in hybrid virtual teams.

Finally, in both the virtual teams research literature and the vocabularies of the professionals interviewed, there were few terms to describe misunderstandings, non-understandings, disagreements, and conflicts. Disagreements in interviews were often described as misunderstandings, and academic literature (Paul and Dennis, 2018; Alaiad et al, 2019) uses the negative term 'conflict' (avoided by interviewees) to describe often healthy disagreements. The distinctions in this thesis between misunderstanding and disagreement, and between disagreement and conflict may be of most use to practitioners to manage discord when it is experienced: **recognising and labelling** a disagreement/misunderstanding/nonunderstanding when it occurs is a first and crucial step to resolution.

Contribution of study

As a multidisciplinary study it is helpful to highlight the contributions this study has made to both the virtual teams and sociolinguistics fields. Five contributions are highlighted: three theoretical contributions, one methodological contribution and one practical contribution. These five contributions are summarised in Figure 20 and expanded upon in the section below.

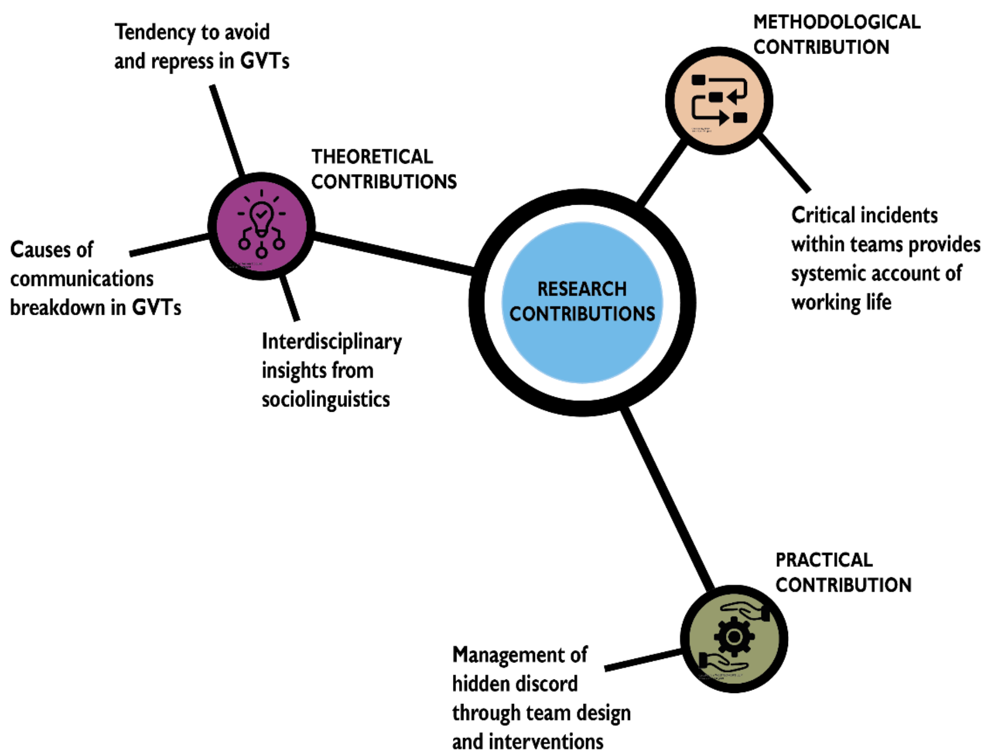

Figure 20 Research contributions: theoretical, methodological, and practical

Theoretical contributions

The three theoretical contributions primarily relate to the virtual teams and international business literature. The first theoretical contribution of the study is to reveal **the importance of unsurfaced phenomena in GVTs**. The study highlights the frequent tendency to avoid and repress difficult interactions and painful emotions in dispersed teams. This study demonstrated that these tendencies resulted in the seven identified hidden discord types: unrealised misunderstandings, contained misunderstandings, damaging misunderstandings, nonunderstandings, undiscussed disagreements, contained disagreement and repressed conflicts. This is an important contribution: whilst misunderstandings have been alluded to in several studies (Anison and Banks, 2008; Lee, 2009) they have never been the subject of an extensive study. Hidden disagreements are a new category of communication breakdown for the global teams field with previous studies often conflating the concepts of conflict and disagreement (for example, Paul and Dennis, 2018; Kankanhalli et al, 2006). By exploring a wide range of communication issues that occur below the surface, incidents which, by their nature, are difficult to identify, the study has contributed to two fields. For the sociolinguistics field, the lack of consensus on definitions of disagreement has led some to call for the development of a new analytic vocabulary for disagreements (Georgakopoulou, 2012).

The phenomena global teams avoiding and repressing incidents of discord were the result of **global teams struggling with open discussions**. Unrestrained debate on contentious topics was shown to create anxiety and further discord, requiring groups to confront their lack of cohesion. This study has shown that disagreements can be undiscussed or repressed when online and that when disagreements are expressed by non-native speakers without body language, particularly eye contact (Toomaneejinda and Harding, 2018), there is less potential for subtle opposition in disagreements and more likelihood of either conflict or communication avoidance as a result. This suggests consensus in global teams is often performative and that under surface disagreements and divergent understandings are a frequent source of unspoken frustration. Particularly for new groups, global teams in the study had weak ground rules around communication and the diverse backgrounds of participants meant their communication habits were often unaligned. The study used Goffman's (2009[1971]) concept of social order (or ground rules) to explain why newly formed global teams were more prone to emotionally charged discord events, which is a recognised gap in the field: Baralou and McInnnes (2013) called for emotional relations to be researched in virtual teams that were newly formed or had more diverse membership. The necessity for teams to form a strong social order was also related to managing anxiety and attaining psychological safety, deemed by many to be necessary for innovative cross-cultural work (Hinds et al, 2011). A robust social order,

consisting of communication ground rules and relationships, was associated with effective emotional management, which was a crucial component in managing hidden discord in global teams.

The second theoretical contribution is that the study builds upon the virtual teams literature on the **causes of communication breakdown** in globally dispersed teams. In the virtual teams field, there have been several studies on conflict (Vigier and Spencer-Oatey, 2018; Lee and Panteli, 2010; Panteli and Sockalingam, 2005), communication breakdown (Bjørn and Ngwenyama, 2009), and knowledge transfer difficulties (Welch and Welch, 2008; Klitmøller, and Lauring, 2013). Yet this is the first study to unpack in detail what happens in such situations, identify the conditions at the root of these incidents, and the different effects that these incidents have. To date, the causes of communication breakdown in virtual teams have been recognised as complex and unclear (Lockwood, 2015) and Alaiad et al (2019) recently called for further study into the causes of conflict in virtual teams. The conditions that contribute to communication breakdown have not been well understood, and the study showed that factors such as pre-existing relationships and the stage of a project can both influence the incidence and management of hidden discord, factors which Lockwood (2015) has previously called for further study on.

This is the first major study on misunderstandings, nonunderstandings and disagreements in GVTs despite discord being more likely and taking longer to resolve than co-located teams, requiring engagement, commitment and buy-in (Anison and Banks, 2008). Many conditions suggest that hidden discord should be prevalent in GVTs: technological enablement can make communication choices unintuitive, whilst cultural and linguistic diversity has been shown to make shared norms and ground rules on communication difficult to develop. Indeed, the one constant condition present for all six types of hidden discord was asynchronous communication. Yet, synchronicity was not associated in a linear manner with resolving misunderstandings and hidden disagreements; indeed, in many situations, synchronicity was helpful in identifying hidden discord yet unhelpful in managing and containing the emotions raised by such incidents. The study found that in a public crucible, the shame, anger, and anxiety participants were feeling was amplified by the group. This finding gives credence to the social nature of emotions in remote teams, that emotions are passed between others in group settings, for instance, anxiety in a group is often quickly spread and intensified when experienced in a group setting at work (Menzies Lyth, 1960). Such process factors and the multiplicity of causes of communication breakdown underly the **pathway dependency of hidden discord in global teams**: depending on contextual factors, the same types of discord can have widely differentiated outcomes.

The final theoretical contribution to the virtual teams literature has been **its interdisciplinary approach** which has brought insights from sociolinguistics into the management field. Three of these insights will be highlighted here. First, the conceptualisations of misunderstandings and disagreements from sociolinguistics are helpful to understand discord in GVTs. Misunderstandings are viewed as non-aligned understanding between a listener and a speaker, that is, subjective understandings are in contrast. This implies that 'blame' is an inappropriate response to misunderstandings because both listener and speaker exist in interdependent state; to achieve understanding the communication design of a speaker is as important as the listener's comprehension. Concepts in previous virtual teams studies used to explore adjacent issues such as 'shared understanding' or 'shared mental models' (Paul and Dennis, 2018) are not situation or communication specific. The typology of hidden discord allows for the examination of specific types of incident and add depth to our understanding of how groups (re)form common purpose in GVTs.

Clarification is not yet a central concept when studying communication in GVTs. **Clarification cycles** are therefore a useful theoretical contribution from sociolinguistics for global teams. Studies on face-to-face misunderstandings find that over 95 percent of misunderstandings engage in a 'clarification cycle' where the listener checks their understanding continuously with small queries and comments (Pietikäinen, 2018). In this context, the benefits of face-to-face interactions in forming understandings were clear to many global work practitioners as it allows much more fluent conversations: one interviewee commented that "*When you meet sometimes you're forced to communicate*" (Alessandra). This study showed that clarification cycles can be severely interrupted in remote work and when speakers and listeners do not check and recheck their understanding of an utterance or text, this results in nonunderstandings and misunderstandings. Examples from this study indicate that CMC is less amenable to check understanding, particularly for reading text and using email. The high rate of entering clarification cycles in face-to-face dyadic communication found in sociolinguistic studies appears much lower in remote group settings. The relative paucity of clarification and checking in remote work can be viewed as a primary mechanism causing knowledge transfer difficulties in GVTs, which has been a central object of study in the virtual teams field for decades (Kulkarni, 2015; Hinds et al, 2014). This research suggests that face-to-face interactions may be much more conducive to identifying misunderstandings and overcome communication breakdown in GVTs. Given the pandemic and the normalisation of remote communication in all aspects of life, the assumption that face-to-face meetings can act as a panacea to identify and resolve discord needs to be more seriously questioned.

Finally, sociolinguistics offers a more subtle and easily applicable **conception of the interface between culture and language**. In the virtual teams field, it is rare to see management scholars who also engage with sociolinguistics (Chen et al, 2006). Language is most often studied in the global teams field as an *etic* topic, focused on differences between languages rather than linguistic features (Brannen et al, 2014), and by doing so, scholarship rarely distinguishes between language and culture with one treated as a proxy for the other (Hinds et al, 2011). For studies on culture, many have adopted Hofstede's conceptualisation, which is a cognitive typology of cultures (Hofstede, 1980), where culture is viewed as rooted in cognitive differences, such as attitudes and values towards individualism, uncertainty etc., rather than seeing culture as enacted in behaviour and practices. As an alternative, this study used a practice-based conception of culture which allows for a degree of reconciliation of culture with language: culturally derived communication practices such as patterns of discourse have an intrinsic linguistic basis. In doing so, this research also enriched the national faultlines GVT literature, from seeing national faultlines (Polzer et al, 2006) to linguistic faultlines (Hinds et al, 2014) to faultlines as in-group/out-groups which emerge in reaction to discord events.

Faultlines formed in the cases in this research interacted with culture and language in a complex fashion and in reaction to characteristics, relationships, events, and work practices formed in each team, moving the GVT literature away from deterministic cognitive notions of culture. Culture in this study was conceptualised as **embedded in group practices** such as communication habits, use of communications technology, and conflict resolution. This also allowed for a conception of culture which overlapped with language, an approach derived from sociolinguistics which sees discourse (such as patterns of argumentation) as embedded in cultural-linguistic practices (de Oliveira, 2019). At the level of critical incidents, this blended approach to culture and linguistics was on display throughout: it was rare that culture or language could be clearly differentiated as contributing to hidden discord in either the accounts of interviewees or in the analysis. Instead, language and culture were often seen as embodied in communication behaviours, rather than being important due to intrinsic attitudes or identity markers. This implies that one particular benefit of focusing on micro interactions was that it allowed for a more behavioural and discourse focused approach to culture. This is potentially of great value to the global teams field as it highlights that the cultural aspect of communication is not generalisable but dependant on contingent practices; these develop due to configurations of communication practices (embodied in individuals and organisations) which gradually accrue their own social order through rules, interactions, and incidents.

Methodological contribution

The main methodological contribution of the study was the **granular focus on incidents of discord**. In using the critical incident approach and locating each incident within the system of individual teams, the analysis worked with incidents that were related to other incidents within the history of a single team. By not simply analysing incidents as separate phenomena, the embedded approach to critical incidents offered three methodological benefits which can be considered contributions to the global teams and sociolinguistic fields. This addressed several methodological gaps in for GVT research identified in Chapter 3. These included few studies which studied the micro-dynamics of communications (Kappa, 2016), and those studies of misunderstandings, nonunderstandings and disagreements in sociolinguistic studies have focused on conversation analysis (Sifianou, 2012).

First, the close analysis of individual incidents in several teams led to a deeper understanding of **micro dynamics** in GVTs. One of the key gaps in the virtual teams field is that the micro-dynamics of communications in globally dispersed teams are underexamined in diverse language settings, which makes it difficult to identify the causes and results of miscommunications (Kappa, 2016; Hinds et al, 2014; Vigier and Spencer-Oatey, 2018). Whilst several studies of communication in global teams have used cases of teams (for example, Hinds et al, 2014; Klitmøller and Lauring, 2013; Tenzer and Pudelko, 2017), previous studies have not used a critical incident approach which identified important events in the evolution of individual global teams. Using incidents with multiple perspectives and using textual data in support allowed a close examination of the conditions, pathways, management, and outcomes of hidden discord events.

Second, taking the approach of analysing incidents over several teams showed the **cyclical nature of communication difficulties over the lifetime of a project**. Because of this longitudinal and detailed approach the long-term reactions to a significant incident could be traced. As shown in Chapter 6, the chronology of events in a team showed that interactions leave a 'sediment' or a 'behavioural groove' that mean that once a behaviour has been experienced in a group it is more likely to occur again – even if the group has explicitly condemned that behaviour. Setting incidents in chronological order showed that experience of behaviour in a group shapes the options for future actions. In a phenomenon that one interviewee named "*hangovers from previous incidents*" (Alessandra), in Team A the emotional reactions of participants to a misunderstanding at the beginning of a project team during a face-to-face meeting were later mirrored in a hidden disagreement in the penultimate face-to-face meeting, despite the main participants in the discord being different and a time gap of two years. This implies the repetition of historical behaviours, a phenomenon rarely observed in other global team studies, yet with significant potential for understanding remote teams outside of an experimental context.

This insight into the cyclic nature of discord was achieved in part due to the **selection of teams** used. Team size in global team studies have been criticised for being too small and of short duration (Alaiad et al, 2019), as well as overly focused on student teams whose insights offer a great deal to the function of teams of working employees (Alaiad et al, 2019; Gilson et al, 2015). Concentrating on several inter-organisational collaborations which each lasted over two years was an important strength of this study, allowing the study to understand how irregular incidents could shape future interactions and were seeded in the design of the team. This is a significant contribution to the field as it implies that miscommunication events imprint upon teams, and that process factors such as media selection and organisational cultures are not sufficient alone to explain the communications in a team; history matters too.

Finally, this approach of seeing incidents as mutually and constantly constructed was in part due to the application of my approach to ensuring 'reliability' through the application of crystallisation of findings (Järvensivu and Törnroos, 2010). **Cross-checking intersubjective understandings** of the same incident (including written interactions) often yielded valuable insights, such as how blame could be crystalised in misunderstandings upon those with lower language proficiency in incident A(ii). This study combined critical incident interviews with documentation or records of team communications, meeting minutes and other documents allowing for a great degree of crystallisation and elaboration of incidents. This approach is also useful for sociolinguists studying hidden discord. Studies of misunderstandings and disagreements in the pragmatics field have focused data collection on conversations (Locher and Bolander, 2017), which has limited the contextual information available to researchers (Angouri and Locher, 2012). Adding contextual information has been crucial in reconciling the researcher's and the participant's characterisation of an incident and deepened the research on communication patterns in the group.

Practical contribution

The main practical contribution from the study has been to map and show how management of misunderstandings and disagreements can be achieved through team design and empathetic interventions. Recent reviews of the virtual team literature have called for further research into how leaders take up roles that resolve conflict and building understanding (Alaiad et al, 2019) and the study showed that **accommodation and empathy for others** was a key mechanism for handling discord. Empathy was particularly associated with understanding what it meant to have lower linguistic skills in a global team: in global teams, those with lower linguistic capabilities had lower professional confidence, and required more communication redundancy such as rephrasing, following up meetings quickly with meeting minutes, and one-to-one checking of comprehension. In multi-lingual teams many people require support and blaming team members for lack of

comprehension leads to negative outcomes in a global team and splits. Accommodation of team members with low English proficiency and modulation of disagreements led to what participants viewed to be skilful management of emotions and was associated with the resolution of misunderstandings and disagreements.

Poor communication design was a primary trigger for misunderstandings. More empathetic communicators gave comprehensive information to a listener when needed and checked comprehension regularly in a one-to-one manner to avoid any public shame. However, this pattern of blame, predicted by Mustajoki (2012) was not always placed upon the listener in the cases in this study. This indicates that global team dynamics are often contingent and not generalisable: when a senior manager is the listener, they have the authority to shift blame to the speaker (incident O(iv)), and when the speaker is in a position of authority if they wish to avoid blaming behaviour they may do so (incident O(xi)). These exceptions are an important contribution as they imply the act of blaming the listener, whilst being the default reaction, can be avoided, thereby improving team communication flow, and reducing splitting in teams.

The study also showed that some applications of **media synchronicity theory** (MST) may be helpful to manage incidents and increase psychological safety. Even in the virtual teams field, technology is often treated as a barrier to team relations and a background issue rather than a potential opportunity (Baralou and Mcinnes, 2013). This study emphasises the enabling features of different communication media through the application of Media Synchronicity Theory. The research also showed where MST was lacking in respect to how painful emotions can be managed in global teams; whilst a conference call can be helpful in revealing misunderstandings, it is better to have one-to-one calls to resolve disagreements and misunderstandings rather than work through these emotions in the group and risk needless conflict and public shaming.

Finally, for managers, the **sensemaking pathway** is an important avenue possible in most incidents of hidden discord. Whilst disagreements and misunderstandings could become damaging for a team, the study showed that when teams engaged sensemaking processes these could reshape and restore a group's atmosphere and turn hidden discord into an opportunity for improvement of team processes. In incidents that occur between participants with asymmetrical power relations (Avison and Banks, 2008), the importance of the sensemaking pathway, identified by Bjørn and Ngwenyama (2009) has shown in this study and has wider implications for the study of misunderstandings in sociolinguistics, as a potential avenue to redress language related power issues. This has been shown to be particularly important with regards to assigning (or refraining from) blame in misunderstandings when those with less status and linguistic ability can be given the responsibility in

a team for a misunderstanding and in the repression of conflicts. Misunderstandings are sometimes taken as an opportunity to blame an individual or a partner for the failings of the group, and relative linguistic incompetence is a strong symbolic marker that can be used to ensure that it is credible that the person with low English is at fault. Teams with the capacity to openly confront hidden discord and reflect upon why it occurred saw benefits in clarification of expectations, clearer leadership structures, improvements in communication patterns, and an improved working environment as well as avoiding damaging splits in the group.

Summary

The discussion above addressed both answers to the research questions and the contribution of the study. The conditions for discord were presented regarding the typology, showing which conditions were most relevant to both misunderstandings and disagreements. The typology clustered the seven sub-types of discord into three overall categories of discord in GVTs, whether characterised by lack of communication, emotional containment, or conflictual interactions. The effects of discord followed three pathways, with systemic issues most likely to be addressed in emotionally contained incidents, and splits most likely in conflictual interactions. Management practices were observed through prevention of discord and management. The contribution of the study was shown to be theoretical (the tendency to hide discord in GVTs, the causes of communication breakdown and insights from sociolinguistics), methodological (the use of the critical incident approach) and practical (the design and intervention in GVTs to manage hidden discord).

Chapter 8 Conclusion

This thesis has concerned specific types of communication breakdown in globally dispersed teams, analysing incidents of hidden discord. To date, most research on GVTs has focused on the organisational level, at the level of conceptual inquiries into topics from trust, knowledge sharing, leadership, and diversity, rather than micro-level interactions within virtual teams. Such events are shown in the thesis to be ripe for application of theoretical constructs such as trust and leadership and offer convincing answers for the pathways that a team may take during a project. The type of events chosen - misunderstandings and hidden disagreements - have had little prior research, despite the presence of numerous factors that make hidden discord more likely in such teams, from language asymmetries and cultural differences to technological mediation and differing communication habits.

This study investigated the question “How does hidden discord impact global virtual teams?” with sub-questions on conditions where hidden discord appeared, the types of hidden discord in GVTs and management of hidden discord. These questions were answered using a critical incident approach through semi-structured interviews and documentary evidence including global team email interactions. Through 29 interviews with experienced global work professionals, 54 critical incidents were identified, classified, and analysed. Analysis occurred at both the individual interviewee level and incident level, using open and axial coding and an abductive analytical approach that incrementally generated theory alongside data collection and analysis.

This research found that when remote it is more difficult for team members to enter cycles of clarification, a process where a listener questions a hunch they have about a statement (Pietikäinen, 2018); such cycles allow participants to continuously calibrate their understanding (Bavelas et al, 2017). The reduced ability in GVTs to confirm and clarify in communication, as well as the reduced capacity to use non-verbal communication to build alliances during disagreements (Toomaneejinda and Harding, 2018) has a deleterious effect on the capacity of a team to quickly notice and constructively react to misunderstandings and hidden disagreements. These mechanisms lead to many significant discord events that must be managed at a distance, with each of the six selected GVTs identifying between three and five significant incidents.

This study identified and categorised incidents of hidden discord, presenting six sub-categories of hidden discord, including ‘undiscussed disagreements’ and ‘repressed conflicts’ which have not previously been identified in the literature on virtual teams despite appearing both common and impactful. The detailed accounts of these incidents revealed that when the emotional impact of incidents was not contained effectively, teams became less efficient and had less common ground,

leading to splits in the teams, reducing trust, cohesion, and authority of existing leaders. The study found several protective factors against hidden discord, including communication skill and previous collaborations, and possible interventions such as creating common vocabulary, toleration of difference, empathic measures, and frequent synchronous communication. The effect of this potential for alternative pathways meant that there was a great divergence of outcomes within each category of hidden discord. In addition, whilst interviewees were asked to identify misunderstandings, most incidents were classified as disagreements, often due to presenting a contest (disagreement) as erroneous information exchange (misunderstanding), showing how, *post hoc*, a GVT can use discourse to subvert challenges to the status quo. When teams are able to avoid reframing, repressing, or ignoring, and instead use compromise and sensemaking, this creates opportunities for global teams to resolve underlying difficulties.

These final sections place the findings in context, starting with their limitations, before discussing suggestions for further study in the area and personal reflections on conducting the research.

Limitations of study

Whilst the research methodology addressed several concerns with virtual teams studies by focusing on long term teams of professionals and using critical incidents, there were several limitations to the study.

First, it was often difficult to confidently categorise any incident. As noted in Chapter 4, ontologically, certainty is not possible in intersubjective incidents, even with multiple perspectives. This uncertainty is a recognised issue in sociolinguistics, where it is rarely clear if a misunderstanding resulted in shared understanding, nonunderstanding, or reduced understanding (Verdonik, 2010); the categorisation can look very difficult depending on who is asked. Further, the detailed analysis of Team A showed some incidents of misunderstanding were framed as distrustful behaviour (incident A(ii)), and disagreements were rather deliberately framed as misunderstandings (incident A(iv)). Research participants were often unwittingly unreliable narrators, who did not have a full picture of a misunderstanding, leading to Rashomon effects which were often difficult to parse in the analysis phase. This means that whilst the typology is likely to be reliable as a system for understanding the pathways and contours of hidden discord, the specific categorisation of individual incidents is likely to be erroneous in many cases due to giving credence to unreliable participants or insufficient data.

This uncertainty was further compounded by the research methods which were not live transcriptions of misunderstandings and disagreements, but incidents recalled through retrospective interviews. Indeed, much of the data relied upon the memory of interviewees. Some interviews occurred almost five years after the incidents in question and recall was often poor, leading to lack

of detail in some cases; some incidents remembered by some team members were forgotten by others. This was shown most starkly in Chapter 6 which focused on Team A. The cross-examination of interview data with email, documents and client feedback showed that the recollections of team members in some instances were misleading, particularly where an individual was blamed for a misunderstanding. This showed that interviewee recollections were subject to faulty memory, deciding (purposefully or not) upon an 'accepted story' for an incident and scapegoating. The detailed analysis in Chapter 6 was not repeated for the other 50 incidents due to less data (detailed documentary evidence was rarely available in other teams) and lack of time. This makes the reliability of the findings questionable and subject to narrative biases which may have lent additional weight to relatively trivial incidents.

Second, whilst I was often involved in the teams in question, I rarely directly observed the critical incidents that were identified. Alongside the difficult in recollection and cognitive biases these recollections were subject to, this made detailed analysis of incidents, particularly topics such as the triggers for a misunderstanding or disagreement particularly difficult and inexact. This means that whilst the typology is relatively robust across cases, the detailed explanations for mechanics, conditions and effects are subject to data quality issues, where interviewees own perspectives and document availability often thinly detailed the incidents in question.

Third, the analysis was also subject to my own situated role in the teams, with Team Z the only team I was not part of at some point in the project. Undoubtably, despite practicing reflexivity, my own recollections of events had a substantial influence upon the framing of the research, the categorisation of incidents and analysis of events, as well as the credibility I gave different accounts. Whilst this familiarity was in some ways a resource for the study (in that I was able to use established relationships with ex-colleagues who generally knew and trusted me and were able to be open and vulnerable discussing painful emotions), my own memories and opinions will have led to certain conclusions being reached.

Fourth, the type of teams included in the study may be relatively rare. The teams were mostly grant funded research and development projects, and likely to be more cooperative than competitive due to the funding mechanism and topic areas. These team were also purposefully multi-national and diverse due to European Union funding and were often both internally and externally evaluated. Research and development teams are likely to have characteristics where they can reflect upon and learn during the process of work delivery. In other collaborations, opportunities for sense-making may be less common and so the learning from this study may have limited transferability to private sector collaborations.

Finally, the research took place before the COVID-19 pandemic. Many virtual work practices, norms of remote working, and ICT tools used have shifted in the past two years, perhaps fundamentally. For instance, most of the interviews for the research used Skype voice calls; Skype has now declined in use, and web-conferencing calls without video have become almost deviant. Shifts to new ways of working and the emergence of IM chat functions using Slack or MS Teams are likely to change how disagreements and misunderstandings occur in teams, and perhaps their prevalence and importance.

Further research

The global pandemic occurred only a few months after my primary data collection ended and the clearly accelerated the move towards remote working practices. New affordances for collaboration have been taken advantage of when virtual interactions were required (Waizenegger et al, 2020). At the same time, other research has suggested that 'digital scars' were formed during the pandemic, where problematic uses of technologies such as a shift from building relationships to becoming predominantly utilitarian, may well remain the norm once the pandemic is over (Marabelli et al, 2021). Recent research has shown that in the absence of face-to-face meetings, digital tool selection and utilisation has become more sophisticated. However, employees still struggle to balance task discussions, overall process discussions and relationship building (Whillans et al, 2021). Given that the experience of COVID forced many into new ways of working (Aroles et al, 2021) have GVTs become more familiar, skilful, and capable of dealing with hidden discord? Has lack of face-to-face time meant that more misunderstandings have remained unnoticed, and more disagreements been avoided and repressed? What would a sustained shift away from face-to-face meetings mean for recognition and resolution of discord in teams?

One difficulty throughout the analysis was when incidents appeared to be neither misunderstandings nor hidden disagreements but the result of actual deceit, lying and hiding the reality of situations. This may have occurred in some of the incidents labelled misunderstandings yet sufficient evidence was rarely available to completely identify deceit. In the event, identification of deceitful behaviour was not central to the research objectives and was beyond the scope of this work. Yet whilst trust and the development of trust in GVTs has been frequently researched (Altschuller and Benbunan-Fich, 2013; Goh and Wasko, 2012; Lowry, et al, 2010; Chua et al, 2009), studies have not addressed critical incidents of lying and distrustful behaviour. This is important to research as VT research offers little insight into the incidence of deceit, a behavioural type which is easier to mask when at a distance.

Another area for further research is emotional management in remote teams. The study identified non-linear, complex emotional chain reactions which occurred during misunderstandings and disagreements, which were vital in understanding the impact of hidden discord despite not being the initial focus of this study. It appeared that some common reactions such as anger that led to blaming other team members may have had deeper roots. For instance, for some managers anger may have been a psychological defence against anxiety (Menzies Lyth, 1960): upon realising a misunderstanding, they may have grown anxious about the project failing, how failure would have reflected upon them in their own organisation, or simply anxious about the knock-on effects on their own workload. Further research which unpacks emotional reactions to discord in remote teams and, crucially, how these emotions can spread across distant team members would be welcome. Such research would fit recent developments in the field such as the recent Special Issue on 'Emotions in the Digitalised Workplace' in Information Technology & People.

Another area for further research is intersubjectivity and the partial nature of misunderstandings and disagreements, where only a select sub-group were usually aware of an incident. For instance, in incident A(iv), only Isabella was experiencing a disagreement over leadership and team purpose: for others, a misunderstanding over a task was taking place. Given that Isabella was feeling tense and in an untenable situation, her behaviour felt unfathomable to many other team members. This was reflected in that in a sensemaking session, the main solutions were in response to a partially understood issue: how to ensure better team ground rules were kept to in the future rather than resolving the hidden contest over the project purpose. This example shows that further methodologies on events such as discord should examine multiple perspectives, and that partial readings are likely to often present comfortable narratives, rather than rich, legitimate, and complex reactions to team processes.

Further research could also be undertaken on the tendency for splits and incoherence when team size increased. There was a noted tendency to disagree in large diverse groups, and for virtual team challenges around communication to be experienced. Such groups had a greater tendency towards politicisation and factional splits, particularly in multi-sector collaborations (Dabir, Claire). This tendency was also reflected when teams met in plenary rather than as subgroups. Group size then appears to have a strong effect on communication and group dynamics, where dyads, triads, small groups, and large groups all have different technologies, bonds, and emotional dynamics (Simmel, 2010[1908]). The clearest case of sub-group formation was also found in Team Z, a smaller team and also the team with the least partners (two), a predictor for faultline and subgroup development (Polzer et al, 2006). Group size was continually important in the study as a cross-cutting concern,

particularly upon revelation of an incident of hidden discord where a large group often led to uncontrollable group emotions except where the group had strong interpersonal bonds. However, group size was not a central concern in this research and should be subject for further focused study.

This research also highlighted some methodological limitations of sociolinguistic studies which can struggle to capture context (Sifianou, 2012). Indeed, sociolinguistics studies usually focus on conversation analysis without follow on interviews and this can lead to a shallow understanding of discord which relies much on the unreliable assumptions of the researcher. For Sifianou, "Disagreement should be understood not as a single speech act but as a situated activity, interactionally managed by interlocutors, an activity which may have deeper roots and extend beyond the current activity in subtle ways not always discernible to overhearers or the analyst" (Sifianou, 2012: 1557). Whilst future management studies would benefit from the inclusion of observation and conversation analysis, sociolinguistic studies could also benefit from interviews and documentary analysis to support interpretations from conversation analysis.

The combination of sociolinguistics and management also offers insights to sociolinguistics on how misunderstandings occur at a distance and within teams. A benefit of this interdisciplinary study is that research from management studies can lend insight to the sociolinguistics field because the field of study in global teams, being remote and technologically mediated, is one not seen in sociolinguistics research. Whilst disagreements research has been conducted in the online space, this has been restricted to social media (Georgakopoulou, 2012) and internet communities (Graham, 2007). Sociolinguistic studies of misunderstandings (such as Pietikäinen, 2018) have focused on face-to-face interactions, which give little indication on whether misunderstandings would be more frequent when using CMC. Therefore, whilst multi-lingual and multi-cultural interactions have been researched, the specific challenges relating to remote teams on misunderstandings – such as use of technology, group size, control, and interpersonal relationships – has been largely unexplored to date as have hybrid contexts where online/offline boundaries are blurred (Locher and Bolander, 2017). Given the trend toward remote relationships during the COVID-19 pandemic, this topic is more relevant than ever to sociolinguistics.

Reflections

After each interview I recorded my own personal feelings and insights from the interview, I have attempted to follow reflexive practice during the research process, and this section contains my reflections on the research.

The issue that led to the most self-examination throughout the research was my relationship to the data and the research participants. I was a member of most of the teams under examination. My

role in these teams and any level of involvement differed between project teams: sometimes I was an internal evaluator, other times as another team member, sometimes holding both roles together. This meant that I had pre-existing relationships with nearly all interview participants, which helped build openness, familiarity, and honesty, especially as the incidents were usually years past and often sensitive or embarrassing. Yet I was also aware, especially in early interviews, of how I thought of these colleagues, who I was sympathetic with, and what I knew of the incidents described. I attempted to bring my voice into the interview in these situations, to carefully test my impressions. Without doing so, my own assumptions would have likely been unchallenged, yet I cannot pretend that some of my opinions, formed years prior to the interview, coloured my analysis and the credence I gave some answers. On balance, despite this 'bias' I felt it was a great benefit to have prior knowledge: without my own personal experience, many of the incidents would have felt impossible to follow, analyse and present in this research.

One reason why interviews often felt difficult to follow was technical issues with ICT. With the interviews taking place almost exclusively over my personal Skype account, using a free recording software and no professional microphone, audio issues were common in many interviews, most often that respondents could hear themselves. In some cases the issue was so severe that the call was restarted three or four times, and the audio recording was almost unusable. This exemplified that CMCs in virtual teams were often frustrating; a constant background emotion. Also, the task of the researcher in this field is as often to interpret a muffled word spoken by a non-native speaker that changes the entire context of a sentence, and I am by no means confident I always got this interpretation right. In this way the themes of the interview were often reflected in the process and I was aware of the importance of checking my own understanding throughout.

Part of the disadvantage for interviewees with relatively poor English was due to my own identity as a white, British, male, largely monolingual researcher. This must have limited my perception of the dynamics of misunderstanding. Being a native English speaker myself, conducting interviews when it was relatively common for interviewees to mention that native speakers exacerbated misunderstandings, must have influenced how forthcoming participants were on the topic of being a non-native speaker, whether they wished to emphasise or play down the extent to which native speakers created issues of understanding. In addition, an extensive one-to-one interaction with a native English speaker during the interview would have been a rare occurrence for many research participants and perhaps an intimidating one given how it stretched their linguistic and communication abilities. Being a male researcher often felt significant as I was aware that some interviewees, most often older men, were uncomfortable with being open and vulnerable, and

admitting their emotional state during these incidents to another male. I was also aware of how often women managed their presence, admitted their weaknesses, and could communicate feelings, even emotions that were difficult to share such as shame.

During the analysis, the most stimulating experience was the discovery of incidents with Rashomon effects in Team A. The perception of these same events from different perspectives was often incompatible and difficult to make sense of until the (triumphant) cross-checking with email, meeting minutes and reports. To me this exemplified the benefit of the multi-perspective critical incident approach when looking at discord: each participant was presenting a view that coincided with their own self-view. Interviewees were unknowingly partial and their memories were affected by the emotion they felt during the incident even when they were open and honest. There was a temptation to imagine that I had detected what had 'really' happened during the incident, yet my own assumptions and hypotheses also influenced the data analysis.

Finally, in terms of personal struggles, during the PhD I have fathered a child, and in the past two years often been under lockdown. Given that my habit when writing is to use libraries and cafes, the sense of strain and lack of creativity when I needed it most has been a source of continuous challenge. This undoubtably influenced the quality of my analysis, from the slowing pace (which means my first interviews are four years ago), to using NVivo for qualitative analysis when my preference is to use paper whenever possible. This personal struggle to embrace home working and to avoid face-to-face interactions has been repeated across the world and made CMC in teams more and more common and accepted. Indeed, since I began writing up, most of my interactions with colleagues have been computer mediated. Whilst this has meant interest in understanding remote teams is higher, the culture of online interactions has perhaps changed since the incidents that I discuss in this thesis. For instance, nearly all my interviews were conducted on Skype without video. Yet since March 2021, non-video calls have become increasingly rare, and even email has become merely another media form with the increased use of synchronous text and video platforms such as MS Teams and Slack. This collective experience has accelerated adoption and the rate of change in global team working.

Bibliography

Aksan, N., Kısac, B., Aydın, M. and Demirbuken, S., 2009. Symbolic interaction theory. *Procedia-Social and Behavioral Sciences*, *1*(1), pp.902-904.

Alaiad, A., Alnsour, Y. and Alsharo, M., 2019. Virtual teams: Thematic taxonomy, constructs model, and future research directions. *IEEE Transactions on Professional Communication*, *62*(3), pp.211-238.

Alzahrani, A.A., 2020. Disagreement Strategies used by Speakers of English as a Lingua Franca in Business Meetings. *Advances in Language and Literary Studies*, *11*(3), pp.46-56.

Altschuller, S. and Benbunan-Fich, R., 2013. The pursuit of trust in Ad hoc virtual teams: How much electronic portrayal is too much? *European Journal of Information Systems*, 22(6), pp.619–636.

Alvesson, M & Ashcraft, KL 2012, Interviews. in G Symon & C Cassell (eds), *Qualitative Organizational Research: Core Methods and Current Challenges*. London: SAGE.

Alzahrani, A.A., 2020. Disagreement Strategies used by Speakers of English as a Lingua Franca in Business Meetings. *Advances in Language and Literary Studies*, *11*(3), pp.46-56.

Anderson, C. and Galinsky, A.D., 2006. Power, optimism, and risk-taking. *European journal of social psychology*, *36*(4), pp.511-536.

Anderson, A.H., McEwan, R., Bal, J. and Carletta, J., 2007. Virtual team meetings: An analysis of communication and context. *Computers in Human Behavior*, *23*(5), pp.2558-2580.

Andres, H.P., 2012. Technology-mediated collaboration, shared mental model and task performance. *Journal of Organizational and End User Computing (JOEUC)*, *24*(1), pp.64-81.

Andrews, T., 2012. What is social constructionism. *Grounded theory review*, *11*(1), pp.39-46.

Angouri, J. and Locher, M.A., 2012. Theorising disagreement. *Journal of pragmatics*, 44(12), pp.1549-1553.

Aroles, J., Cecez-Kecmanovic, D., Dale, K., Kingma, S.F. and Mitev, N., 2021. New ways of working (NWW): Workplace transformation in the digital age. *Information and Organization*, 31(4), p.100378.

Asatiani, A. and Penttinen, E., 2019. Constructing continuities in virtual work environments: A multiple case study of two firms with differing degrees of virtuality. *Information Systems Journal*, 29(2), pp.484-513.

Asatiani, A., Hämäläinen, J., Penttinen, E. and Rossi, M., 2021. Constructing continuity across the organisational culture boundary in a highly virtual work environment. *Information Systems Journal*, 31(1), pp.62-93.

Astley, W.G. and Zammuto, R.F., 1992. Organization science, managers, and language games. *Organization Science*, 3(4), pp.443-460.

Atuahene-Gima, K. and Li, H., 2002. When does trust matter? Antecedents and contingent effects of supervisee trust on performance in selling new products in China and the United States. *Journal of Marketing*, *66*(3), pp.61-81.

Au, Y. and Marks, A., 2012. "Virtual teams are literally and metaphorically invisible" Forging identity in culturally diverse virtual teams. *Employee Relations*, *34*(3), pp.271-287.

Avison, D. and Banks, P., 2008. Cross-cultural (mis) communication in IS offshoring: understanding through conversation analysis. *Journal of Information Technology*, *23*(4), pp.249-268.

Baba, M.L., Gluesing, J., Ratner, H. and Wagner, K.H., 2004. The contexts of knowing: Natural history of a globally distributed team. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, *25*(5), pp.547-587.

Bailey, D.E., Leonardi, P.M. and Barley, S.R., 2012. The lure of the virtual. *Organization Science*, *23*(5), pp.1485-1504.

Baralou, E. and Mcinnes, P., 2013. Emotions and the spatialisation of social relations in text-based computer-mediated communication. *New Technology, Work and Employment*, 28(2), pp.160–175.

Barley, S.R., 2011. Signifying Institutions. *Management Communication Quarterly*, *25*(1), pp.200-206.

Barley, S.R., Meyerson, D.E. and Grodal, S., 2011. E-mail as a source and symbol of stress. *Organization Science*, *22*(4), pp.887-906.

Barnes, S.A., 2012. The differential impact of ICT on employees: Narratives from a hi-tech organisation. *New Technology, Work and Employment*, 27(2), pp.120–132.

Barner-Rasmussen, W. and Björkman, I., 2005. Surmounting interunit barriers factors associated with interunit communication intensity in the multinational corporation. *International Studies of Management & Organization*, *35*(1), pp.28-46.

Bartel-Radic, A., Moos, J.C. and Long, S.K., 2015. Cross-Cultural Management Learning Through Innovative Pedagogy: An Exploratory Study of Globally Distributed Student Teams. *Decision Sciences Journal of Innovative Education*, 13(4), pp.539–562.

Bartelt, V.L. and Dennis, A.R., 2014. Nature and nurture: The impact of automaticity and the structureation of communication on virtual team behavior and performance, *MIS Quarterly*, 38(2), pp.521–538.

Baškarada, S.(2014). *Qualitative case studies guidelines. The Qualitative Report*, *19*(40), pp.1-25.

Bauman, Z., 1989. *Modernity and the Holocaust*, Cambridge: Polity Press.

Bauman, Z., 2013. *Liquid modernity*. London: John Wiley & Sons.

Bavelas, J., Gerwing, J. and Healing, S., 2017. Doing mutual understanding. Calibrating with micro-sequences in face-to-face dialogue. *Journal of Pragmatics*, *121*, pp.91-112.

Bazzanella, C. and Damiano, R., 1999. The interactional handling of misunderstanding in everyday conversations. *Journal of Pragmatics*, *31*(6), pp.817-836.

Bieber, F., 2018. Is nationalism on the rise? Assessing global trends. *Ethnopolitics*, 17(5), 519-540.

Belbin, R.M., 2004 [1981]. *Management Teams: Why They Succeed Or Fail*. Routledge.

Beldad, A. and Steehouder, M., 2012. Not that button but the other: Misunderstanding and non-understanding in helpdesk encounters involving nonnative English speakers. *Technical communication*, *59*(3), pp.179-194.

Benet-Martínez, V., Leu, J., Lee, F. and Morris, M.W., 2002. Negotiating biculturalism: Cultural frame switching in biculturals with oppositional versus compatible cultural identities. *Journal of Cross-cultural psychology*, *33*(5), pp.492-516.

Benjamin, P. et al, 2015. Is Trust Always Better than Distrust? The Potential in Short-Term Decision-Making. *Group Decision and Negotiation*, 24(4), pp.723–752.

Benne, K.D. and Sheats, P., 1948. Functional roles of group members. *Journal of social issues*, *4*(2), pp.41-49.

Berg, R.W., 2012. The anonymity factor in making multicultural teams work: Virtual and real teams. *Business Communication Quarterly*, *75*(4), pp.404-424.

Berger, P. and Luckman, T., 1966. The social construction of knowledge. *New York: Doubleday. Blase, J.(1986). Socialization as humanization: One side of becoming a teacher. Sociology of Education*, *59*, pp.100-1.

Bjørn, P. and Ngwenyama, O., 2009. Virtual team collaboration: Building shared meaning, resolving breakdowns and creating translucence. *Information Systems Journal*, 19(3), pp.227–253.

Blommaert, J., 2015. Pierre Bourdieu: Perspectives on language in society. In *Handbook of pragmatics 2015 installment* (pp. 1-16). John Benjamins.

Boh, W.F., Ren, Y., Kiesler, S. and Bussjaeger, R., 2007. Expertise and collaboration in the geographically dispersed organization. *Organization Science*, *18*(4), pp.595-612.

Bordia, S. and Bordia, P., 2015. Employees' willingness to adopt a foreign functional language in multilingual organizations: The role of linguistic identity. *Journal of International Business Studies*, 46(4), pp.415-428.

Bourdieu, P., 1990. *In other words: Essays towards a reflexive sociology*. Stanford: Stanford University Press.

Bourdieu, P., 1998. 41. Distinction and the Aristocracy of Culture. *Distinction: A Social Critique of the Judgment of Taste*, pp.431-441.

Bourdieu, P., 1999. Scattered remarks. *European Journal of Social Theory*, *2*(3), pp.334-340.

Bourdieu, P., 2000. *Pascalian meditations*. Stanford University Press.

Brannen, M.Y. and Thomas, D.C., 2010. Bicultural Individuals in Organizations. *International Journal of Cross Cultural Management*, 10(1), p.5-16.

Brannen, M.Y., Piekkari, R. and Tietze, S., 2014. The multifaceted role of language in international business:: Unpacking the forms, functions and features of a critical challenge to MNC theory and performance. *Journal of International Business Studies*, *45*(5), pp.495-507.

Brennan, S.E. and Schober, M.F., 2001. How listeners compensate for disfluencies in spontaneous speech. *Journal of Memory and Language*, 44(2), pp.274-296.

Briñol, P., Petty, R.E., Valle, C., Rucker, D.D. and Becerra, A., 2007. The effects of message recipients' power before and after persuasion: a self-validation analysis. *Journal of personality and social psychology*, *93*(6), p.1040.

Brooks, JoAnn, 2007, Understanding Virtuality: Contributions from Goffman's "Frame Analysis", *The School of Information Studies Faculty Scholarship*. Paper 87.

Bryant, S.M., Albring, S.M. and Murthy, U., 2009. The effects of reward structure, media richness and gender on virtual teams. *International Journal of Accounting Information Systems*, *10*(4), pp.190-213.

Canagarajah, S., 2007. Lingua franca English, multilingual communities, and language acquisition. *The modern language journal*, *91*, pp.923-939.

Carlile, P.R., 2004. Transferring, translating, and transforming: An integrative framework for managing knowledge across boundaries. *Organization science*, *15*(5), pp.555-568.

Carlson, J.R. and Zmud, R.W., 1999. Channel expansion theory and the experiential nature of media richness perceptions. *Academy of management journal*, *42*(2), pp.153-170.

Cascio, W.F., 2000. Managing a virtual workplace. *Academy of Management Perspectives*, *14*(3), pp.81-90.

Cascio, W.F. and Shurygailo, S., 2003. E-leadership and virtual teams. *Organizational Dynamics*, *31*(4), pp.362-362.

Chamakiotis, P. and Panteli, N., 2017. Leading the creative process: the case of virtual product design. *New Technology, Work and Employment*, *32*(1), pp.28-42.

Chang, H.J., 2014. *Victorian Japan in Taiwan: Transmission and Impact of the 'Modern' upon the Architecture of Japanese Authority, 1853-1919* (Doctoral dissertation, University of Sheffield).

Chao, G.T. and Moon, H., 2005. The cultural mosaic: A metatheory for understanding the complexity of culture. *Journal of applied Psychology*, *90*(6), p.1128.

Charles, M. and Marschan-Piekkari, R., 2002. Language training for enhanced horizontal communication: A challenge for MNCs. *Business communication quarterly*, *65*(2), pp.9-29.

Chattopadhyay, P., George, E. and Shulman, a. D., 2008. The Asymmetrical Influence of Sex Dissimilarity in Distributive vs. Colocated Work Groups. *Organization Science*, 19(4), pp.581–593.

Chell, E., 2004. 5) Critical Incident Technique. *Essential guide to qualitative methods in organizational research*, pp.45-60.

Chen, S., Geluykens, R. and Choi, C.J., 2006. The importance of language in GVTs: A linguistic perspective. *Management International Review*, *46*(6), p.679.

Cheng, X., Fu, S., Sun, J., Han, Y., Shen, J. and Zarifis, A., 2016. Investigating individual trust in semi-virtual collaboration of multicultural and unicultural teams. *Computers in Human Behavior*, *62*, pp.267-276.

Cheng, X., Liu, J., Huang, J., Yan, X. and Han, Y., 2015. Investigating Trust Factors in Global Virtual Collaboration: A Case Study of a Manufacturing Company in China. In *System Sciences (HICSS), 2016 49th Hawaii International Conference on* (pp. 697-706). IEEE.

Cheng, X., Yin, G., Azadegan, A. and Kolfschoten, G., 2016. Trust evolvement in hybrid team collaboration: a longitudinal case study. *Group Decision and Negotiation*, *25*(2), pp.267-288.

Chew, K.S., 2005. An investigation of the English language skills used by new entrants in banks in Hong Kong. *English for Specific Purposes*, *24*(4), pp.423-435.

Chi, S.P., Chang, Y.Y. and Tsou, C.M., 2012. The effect of team characteristics and communication environment to the virtual team performance. *International Journal of Networking and Virtual Organisations*, *10*(2), pp.137-152.

Chiasson, M. and Panteli, N., 2008. Is everything virtuality? Exploring the boundaries of the topics. In *Exploring Virtuality Within and beyond Organizations* (pp. 286-291). Palgrave Macmillan, London.

Chidambaram, L. and Jones, B., 1993. Impact of communication medium and computer support on group perceptions and performance: A comparison of face-to-face and dispersed meetings. *MIS quarterly*, pp.465-491.

Chiu, M.M., 2008. Effects of argumentation on group micro-creativity: Statistical discourse analyses of algebra students’ collaborative problem solving. *Contemporary educational psychology*, *33*(3), pp.382-402.

Choi, S.Y., Lee, H. and Yoo, Y., 2010. The impact of information technology and transactive memory systems on knowledge sharing, application, and team performance: a field study. *MIS Quarterly*, pp.855-870.

Chua, R.Y., Morris, M.W. and Ingram, P., 2009. Guanxi vs networking: Distinctive configurations of affect-and cognition-based trust in the networks of Chinese vs American managers. *Journal of International Business Studies*, *40*(3), pp.490-508.

Chudoba, K.M., Wynn, E., Lu, M. and Watson-Manheim, M.B., 2005. How virtual are we? Measuring virtuality and understanding its impact in a global organization. *Information systems journal*, *15*(4), pp.279-306.

Church-Morel, A. and Bartel-Radic, A., 2014, May. " Not all multilingual teams are created equal": Conceptualizing Language Diversity Management. In *XXIIIe Conférence de l'Association Internationale de Management Stratégique (AIMS)*.

Ciriello, R.F., Richter, A. and Schwabe, G., 2019. The paradoxical effects of digital artefacts on innovation practices. *European Journal of Information Systems*, *28*(2), pp.149-172.

Cohen, S.G. and Bailey, D.E., 1997. What makes teams work: Group effectiveness research from the shop floor to the executive suite. *Journal of management*, *23*(3), pp.239-290.

Cooren, F., Kuhn, T., Cornelissen, J.P. and Clark, T., 2011. Communication, organizing and organization: An overview and introduction to the special issue. *Organization Studies*, 32(9), pp.1149-1170.

Coppola, N.W., Hiltz, S.R. and Rotter, N.G., 2004. Building trust in virtual teams. *IEEE transactions on professional communication*, *47*(2), pp.95-104.

Cousins, K.C., Robey, D. and Zigurs, I., 2007. Managing strategic contradictions in hybrid teams. *European Journal of Information Systems*, 16(4), pp.460–478.

Cramton, C., 2001. The mutual knowledge problem and its consequences for dispersed collaboration. *Organization science*, *12*(3), pp.346-371.

Cramton, C.D., Orvis, K.L. and Wilson, J.M., 2007. Situation invisibility and attribution in distributed collaborations. *Journal of management*, *33*(4), pp.525-546.

Cramton, C., and Hinds, P., 2005. Subgroup dynamics in Internationally Distributed Teams: Ethnocentrism or Cross-National Learning?. *Research in Organization Behavior*, *26*, pp.231-263.

Crisp, C.B., and Jarvenpaa, S.L., 2013. Swift Trust in Global Virtual Teams. *Journal of Personnel Psychology*, *12*(1), pp.45-56.

Cross, R., and Cummings, J.N., 2004. Tie and network correlates of individual performance in knowledge-intensive work. *Academy of management journal*, *47*(6), pp.928-937.

Culpeper, J., Bousfield, D. and Wichmann, A., 2003. Impoliteness revisited: With special reference to dynamic and prosodic aspects. *Journal of pragmatics*, *35*(10-11), pp.1545-1579.

Cummings, J.N. and Cross, R., 2003. Structural properties of work groups and their consequences for performance. *Social networks*, *25*(3), pp.197-210.

Cummings, J.N. and Haas, M.R., 2012. So many teams, so little time: Time allocation matters in geographically dispersed teams. *Journal of Organizational Behavior*, *33*(3), pp.316-341.

Cummings, J.N. and Dennis, A., 2018. Virtual First Impressions Matter: The Effect of Enterprise Social Networking Sites on Impression Formation in Virtual Teams. *MIS Quarterly*, *42*(3), pp.697-717.

Cunliffe, A., 2004, On Becoming a Critically Reflexive Practitioner, Journal of Management Education 28(4):407-426.

Cunliffe, A., 2011. Crafting qualitative research: Morgan and Smircich 30 years on. *Organizational Research Methods*, *14*(4), pp.647-673.

Daft, R.L. and Lengel, R.H., 1986. Organizational information requirements, media richness and structural design. *Management Science*, 32(5), pp.554-571.

Daim, T.U., Ha, A., Reutiman, S., Hughes, B., Pathak, U., Bynum, W. and Bhatla, A., 2012. Exploring the communication breakdown in global virtual teams. *International Journal of Project Management*, *30*(2), pp.199-212.

de Oliveira, M.M., 2019. Business Negotiations in ELF from a Cultural Linguistic Perspective. In *Business Negotiations in ELF from a Cultural Linguistic Perspective*. De Gruyter Mouton.

DeLuca, D. and Valacich, J.S., 2006. Virtual teams in and out of synchronicity. *Information Technology & People*, *19*(4), pp.323-344.

Dennis, A.R., Fuller, R.M. and Valacich, J.S., 2008. Media, tasks, and communication processes: A theory of media synchronicity. *MIS Quarterly*, *32*(3), pp.575-600.

Deterding, D., 2005. Listening to estuary English in Singapore. *TESOL quarterly*, *39*(3), pp.425-440.

Deterding, D., 2013. Misunderstandings in English as a lingua franca: An analysis of ELF interactions in South-East Asia (Vol. 1). Walter de Gruyter.

Dixon, K.R. and Panteli, N., 2010. From virtual teams to virtuality in teams. *Human Relations*, *63*(8), pp.1177-1197.

Dönmez, D., Grote, G. and Brusoni, S., 2016. Routine interdependencies as a source of stability and flexibility. A study of agile software development teams. *Information and Organization*, 26(3), pp.63–83.

Donnelly, N. and Proctor-Thomson, S.B., 2015. Disrupted work: Home-based teleworking (HbTW) in the aftermath of a natural disaster. *New Technology, Work and Employment*, 30(1), pp.47–61.

Dubé, L. and Robey, D., 1999. Software stories: Three cultural perspectives on the organizational practices of software development. *Accounting, Management and Information Technologies*, 9(4), pp.223–259.

Dubé, L. and Paré, G., 2001. Global Virtual Teams. *Communications of the ACM*, *44*(12), pp.71-73.

Dubé, L. and Robey, D., 2009. Surviving the paradoxes of virtual teamwork. *Information Systems Journal*, 19(1), pp.3–30.

Duranti, A., 1997. *Linguistic Anthropology*. Cambridge: Cambridge University Press.

Duranti, C.M. and de Almeida, F.C., 2012. Is more technology better for communication in international virtual teams?. *International Journal of e-Collaboration*, 8(1), pp.36-52.

Earley, C.P. and Mosakowski, E., 2000. Creating hybrid team cultures: An empirical test of transnational team functioning. *Academy of Management journal*, *43*(1), pp.26-49.

Ehrenreich, S., 2010. English as a business lingua franca in a German multinational corporation: Meeting the challenge. *The Journal of Business Communication*, *47*(4), pp.408-431.

Eisenhardt, K.M. and Graebner, M.E., 2007. Theory building from cases: Opportunities and challenges. *Academy of management journal*, *50*(1), pp.25-32.

Eurofound, 2020. *COVID-19 and the impact on business continuity: Changes in workplace practices*, Publications Office of the European Union, Luxembourg.

Fang, Y., Neufeld, D. and Zhang, X., 2021. Knowledge coordination via digital artefacts in highly dispersed teams. *Information Systems Journal*, *32*(3), pp.520-543.

Feely, A.J. and Harzing, A.W., 2003. Language management in multinational companies. *Cross Cultural Management: An International Journal*, *10*(2), pp.37-52.

Fiol, C.M. and O'Connor, E.J., 2005. Identification in Face-to-Face, Hybrid, and Pure Virtual Teams: Untangling the Contradictions. *Organization Science*, 16(1), pp.19–32.

Fogarty, H., Scott, P. and Williams, S., 2011. The half-empty office: Dilemmas in managing locational flexibility. *New Technology, Work and Employment*, 26(3), pp.183–195.

Foppa, K., 1995. On mutual understanding and agreement in dialogues. *Mutualities in dialogue*, pp.149-175.

Fredriksson, R., Barner-Rasmussen, W. and Piekkari, R., 2006. The multinational corporation as a multilingual organization: The notion of a common corporate language. *Corporate Communications: An International Journal*, *11*(4), pp.406-423.

Gallois, C. and Giles, H., 1998. Accommodating mutual influence in intergroup encounters. *Progress in communication sciences*, pp.135-162.

Ganesh, M.P. and Gupta, M., 2010. Impact of virtualness and task interdependence on extra-role performance in software development teams. *Team Performance Management: An International Journal*, *16*(3/4), pp.169-186.

Gao, S. et al, 2016. Factors affecting the performance of knowledge collaboration in virtual team based on capital appreciation. *Information Technology and Management*, 17(2), pp.119–131.

Garrison, G., Wakefield, R.L., Xu, X. and Kim, S.H., 2010. Globally distributed teams: The effect of diversity on trust, cohesion and individual performance. *ACM SIGMIS Database: the database for Advances in Information Systems*, *41*(3), pp.27-48.

George, A.L., 2019. Case studies and theory development: The method of structured, focused comparison. In *Alexander L. George: A pioneer in political and social sciences* (pp. 191-214). Springer, Cham.

Georgakopoulou, A., 2012. 'A simple disagreement? A row? Or a massive fall out?': On the challenges of an analytical task. *Journal of Pragmatics*, *44*(12), pp.1623-1625.

Gephart, R.P. and Rynes, S.L., 2004. Qualitative Research and the Academy of Management Journal. *Academy of Management Journal*, *47*(4), p.454.

Germonprez, M. and Zigurs, I., 2009. Task, technology, and tailoring in communicative action: An in-depth analysis of group communication. *Information and Organization*, 19(1), pp.22–46.

Ghapanchi, A.H., 2013. Rallying competencies in virtual communities: A study of core processes and user interest in open source software projects. *Information and Organization*, 23(2), pp.129–148.

Ghemawat, P., 2011. The cosmopolitan corporation. *Harvard Business Review*, *89*(5), pp.92-99.

Gibson, C.B. and Zellmer-Bruhn, M.E., 2001. Metaphors and meaning: An intercultural analysis of the concept of teamwork. *Administrative Science Quarterly*, *46*(2), pp.274-303.

Gibson, C.B. and Cohen, S.G. eds., 2003. *Virtual teams that work: Creating conditions for virtual team effectiveness*. John Wiley & Sons.

Gibson, C.B. and Gibbs, J.L., 2006. Unpacking the concept of virtuality: The effects of geographic dispersion, electronic dependence, dynamic structure, and national diversity on team innovation. *Administrative science quarterly*, *51*(3), pp.451-495.

Gibson, J.J., 1977. The theory of affordances. *Hilldale, USA*, *1*(2), pp.67-82.

Gilson, L.L., Maynard, M.T., Young, N.C.J., Vartiainen, M. and Hakonen, M., 2015. Virtual teams research 10 years, 10 themes, and 10 opportunities. *Journal of Management*, *41*(5), pp.1313-1337.

Gioia, D.A., Corley, K.G. and Hamilton, A.L., 2013. Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. *Organizational research methods*, 16(1), pp.15-31.

Goffman, E., 1967. *Interaction ritual: Essays on face-to-face interaction*. Oxford: Aldine.

Goffman, E., 2009 [1971]. *Relations in public*. Transaction Publishers.

Goh, S. and Wasko, M., 2012. The Effects of Leader-Member Exchange on Member Performance in Virtual World Teams. *Journal of the Association for Information Systems*, *13*(10).

Graham, S.L., 2007. Disagreeing to agree: Conflict, (im)politeness and identity in a computer-mediated community. *Journal of pragmatics*, *39*(4), pp.742-759.

Grainger, K., 2011. First order' and 'second order' politeness: Institutional and intercultural contexts. *Discursive approaches to politeness*, *167*, p.188.

Greenberg, P.S., Greenberg, R.H. and Antonucci, Y.L., 2007. Creating and sustaining trust in virtual teams. *Business horizons*, *50*(4), pp.325-333.

Grenfell, M., 2008. *Bourdieu: Key Concepts*, 1 ed. London: Routledge.

Griffith, T.L., Sawyer, J.E. and Neale, M. a, 2003. Virtualness and Knowledge in Teams: Managing the Love Triangle of Organizations, Individuals, and Information Technology. *MIS Quarterly*, 27(2), pp.265–287.

Hacker, J., vom Brocke, J., Handali, J., Otto, M. and Schneider, J., 2020. Virtually in this together–how web-conferencing systems enabled a new virtual togetherness during the COVID-19 crisis. *European Journal of Information Systems*, *29*(5), pp.563-584.

Hackman, J.R., 1990. *Groups that work and those that don't: Creating Conditions for Effective Teamwork*. London: Jossey-Bass.

Hafermalz, E. and Riemer, K., 2021. Productive and connected while working from home: what client-facing remote workers can learn from telenurses about ‘belonging through technology’. *European Journal of Information Systems*, *30*(1), pp.89-99.

Hallier, J. and Baralou, E., 2010. Other voices, other rooms: Differentiating social identity development in organisational and Pro-Am virtual teams. *New Technology, Work and Employment*, 25(2), pp.154–166.

Harzing, A.W., Köster, K. and Magner, U., 2011. Babel in business: The language barrier and its solutions in the HQ-subsidiary relationship. *Journal of World Business*, *46*(3), pp.279-287.

Harzing, A.W. and Pudelko, M., 2013. Language competencies, policies and practices in multinational corporations: A comprehensive review and comparison of Anglophone, Asian, Continental European and Nordic MNCs. *Journal of World Business*, *48*(1), pp.87-97.

Han, H.J., Hiltz, S.R., Fjermestad, J. and Wang, Y., 2011. Does medium matter? A comparison of initial meeting modes for virtual teams. *IEEE transactions on professional communication*, *54*(4), pp.376-391.

Hanisch, J. and Corbitt, B., 2007. Impediments to requirements engineering during global software development. *European Journal of Information Systems*, 16(6), pp.793–805.

Hartley, J., 2004. Case study research. In: Cassell, Catherine and Symon, Gillian eds. *Essential Guide to Qualitative Methods in Organizational Research.* London: Sage Publications Ltd, pp. 323–333.

Harvey, M., Novicevic, M.M. and Garrison, G., 2005. Global virtual teams: A human resource capital architecture. *The International Journal of Human Resource Management*, *16*(9), pp.1583-1599.

Heikkilä, J.P. and Smale, A., 2011. The effects of ‘language standardization’on the acceptance and use of e-HRM systems in foreign subsidiaries. *Journal of World Business*, *46*(3), pp.305-313.

Henderson, J.K., 2005. Language diversity in international management teams. *International Studies of Management & Organization*, *35*(1), pp.66-82.

Henderson, L.S., 2008. The impact of project managers' communication competencies: Validation and extension of a research model for virtuality, satisfaction, and productivity on project teams. *Project Management Journal*, *39*(2), pp.48-59.

Hinds, P.J. and Bailey, D.E., 2003. Out of Sight, Out of Sync: Understanding Conflict in Distributed Teams. *Organization Science*, 14(6), pp.615–632.

Hinds, P.J., and McGrath, C., 2006, November. Structures that work: social structure, work structure and coordination ease in geographically distributed teams. In *Proceedings of the 2006 20th anniversary conference on Computer supported cooperative work* (pp. 343-352). ACM.

Hinds, P.J., Liu, L. and Lyon, J., 2011. Putting the Global in Global Work: An Intercultural Lens on the Practice of Cross-National Collaboration. *The Academy of Management Annals*, 5(1), pp.135–188.

Hinds, P.J., Neeley, T.B. and Cramton, C.D., 2014. Language as a lightning rod: Power contests, emotion regulation, and subgroup dynamics in GVTs. *Journal of International Business Studies*, *45*(5), pp.536-561.

Hinnenkamp, V., 1999. The notion of misunderstanding in intercultural communication. *Journal of intercultural communication*, *1*, pp.1-13.

Hoch, J.E. and Kozlowski, S.W., 2014. Leading virtual teams: Hierarchical leadership, structural supports, and shared team leadership. *Journal of applied psychology*, *99*(3), p.390.

Hofstede, G., 1980. Culture and organizations. *International Studies of Management & Organization*, *10*(4), pp.15-41.

Hofstede, G., 2001. *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*. London: Sage.

Hofstede, G., 2010. The GLOBE debate: Back to relevance. *Journal of International Business Studies*, *41*(8), pp.1339-1346.

Holtgrewe, U., 2014. New new technologies: The future and the present of work in information and communication technology. *New Technology, Work and Employment*, 29(1), pp.9–24.

Hong, H.J., 2010. Bicultural competence and its impact on team effectiveness. *International Journal of Cross Cultural Management*, *10*(1), pp.93-120.

House, J. 1999. ‘Misunderstanding in intercultural communication: interactions in English as a lingua franca and the myth of mutual intelligibility’ in C. Gnutzmann (ed.). pp. 73–89.

House, J., 2008. English as lingua franca in Europe today. *Multilingual Europe: facts and policies*, 96, p.63.

Huff, L. and Kelley, L., 2003. Levels of organizational trust in individualist versus collectivist societies: A seven-nation study. *Organization Science*, *14*(1), pp.81-90.

Hughes, J.A., Sharrock, I., and Martin, P.J., 1997. *Understanding classical sociology*. Sage.

Humphrey, S.E. and Aime, F., 2014. Team microdynamics: Toward an organizing approach to teamwork. *Academy of Management Annals*, *8*(1), pp.443-503.

Ives, P., 2006. ‘Global English’: Linguistic Imperialism or Practical Lingua Franca?. *Studies in Language and Capitalism,* 1(1) pp.121-141.

Jackson, P.J., 1999. Organizational change and virtual teams: strategic and operational integration. *Information Systems Journal*, 9(4), pp.313–332.

Jackson, S., 2011. Organizational culture and information systems adoption: A three-perspective approach. *Information and Organization*, 21(2), pp.57–83.

Jarman, R., 2005. When success isn’t everything–case studies of two virtual teams. *Group Decision and Negotiation*, *14*(4), pp.333-354.

Janssens, M. and Steyaert, C., 2014. Re-considering language within a cosmopolitan understanding: Toward a multilingual franca approach in international business studies. *Journal of International Business Studies*, *45*(5), pp.623-639.

Jarvenpaa, S.L., Knoll, K. and Leidner, D.E., 1998. Is Anybody Out There? Antecedents of Trust in Global Virtual Teams. *Journal of Management Information Systems*, 14(4), pp.29–64.

Jarvenpaa, S.L. and Leidner, D.E., 1999. Communication and Virtual Trust in Global Virtual Teams. *Organization Science*, 10(6), pp.791–815.

Järvensivu, T. and Törnroos, J.Å., 2010. Case study research with moderate constructivism: Conceptualization and practical illustration. *Industrial marketing management*, *39*(1), pp.100-108.

Jehn, K.A. and Mannix, E.A., 2001. The dynamic nature of conflict: A longitudinal study of intragroup conflict and group performance. *Academy of management journal*, *44*(2), pp.238-251.

Jenkins, J., Cogo, A. and Dewey, M., 2011. Review of developments in research into English as a lingua franca. *Language teaching*, *44*(3), pp.281-315.

Jenkins, J., 2000. *The phonology of English as an international language*. Oxford University Press.

Jenkins, R., 2002. *Pierre Bourdieu*. London: Routledge.

Jin, L. and Robey, D., 2008. Bridging social and technical interfaces in organizations: An interpretive analysis of time-space distanciation. *Information and Organization*, 18(3), pp.177–204.

Johanson, J. and Vahlne, J.E., 1977. The internationalization process of the firm—a model of knowledge development and increasing foreign market commitments. *Journal of international business studies*, *8*(1), pp.23-32.

Johnson, P., Buehring, A., Cassell, C. and Symon, G., 2006. Evaluating qualitative management research: Towards a contingent criteriology. *International Journal of Management Reviews*, *8*(3), pp.131-156.

Jones, T.S., 2001. Emotional Communication. In Nelson, Paul E., (eds). *The Language of Conflict and Resolution*. London: SAGE Publications.

Kaboli, A., Tabari, M. and Kaboli, E., 2006. Leadership in Virtual Teams. *The Sixth International Symposium on Operations Research and Its Applications (ISORA'06)*, (August 8-12), pp.342–349.

Kappa, K., 2016. Exploring solidarity and consensus in English as lingua franca interactions. *Journal of Pragmatics*, *95*, pp.16-33.

Kanawattanachai, P. and Yoo, Y., 2007. The impact of knowledge coordination on virtual team performance over time. *MIS Quarterly*, 31(4), pp.783–808.

Kangasharju, H., 2002. Alignment in disagreement: Forming oppositional alliances in committee meetings. *Journal of pragmatics*, *34*(10-11), pp.1447-1471.

Kankanhalli, A., Tan, B.C. and Wei, K.K., 2006. Conflict and performance in global virtual teams. *Journal of management information systems*, *23*(3), pp.237-274.

Kamoche, K. and Cunha, M.P.E., 2001. Minimal structures: From jazz improvisation to product innovation. *Organization studies*, *22*(5), pp.733-764.

Kaur, J., 2011. Intercultural communication in English as a lingua franca: Some sources of misunderstanding.

Keightley, E., 2010. Remembering research: memory and methodology in the social sciences. *International journal of social research methodology*, *13*(1), pp.55-70.

Kikuchi, Y., 2004. *Japanese Modernisation and Mingei Theory: Cultural Nationalism and Oriental Orientalism*. Routledge.

Kirkman, B.L. and Mathieu, J.E., 2005. The dimensions and antecedents of team virtuality. *Journal of management*, *31*(5), pp.700-718.

Kitayama, S. and Markus, H.R., 1999. Yin and yang of the Japanese self: The cultural psychology of personality coherence.

Kitayama, S., 2002. Culture and basic psychological processes--toward a system view of culture: comment on Oyserman et al.(2002).

Klitmøller, A. and Lauring, J., 2013. When global virtual teams share knowledge: Media richness, cultural difference and language commonality. *Journal of World Business*, *48*(3), pp.398-406.

Kock, N. et al, 2006. Team adaptation to electronic communication media: evidence of compensatory adaptation in new product development teams. *European Journal of Information Systems*, 15(3), pp.331–341.

Kohn, K., 2011. English as a lingua franca and the Standard English misunderstanding. *English in Europe today. Sociocultural and educational perspectives*, pp.72-94.

Konakahara, M., 2017. Interactional management of face-threatening acts in casual ELF conversation: An analysis of third-party complaint sequences. *Journal of English as a lingua franca*, *6*(2), pp.313-343.

Koroma, J., Hyrkkänen, U. and Vartiainen, M., 2014. Looking for people, places and connections: Hindrances when working in multiple locations: A review. *New Technology, Work and Employment*, 29(2), pp.139–159.

Kotlarsky, J. and Oshri, I., 2005. Social ties, knowledge sharing and successful collaboration in globally distributed system development projects. *European Journal of Information Systems*, 14(December 2004), pp.37–48.

Kotsovinos, E., 2010. Virtualization: blessing or curse?. *Queue*, *8*(11), pp.1-7.

Koutsantoni, D., 2005. Greek cultural characteristics and academic writing. *Journal of Modern Greek Studies*, *23*(1), pp.97-138.

Kratzer, J., Leenders, R.T.A.J. and Van Engelen, J.M.L., 2006. Managing creative team performance in virtual environments: An empirical study in 44 R and D teams. *Technovation*, 26(1), pp.42–49.

Kulkarni, M., 2015. Language-based diversity and faultlines in organizations. *Journal of Organizational Behavior*, *36*(1), pp.128-146.

Kvale, S., 1995. The social construction of validity. *Qualitative inquiry*, *1*(1), pp.19-40.

Kvale, S. and Brinkmann, S., 2007. *Introduction to interview research*. *Doing interviews*, pp.2-11.

Kvale, S. and Brinkmann, S., 2009. *Interviews: Learning the craft of qualitative research interviewing*. Sage.

Laplanche, J. and Pontalis, J.B., 1973. The language of psycho-analysis. Oxford: W. W. Norton..

Lai, Y. and Burchell, B., 2008. Distributed work: Communication in an “officeless firm.” *New Technology, Work and Employment*, 23(1–2), pp.61–76.

Lauring, J., 2008. Rethinking social identity theory in international encounters: Language use as a negotiated object for identity making. *International Journal of Cross Cultural Management*, *8*(3), pp.343-361.

Lauring, J. and Klitmøller, A., 2015. Corporate language-based communication avoidance in MNCs: A multi-sited ethnography approach. *Journal of World Business*, *50*(1), pp.46-55.

Lee, J.Y.H., 2009. *Conflict in Inter-organisational Virtual Communication* (Doctoral dissertation, University of Bath).

Lee, J.Y.H. and Panteli, N., 2010. Business Strategic Conflict in Computer-Mediated Communication. *European Journal of Information Systems*, 19(2), pp.196–208.

Lee, J.Y.H., Saunders, C., Panteli, N. and Wang, T., 2021. Managing information sharing: Interorganizational communication in collaborations with competitors. *Information and Organization*, *31*(2), p.100354.

Leenders, R.T.A., Van Engelen, J.M. and Kratzer, J., 2003. Virtuality, communication, and new product team creativity: a social network perspective. *Journal of Engineering and Technology Management*, *20*(1), pp.69-92.

Leonardi, P.M. and Barley, S.R., 2010. What's under construction here? Social action, materiality, and power in constructivist studies of technology and organizing. *Academy of Management Annals*, *4*(1), pp.1-51.

Leonardi, P.M., 2011. When flexible routines meet flexible technologies: Affordance, constraint, and the imbrication of human and material agencies. *MIS quarterly*, pp.147-167.

Leung, K., Bhagat, R.S., Buchan, N.R., Erez, M. and Gibson, C.B., 2005. Culture and international business: Recent advances and their implications for future research. *Journal of international business studies*, *36*(4), pp.357-378.

Levina, N. and Vaast, E., 2008. Innovating or doing as told? Status differences and overlapping boundaries in offshore collaboration. *MIS Quarterly*, 32(2), pp.307–332.

Levinson, S.C., 1983. *Pragmatics*. Cambridge university press.

Lewis, J. and Ritchie, J., 2003. Generalising from qualitative research. *Qualitative research practice: A guide for social science students and researchers*, *2*, pp.347-362.

Lim, J.Y.K., 2018. IT-enabled awareness and self-directed leadership behaviors in virtual teams. *Information and Organization*, *28*(2), pp.71-88.

Lipnack, J. and Stamps, J., 1999. Virtual teams: The new way to work. *Strategy & Leadership*, *27*(1), pp.14-19.

Lo Iacono, V., Symonds, P. and Brown, D.H., 2016. Skype as a tool for qualitative research interviews. *Sociological Research Online*, *21*(2), pp.1-15.

Locher, M.A., 2006. Polite behavior within relational work: The discursive approach to politeness. *Multilingua-Journal of Cross-Cultural and Interlanguage Communication*, *25*(3), pp.249-267.

Locher, M.A., 2010. *Power and politeness in action: Disagreements in oral communication* (Vol. 12). Walter de Gruyter.

Locher, M.A. and Bolander, B., 2017. Facework and identity. in W. Bublitz, C. Hoffmann, C. (eds), *Pragmatics of Social Media*, pp.407-434.

Locke, K.D., 2001. *Grounded theory in management research*. Sage.

Lockwood, J., 2015. Virtual team management: what is causing communication breakdown?. *Language and intercultural communication*, *15*(1), pp.125-140.

Lodovici, M.S., Ferrari, E., Paladino, E., Pesce, F., Frecassetti, P., Samek Lodovici, M., Aram, E., Hadjivassiliou, K., 2021. The impact of teleworking and digital work on workers and society. *European Parliament*.

Lowry, P.B., Zhang, D., Zhou, L. and Fu, X., 2010. Effects of culture, social presence, and group composition on trust in technology-supported decision-making groups. *Information Systems Journal*, *20*(3), pp.297-315.

Lowry, P.B., Schuetzler, R.M., Giboney, J.S. and Gregory, T.A., 2015. Is trust always better than distrust? The potential value of distrust in newer virtual teams engaged in short-term decision-making. *Group Decision and Negotiation*, *24*(4), pp.723-752.

Luo, Y. and Shenkar, O., 2006. The multinational corporation as a multilingual community: Language and organization in a global context. *Journal of International Business Studies*, 37(3), pp.321-339.

Luse, A., Mcelroy, J.C., Townsend, A.M. and Demarie, S., 2013. Personality and cognitive style as predictors of preference for working in virtual teams. *Computers in Human Behavior*, 29(4), pp.1825-1832.

Maclean, D., 2006. Beyond English: Transnational corporations and the strategic management of language in a complex multilingual business environment. *Management Decision*, *44*(10), pp.1377-1390.

Maddux, W.W. and Yuki, M., 2006. The "ripple effect": Cultural differences in perceptions of the consequences of events. *Personality and Social Psychology Bulletin*, *32*(5), pp.669-683.

Magee, J.C. and Smith, P.K., 2013. The social distance theory of power. *Personality and social psychology review*, *17*(2), pp.158-186.

Majchrzak, A. et al, 2000. Technology Adaptation: The Case of a Computer-Supported Inter-Organizational Virtual Team. *MIS Quarterly*, 24(4), p.569.

Makri-Tsilipakou, M., 1995. What has changed, then? Studies about the Greek language. In *Proceedings, 16th Annual Meeting of the Linguistics Department, Faculty of Philosophy, Aristotle University of Thessaloniki* (Vol. 435, p. 446).

Malhotra, A., Majchrzak, A., Carman, R. and Lott, V., 2001. Radical innovation without collocation: A case study at Boeing-Rocketdyne. *MIS quarterly*, pp.229-249.

Malhotra, A. and Majchrzak, A., 2014. Enhancing performance of geographically distributed teams through targeted use of information and communication technologies. *Human Relations*, 67(4), pp.389–411.

Manev, I.M. and Stevenson, W.B., 2001. Nationality, cultural distance, and expatriate status: Effects on the managerial network in a multinational enterprise. *Journal of international business studies*, *32*(2), pp.285-303.

Marabelli, M., Vaast, E. and Li, J.L., 2021. Preventing the digital scars of COVID-19. *European Journal of Information Systems*, *30*(2), pp.176-192.

Marra, M., 2012. Disagreeing without being disagreeable: Negotiating workplace communities as an outsider. *Journal of Pragmatics*, *44*(12), pp.1580-1590.

Marsh, D. and Furlong, P., 2002. A skin not a sweater: ontology and epistemology in political science. *Theory and methods in political science*, *2*, pp.17-41.

Maton, K., 2003. Reflexivity, relationism, & research: Pierre Bourdieu and the epistemic conditions of social scientific knowledge. *Space and culture*, *6*(1), pp.52-65.

Matsumoto, Y., 2014. Collaborative co-construction of humorous interaction among ELF speakers. *Journal of English as a Lingua Franca*, *3*(1), pp.81-107.

Mauranen, A., 2005. English as a lingua franca: An unknown language. *Identity, community, discourse: English in intercultural settings*, *269293*.

Maznevski, M.L. and Chudoba, K.M., 2000. Bridging space over time: Global virtual team dynamics and effectiveness. *Organization science*, *11*(5), pp.473-492.

McWhorter, J.H., 2014. *The language hoax: Why the world looks the same in any language*. Oxford University Press, USA.

Menzies Lyth, I., 1960. Social systems as a defence against anxiety: an empirical study of the nursing service of a general hospital. *Human Relations*, *13*(2), pp.95-121.

Miao, C., Humphrey, R.H. and Qian, S., 2018. A cross-cultural meta-analysis of how leader emotional intelligence influences subordinate task performance and organizational citizenship behavior. *Journal of World Business*, *53*(4), pp.463-474.

Miles, M.B., and Huberman, M., 1994. *Qualitative data analysis: An expanded sourcebook*. Sage: London.

Minbaeva, D., Rabbiosi, L. and Stahl, G.K., 2018. Not walking the talk? How host country cultural orientations may buffer the damage of corporate values' misalignment in multinational corporations. *Journal of World Business*, *53*(6), pp.880-895.

Miranda, S.M. and Saunders, C.S., 2003. The social construction of meaning: An alternative perspective on information sharing. *Information systems research*, *14*(1), pp.87-106.

Mortensen, M. and Hinds, P.J., 2001. Conflict and shared identity in geographically distributed teams. *International Journal of Conflict Management*, *12*(3), pp.212-238.

Mustajoki, A., 2012. A speaker-oriented multidimensional approach to risks and causes of miscommunication. *Language and dialogue*, *2*(2), pp.216-243.

Myers, S.A., 2004. The relationship between perceived instructor credibility and college student in-class and out-of-class communication. *Communication Reports*, *17*(2), pp.129-137.

Neeley, T.B., Hinds, P.J. and Cramton, C.D., 2012. The (Un) Hidden Turmoil of Language in Global Collaboration. *Organizational Dynamics*, 41(3), pp.236–244.

Nemiro, J.E., 2002. The creative process in virtual teams. *Communication Research Journal*, *14*(1), pp.69-83.

Noda, M., 2004. Hidden disagreement: Relation maintenance in Japanese discourse of disagreement. In P. Szatrowski (ed.), Hidden and Open Conflict in Japanese Conversational Interaction. 95–123. Tokyo: Kurosio Publishers.

O'Leary, M. B., Cummings, J. N., 2007, The spatial, temporal, and configurational characteristics of geographic dispersion in teams. *MIS Quart*. 32(3) 433-452.

O'Leary, M.B. and Mortensen, M., 2010. Go (con) figure: Subgroups, imbalance, and isolates in geographically dispersed teams. *Organization Science*, *21*(1), pp.115-131.

O'Leary, M.B., Wilson, J.M. and Metiu, A., 2014. Beyond being there: The symbolic role of communication and identification in perceptions of proximity to geographically dispersed colleagues. MIS quarterly, 38(4), pp.1219-1243.

Orlikowski, W.J. and Scott, S.V., 2008. 10 sociomateriality: challenging the separation of technology, work and organization. *The academy of management annals*, *2*(1), pp.433-474.

Orlikowski, W.J., 2002. Knowing in practice: Enacting a collective capability in distributed organizing. *Organization science*, *13*(3), pp.249-273.

Orr, R.J. and Scott, W.R., 2008. Institutional exceptions on global projects: a process model. *Journal of International Business Studies*, *39*(4), pp.562-588.

Panteli, N., 2004. Discursive articulations of presence in virtual organizing. *Information and Organization*, 14(1), pp.59–81.

Panteli, N. and Duncan, E., 2004. Trust and temporary virtual teams: alternative explanations and dramaturgical relationships. *Information Technology & People*, *17*(4), pp.423-441.

Panteli, N. and Sockalingam, S., 2005. Trust and conflict within virtual inter-organizational alliances: a framework for facilitating knowledge sharing. *Decision support systems*, *39*(4), pp.599-617.

Panteli, N. and Chiasson, M., 2008. Rethinking virtuality. In *Exploring Virtuality within and beyond Organizations* (pp. 1-17). Palgrave Macmillan, London.

Paring, G., Pezé, S. and Huault, I., 2017. 'Welcome to the whiteboard, the new member of the team': Identity regulation as a sociomaterial process. *Organization*, *24*(6), pp.844-865.

Paul, D.L. and McDaniel Jr., R.R., 2004. A Field Study of the Effect of Interpersonal Trust on Virtual Collaborative Relationship Performance. *MIS Quarterly*, 28(2), pp.183–227.

Paul, S., He, F. and Dennis, A.R., 2018. Group Atmosphere, Shared Understanding, and Team Conflict in Short Duration Virtual Teams. In *Proceedings of the 51st Hawaii International Conference on System Sciences*.

Pauleen, D.J. and Yoong, P., 2001. Relationship building and the use of ICT in boundary-crossing virtual teams: a facilitator's perspective. *Journal of Information Technology*, *16*(4), pp.205-220.

Paunova, M., 2017. Who gets to lead the multinational team? An updated status characteristics perspective. *Human Relations*, *70*(7), pp.883-907.

Pazos, P., 2012. Conflict management and effectiveness in virtual teams. *Team Performance Management: An International Journal*, *18*(7/8), pp.401-417.

Peltokorpi, V. and Vaara, E., 2014. Knowledge transfer in multinational corporations: Productive and counterproductive effects of language-sensitive recruitment. *Journal of International Business Studies*, *45*(5), pp.600-622.

Perlow, L.A., Gittell, J.H. and Katz, N., 2004. Contextualizing patterns of work group interaction: Toward a nested theory of structuration. *Organization Science*, *15*(5), pp.520-536.

Piccoli, G. and Ives, B., 2004. Trust and the unintended effects of behavior control in virtual teams. *MIS Quarterly*, 27(3), pp.365–396.

Pickering, L., 2006. Current research on intelligibility in English as a lingua franca. *Annual Review of Applied Linguistics*, *26*, pp.219-233.

Piekkari, R., Vaara, E., Tienari, J. and Säntti, R., 2005. Integration or disintegration? Human resource implications of a common corporate language decision in a cross-border merger. *The International Journal of Human Resource Management*, *16*(3), pp.330-344.

Pietikäinen, K.S., 2018. Misunderstandings and ensuring understanding in private ELF talk. *Applied Linguistics*, *39*(2), pp.188-212.

Pinjani, P. and Palvia, P., 2013. Trust and knowledge sharing in diverse global virtual teams. *Information and Management*, 50(4), pp.144–153.

Pink, S., Lingard, H. and Harley, J., 2017. Refiguring creativity in virtual work: the digital-material construction site. *New technology, work and employment*, *32*(1), pp.12-27.

Polzer, J.T., Crisp, C.B., Jarvenpaa, S.L. and Kim, J.W., 2006. Extending the faultline model to geographically dispersed teams: How colocated subgroups can impair group functioning. *Academy of management Journal*, *49*(4), pp.679-692.

Pomerantz, A., 1984. Agreeing and Disagreeing with Assessments: Some Features of Preferred/Dispreferred Turn Shapes. *Structures of Social Action: Studies in Conversation Analysis*.

Poole, M.S. and DeSanctis, G., 2004. Structuration theory in information systems research: Methods and controversies. In *The handbook of information systems research* (pp. 206-249). IGI Global.

Powell, A., Piccoli, G. and Ives, B., 2004. Virtual teams: A Review of Current Literature and Directions for Future Research. *ACM SIGMIS Database*, 35(1), pp.6–36.

Poyntz, R., 2018. *The enactment of workplace mediation in British universities: a study of mediator meta-theory and the integration of practice* (Doctoral dissertation, University of Sheffield).

Pratt, M.L., 1991. Arts of the contact zone. *Profession*, pp.33-40.

Rapp, A., Ahearne, M., Mathieu, J. and Rapp, T., 2010. Managing sales teams in a virtual environment. *International Journal of Research in Marketing*, *27*(3), pp.213-224.

Reed, M., 2005. Reflections on the ‘realist turn’ in organization and management studies. *Journal of Management Studies*, 42(8), pp.1621-1644.

Rees-Miller, J., 2000. Power, severity, and context in disagreement. *Journal of pragmatics*, *32*(8), pp.1087-1111.

Rehbein, J., ten Thije, J.D. and Verschik, A., 2012. Lingua receptiva (LaRa)–remarks on the quintessence of receptive multilingualism. *International Journal of Bilingualism*, *16*(3), pp.248-264.

Rehm, S.V. and Goel, L., 2015. The emergence of boundary clusters in inter-organizational innovation. *Information and Organization*, 25(1), pp.27–51.

Reichertz, J., 2007. *Abduction: The logic of discovery of grounded theory*. London: Sage.

Ribes, D., Jackson, S., Geiger, S., Burton, M. and Finholt, T., 2013. Artifacts that organize: Delegation in the distributed organization. *Information and Organization*, *23*(1), pp.1-14.

Robins, N., 2002. Loot: in search of the East India Company, the world’s first transnational corporation. *Environment and Urbanization*, *14*(1), pp.79-88.

Robles, J.S., 2017. Misunderstanding as a resource in interaction. *Pragmatics. Quarterly Publication of the International Pragmatics Association (IPrA)*, *27*(1), pp.57-86.

Rogers, E.M., 1986. Communication technology: The new media in society. London: Simon and Schuster.

Rogerson-Revell, P., 2007. Using English for international business: A European case study. *English for specific purposes*, *26*(1), pp.103-120.

Rowe, F., Te’eni, D. and Merminod, V., 2021. The maturation of digital objects in innovation projects: the role of interpersonal networks and team sharing atmosphere. *European Journal of Information Systems*, pp.1-28.

Schegloff, E.A. and Sacks, H., 1973. Opening up Closings. *Semiotica*, *8*(4).

Sacks, H., Schegloff, E.A. and Jefferson, G., 1978. A simplest systematics for the organization of turn taking for conversation. In *Studies in the organization of conversational interaction* (pp. 7-55). Academic Press.

Sacks, H., 2020. On the preferences for agreement and contiguity in sequences in conversation. In *Language in Use* (pp. 8-22). Routledge.

Sarker, S. and Sahay, S., 2004. Implications of space and time for distributed work: an interpretive study of US–Norwegian systems development teams. *European Journal of Information Systems*, 13(1), pp.3–20.

Sarker, S., Munson, C.L., Sarker, S. and Chakraborty, S., 2009. Assessing the relative contribution of the facets of agility to distributed systems development success: an Analytic Hierarchy Process approach. *European Journal of Information Systems*, *18*(4), pp.285-299.

Sarker, S., Ahuja, M., Sarker, S. and Kirkeby, S., 2011. The role of communication and trust in global virtual teams: A social network perspective. *Journal of Management Information Systems*, *28*(1), pp.273-310.

Sarker, S., Xiao, X., Beaulieu, T. and Lee, A.S., 2018. Learning from First-Generation Qualitative Approaches in the IS Discipline: An Evolutionary View and Some Implications for Authors and Evaluators (PART 1/2). *Journal of the Association for Information Systems*, *19*(8), pp.752-774.

Saunders, M., Lewis, P. and Thornhill, A., 2009. Research methods for business students. Essex: Prentice Hall.

Schiffrin, D., 1984. Jewish argument as sociability. *Language in society*, *13*(3), pp.311-335.

Schweitzer, L. and Duxbury, L., 2010. Conceptualizing and measuring the virtuality of teams. *Information Systems Journal*, 20(3), pp.267–295.

Seidel, S., Chandra Kruse, L., Székely, N., Gau, M. and Stieger, D., 2018. Design principles for sensemaking support systems in environmental sustainability transformations. *European Journal of Information Systems*, pp.1-26.

Selmer, J. and Lauring, J., 2012. Reasons to expatriate and work outcomes of self-initiated expatriates. *Personnel Review*, *41*(5), pp.665-684.

Shachaf, P., 2008. Cultural diversity and information and communication technology impacts on global virtual teams: An exploratory study. *Information and Management*, 45(2), pp.131–142.

Sheer, V.C. and Chen, L., 2004. Improving media richness theory: A study of interaction goals, message valence, and task complexity in manager-subordinate communication. *Management Communication Quarterly*, *18*(1), pp.76-93.

Shen, Z., Lyytinen, K. and Yoo, Y., 2014. Time and Information Technology in Teams: A Review of Empirical Research and Future Research Directions. *European Journal of Information Systems*, forthcomin(5), pp.1–27.

Sidhu, J.S. and Volberda, H.W., 2011. Coordination of globally distributed teams: A co-evolution perspective on offshoring. *International Business Review*, *20*(3), pp.278-290.

Siebdrat, F., Hoegl, M. and Ernst, H., 2014. Subjective Distance and Team Collaboration in Distributed Teams., 31(4), pp.765–779.

Sifianou, M., 2012. Disagreements, face and politeness. *Journal of pragmatics*, *44*(12), pp.1554-1564.

Simmel, G., 2010[1908]. *Conflict and the web of group affiliations*. Simon and Schuster.

Simpson, J.A., 1989. *The Oxford English dictionary* (Vol. 15). Oxford University Press, USA.

Smit, U., 2010. *English as a lingua franca in higher education: A longitudinal study of classroom discourse* (Vol. 2). Walter de Gruyter.

Son, S. and Park, H., 2011. Conflict management in a virtual team. In *The 5th International Conference on New Trends in Information Science and Service Science* (Vol. 2, pp. 273-276). IEEE.

Sosniak, L. A. (2006). Retrospective Interviews in the Study of Expertise and Expert Performance. In K. A. Ericsson, N. Charness, P. J. Feltovich, & R. R. Hoffman (Eds.), *The Cambridge handbook of expertise and expert performance* (pp. 287-301). New York, NY, US: Cambridge University Press.

Stahl, G.K., Maznevski, M.L., Voigt, A. and Jonsen, K., 2010. Unraveling the effects of cultural diversity in teams: A meta-analysis of research on multicultural work groups. *Journal of international business studies*, *41*(4), pp.690-709.

Stahl, G.K. and Tung, R.L., 2015. Towards a more balanced treatment of culture in international business studies: The need for positive cross-cultural scholarship. *Journal of International Business Studies*, *46*(4), pp.391-414.

Stewart, K.J. and Sanjay Gosain, 2006. The Impact Of Ideology On Effectiveness In Open Source Software Development Teams. *MIS Quarterly*, 30(2), p.291–314.

Sturm, R.E. and Antonakis, J., 2015. Interpersonal power: A review, critique, and research agenda. *Journal of Management*, *41*(1), pp.136-163.

Suh, A., Shin, K.S., Ahuja, M. and Kim, M.S., 2011. The influence of virtuality on social networks within and across work groups: A multilevel approach. *Journal of Management Information Systems*, *28*(1), pp.351-386.

Sveningsson, S. and Alvesson, M., 2003. Managing managerial identities: Organizational fragmentation, discourse and identity struggle. *Human relations*, *56*(10), pp.1163-1193.

Sweeney, E. and Hua, Z., 2010. Accommodating toward your audience: Do native speakers of English know how to accommodate their communication strategies toward nonnative speakers of English?. *The Journal of Business Communication (1973)*, *47*(4), pp.477-504.

Tan, B., Pan, S.L., Chen, W. and Huang, L., 2020. Organizational Sensemaking in ERP Implementation: The Influence of Sensemaking Structure. *MIS Quarterly*, *44*(4).

Tavory, I. and Timmermans, S., 2014. *Abductive analysis: Theorizing qualitative research*. Chicago: University of Chicago Press.

Taylor, H., Dillon, S. and Van Wingen, M., 2010. Focus and diversity in Information Systems research: Meeting the dual demands of a healthy applied discipline. *Management Information Systems Quarterly*, 34(4), pp.647–667.

Tenzer, H. and Pudelko, M., 2017. The influence of language differences on power dynamics in multinational teams. *Journal of World Business*, *52*(1), pp.45-61.

Thomas, D.M. and Bostrom, R.P., 2010. Team leader strategies for enabling collaboration technology adaptation: team technology knowledge to improve globally distributed systems development work. *European Journal of Information Systems*, 19(2), pp.223–237.

Toomaneejinda, A. and Harding, L., 2018. Disagreement practices in ELF academic group discussion: Verbal, nonverbal and interactional strategies. *Journal of English as a Lingua Franca*, *7*(2), pp.307-332.

Vaast, E. and Walsham, G., 2013. Grounded Theorizing for Electronically Mediated Social Contexts. *European Journal of Information Systems*, 22(1), pp.9–25.

Vaish, V., 2005. A peripherist view of English as a language of decolonization in post-colonial India. *Language policy*, *4*(2), pp.187-206.

van der Kleij, R., Maarten Schraagen, J., Werkhoven, P. and De Dreu, C.K., 2009. How conversations change over time in face-to-face and video-mediated communication. *Small Group Research*, *40*(4), pp.355-381.

Varonis, E.M. and Gass, S., 1985. Non-native/non-native conversations: A model for negotiation of meaning. *Applied linguistics*, *6*(1), pp.71-90.

Vartiainen, M. and Hyrkkänen, U., 2010. Changing requirements and mental workload factors in mobile multi-locational work. *New Technology, Work and Employment*, 25(2), pp.117–135.

Verdonik, D., 2010. Between understanding and misunderstanding. *Journal of Pragmatics*, *42*(5), pp.1364-1379.

Verrept, S., 2000, *Keynote Speech*, Paper presented at the European Association of Business Communication, Antwerp.

Vickery, C.M., Clark, T.D. and Carlson, J.R., 1999. Virtual positions: an examination of structure and performance in ad hoc workgroups. *Information Systems Journal*, 9(4), pp.291–312.

Vigier, M. and Spencer-Oatey, H., 2018. The interplay of rules, asymmetries in language fluency, and team dynamics in culturally diverse teams: Case study insights. *Cross Cultural & Strategic Management*, *25*(1), pp.157-182.

Wageman, R., Gardner, H. and Mortensen, M., 2012. Teams Have Changed: Catching Up to the Future. *Industrial and Organizational Psychology*, 5(1), pp.48–52.

Waizenegger, L., McKenna, B., Cai, W. and Bendz, T., 2020. An affordance perspective of team collaboration and enforced working from home during COVID-19. *European Journal of Information Systems*, *29*(4), pp.429-442.

Wajcman, J., 2006. New connections: social studies of science and technology and studies of work. *Work, employment and society*, *20*(4), pp.773-786.

Wajcman, J., Rose, E., Brown, J.E. and Bittman, M., 2010. Enacting virtual connections between work and home. *Journal of sociology*, *46*(3), pp.257-275.

Waldron, V.R. and Applegate, J.L., 1994. Interpersonal construct differentiation and conversational planning: An examination of two cognitive accounts for the production of competent verbal disagreement tactics. *Human communication research*, *21*(1), pp.3-35.

Wang, H.C., Fussell, S.F. and Setlock, L.D., 2009, April. Cultural difference and adaptation of communication styles in computer-mediated group brainstorming. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (pp. 669-678). ACM.

Warkentin, M., Charles-Pauvers, B. and Chau, P.Y., 2015. Cross-cultural IS research: perspectives from Eastern and Western traditions. *European Journal of Information Systems*, *24*(3), pp.229-233.

Watson-Manheim, M.B., Chudoba, K.M. and Crowston, K., 2012. Perceived discontinuities and constructed continuities in virtual work. *Information Systems Journal*, 22(1), pp.29–52.

Webster, J. and Leung, W.F., 2017. Introduction: creativity, knowledge and innovation in virtual work. *New Technology, Work and Employment*, *32*(1), pp.1-11.

Weick, K.E., 1995. *Sensemaking in organizations* (Vol. 3). Sage.

Weick, M. and Guinote, A., 2008. When subjective experiences matter: Power increases reliance on the ease of retrieval. *Journal of personality and social psychology*, *94*(6), p.956.

Weigand, E., 1999. Misunderstanding: The standard case. *Journal of pragmatics*, *31*(6), pp.763-785.

Welch, D.E., and Welch, L.S., 2008. The importance of language in international knowledge transfer. *Management International Review*, *48*(3), pp.339-360.

Whillans, A., Perlow, L. and Turek, A., 2021. Experimenting during the shift to virtual team work: Learnings from how teams adapted their activities during the COVID-19 pandemic. *Information and Organization*, *31*(1), p.100343.

Whittle, A., and Mueller, F., 2009. “I could be dead for two weeks and my boss would never know”: Telework and the politics of representation. *New Technology, Work and Employment*, 24(2), pp.131–143.

Whitley, R.D., 1990. Eastern Asian enterprise structures and the comparative analysis of forms of business organization. *Organization Studies*, *11*(1), pp.047-74.

Wrench, J.S. and Punyanunt-Carter, N.M., 2007. The relationship between computer-mediated-communication competence, apprehension, self-efficacy, perceived confidence, and social presence. *Southern Communication Journal*, *72*(4), pp.355-378.

Yamao, S. and Sekiguchi, T., 2015. Employee commitment to corporate globalization: The role of English language proficiency and human resource practices. *Journal of World Business*, 50(1), pp.168–179.

Yan, L. and Panteli, N., 2011. Order and disorder in a Born Global organisation. *New Technology, Work and Employment*, 26(2), pp.127–145.

Yeow, J., 2014. Boundary management in an ICT-enabled project-based organising context. *New Technology, Work and Employment*, 29(3), pp.237–252.

Yin, R.K., 1981. The case study crisis: Some answers. *Administrative science quarterly*, *26*(1), pp.58-65.

Yin, R.K., 2004. *The case study anthology*. Sage: London.

Yoo, Y. and Alavi, M., 2004. Emergent leadership in virtual teams: What do emergent leaders do? *Information and Organization*, 14(1), pp.27–58.

Yusof, S.A.M. and Zakaria, N., 2012, January. Exploring the state of discipline on the formation of swift trust within global virtual teams. In *2012 45th Hawaii International Conference on System Sciences* (pp. 475-482). IEEE.

Zammuto, R.F., Griffith, T.L., Majchrzak, A., Dougherty, D.J. and Faraj, S., 2007. Information technology and the changing fabric of organization. *Organization science*, 18(5), pp.749-762.

Zander, L., Mockaitis, A.I., Harzing, A.W., Baldueza, J., Barner-Rasmussen, W., Barzantny, C., Canabal, A., Davila, A., Espejo, A., Ferreira, R.F. and Giroud, A., 2011. Standardization and contextualization: A study of language and leadership across 17 countries. *Journal of World Business*, *46*(3), pp.296-304.

Zaugg, H., Davies, R., Parkinson, A. and Magleby, S., 2015. Best practices for using global virtual teams. *TechTrends*, *59*(4), p.87.

Zhang, S. et al, 2008. Occurrence and effects of leader delegation in virtual teams. *Proceedings of the Annual Hawaii International Conference on System Sciences*, pp.1–10.

Zolin, R. et al, 2004. Interpersonal trust in cross-functional, geographically distributed work: A longitudinal study. *Information and Organization*, 14(1), pp.1–26.

Appendix 1 Supplementary analysis of misunderstandings and disagreements

In temporary, inter-organisational global teams, such as those in this study, discontinuities from culture to technology within the group cause knowledge transfer and workflow issues. In this sense, incidents of misunderstandings and disagreements in global teams involving multiple organisations are boundary dilemmas (Yeow, 2014) where crossing fault lines results in communication issues (Hinds et al, 2014). The findings sections (Chapters 5 and 6) have analysed these discontinuities and work issues in aggregate and with reference to Team A, to understand the phenomenon of hidden discord as a whole, including its presence and effects on individual teams. This section analyses the findings in a more specific and nuanced manner, delineating misunderstandings from hidden disagreements, to better understand the accomplishments of this study. In this appendix, the findings will also be contrasted to findings from previous studies in the virtual teams field and sociolingusitics, to understand the variance and to emphasise results which were unexpected.

The appendix begins with a general model for misunderstandings in global teams, before analysing in more detail the contributing conditions to misunderstandings. The section then moves onto analysis of the three transition points in a misunderstanding: recognition, emotional containment, and resistance to blame. The section on misunderstandings ends with a comparison of the effects of different types of misunderstandings on global teams. The following section offers the same analytical structure applied to disagreements in GVTs: a general model, followed by contributing conditions, and three identified transition points (allowing discussion, discussion towards a managed resolution, and conflict resolution or repression), ending with comparison of effects.

Misunderstandings

Before exploring findings related to misunderstandings, it is worth highlighting that misunderstandings only occurred in 19 of the 54 incidents, that is, 35 percent of incidents were misunderstandings, despite research participants being directly asked about misunderstandings and not disagreements. Further, only three of the six teams who were selected for this study presented incidents of misunderstanding. This strongly suggests that misunderstandings are rarely remembered relative to hidden disagreements and may only arise in certain situations.

The figure below displays what the findings imply for the pathways of misunderstandings in GVTs. This figure was developed by examining the conditions, effects and pathways for each of the 19 misunderstandings in this study, understanding what was common to each type of case and presenting the types in a single model. The model demonstrates that any misunderstanding can be unrealised, contained or damaging depending on how the team navigates three transition points:

recognition, emotional containment, and resistance to blame. Whilst the effects of these types of misunderstandings are divergent, they are relatively common in global teams when those teams use asynchronous communication and have severe language asymmetries.

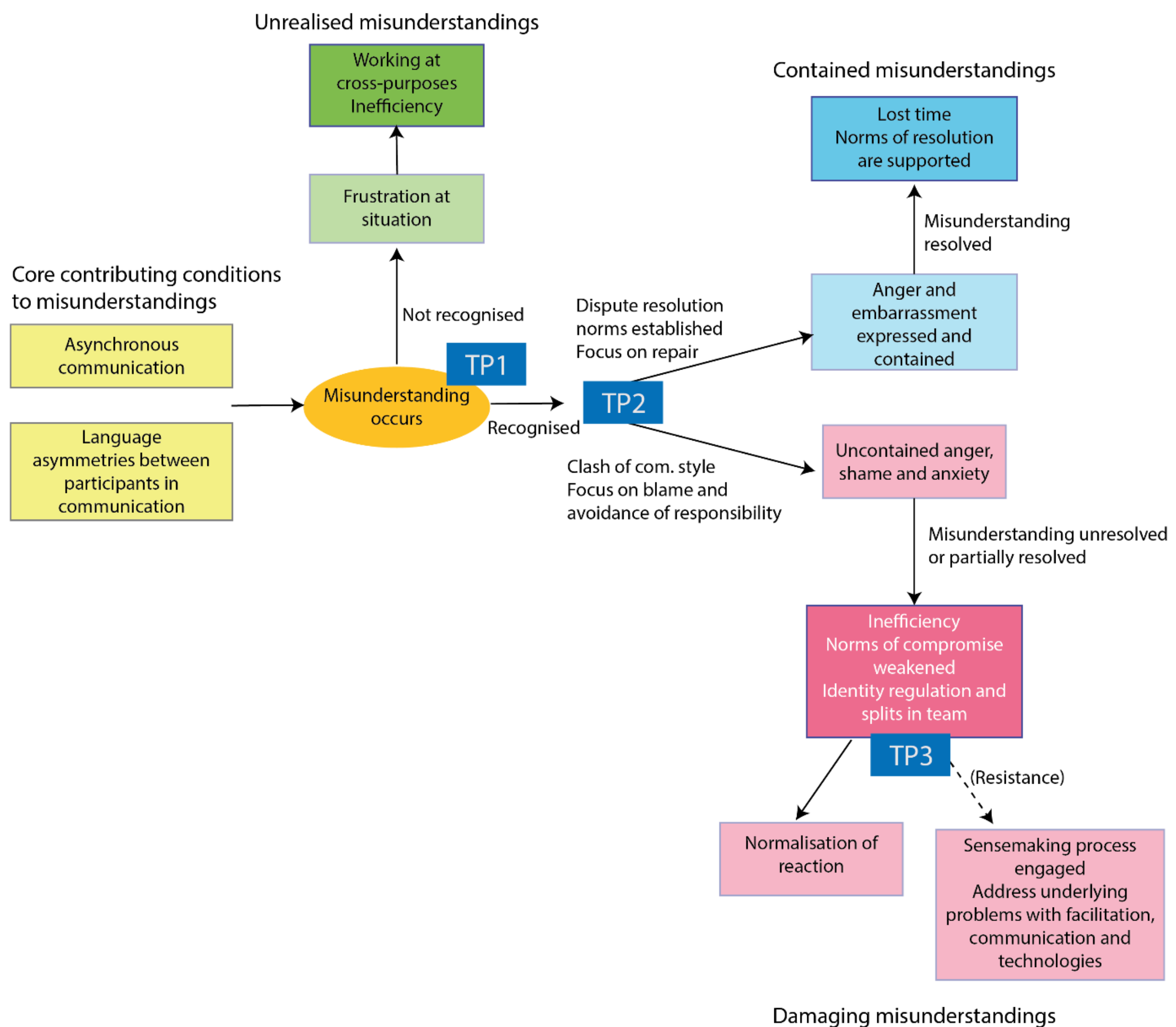

Figure 21 Model of misunderstandings: contributing factors and pathways for unrecognised, contained, and damaging misunderstandings. Transition points are highlighted in blue boxes and abbreviated e.g. 'TP1'.

The three main components of the misunderstandings pathway model i) contributing conditions, ii) transition points, and iii) effects, are each discussed below.

Contributing conditions

Whilst misunderstandings can happen during any communication, in global teams they were more likely arise in two specific situations. First, when language proficiency in the *lingua franca* is characterised by great deviation between team members (or when no *lingua franca* is possible due to lack of a shared language) this often created the conditions for misunderstandings to arise.

Misunderstandings were particularly common when the listener had lower language proficiency and the speaker did not accommodate their lower ability through simple, unambiguous messaging. Therefore, language skill asymmetries which produce (or prevent) misunderstandings. Second, poor use of computer mediated communication can exacerbate the incidence of misunderstandings where, for instance, email messages are used to come to an understanding, or teleconferences are used to share information which would be easier to digest if written. These factors (language asymmetries and poor use of communication technology) help determine the frequency to which misunderstandings arise in global work.

Language was examined in this study for its potential effect on global teams, under the assumption that language would be a pervasive and persistent category. In the teams covered in this study, there were few indications of linguistic splits in teams as seen between Germans and Americans in Hinds et al's (2013) study, and, whilst language management policies were sometimes remarked upon, they never appeared to cause misunderstandings unless applied strictly, such as when fellow Italians solely communicated in English in Team A even in bilateral communications. The evidence from critical incidents suggests that within teams which displayed serious language asymmetries, such as Team A, B and Z, language proficiency was a major contributing factor. For instance, in Incident A(ii) the Spanish partner (whose English was described as "*terrible*" (Alberto) by the Project Director) misunderstood the instructions for the report.

Overall, asymmetries in language proficiency were found to be the greatest predictor of misunderstandings in globally dispersed teams. Teams with similar or uniformly high language proficiency were unable to recall any misunderstandings after being directly asked about these. As many incidents occurred between people of similar culture (such as Spanish and Italians in Team B) as between those of different culture (such as British and Chinese in Team Z). No incidents of misunderstandings were recalled when teams with a *lingua franca* worked together and shared a similar level of English proficiency, such as Teams C, D and E. This is in keeping with sociolinguistics literature which finds that people are often more alert for the possibility of misunderstanding when they do not share the same native language (Sweeney and Zhu, 2010; Charles and Marschan-Piekkari, 2002). This awareness appears to also translate to virtual settings so that only groups such as Team A, with several participants who lacked confidence in their English level, observed misunderstandings.

Most non-native English speakers accommodated those who had low English proficiency by communicating in simple language and noticing those who appear to understand less, a finding reflected in business communication literature (for instance Sweeney and Zhu, 2010). This attitude

aids calibration processes so that multi-lingual teams are iterative in their approach to communication, checking and validating their understanding, and in most teams request clarification when it appears necessary. There were some exceptions to this such as Team D where participants in online meetings were particularly quiet and unresponsive. However, in general linguistic accommodation is an important preventative factor for misunderstandings in global teams which have relatively symmetrical language proficiency.

Whilst global teams tended to effectively avoid misunderstandings when using synchronous technologies or face-to-face, when means of communication were not adapted to the needs of the group, this tended to result in memorable misunderstandings. This was most commonly caused by written instructions whether by email or as contained within a document such as a project proposal. In such cases of written communication, misunderstandings could occur through misinterpretation, particularly when participants did not check their understanding, in part due to reluctance in GVTs to cross boundaries (Connelly, 2015). Indeed, no damaging misunderstanding in the GVTs covered began during face-to-face meetings or during conference calls. Typical examples included misinterpreting contracts (Incident Z(ii)), proposals (A(i) and Z(ii)), or emails (A(ii) and O(iii)). The opportunity to quickly check understanding in synchronous contexts was usually taken up; Incidents such as O(iii) where Bianca quickly replied to a misunderstood email were rare in this context. Therefore, in the incidents in this thesis, the causes of misunderstandings were most often the combination of language proficiency asymmetries and using asynchronous communication alone for tasks when both transmission *and* querying of information were needed.

These contributing factors – language asymmetries and asynchronous communication - only relate to what triggered the occurrence of a misunderstanding and do not imply whether a misunderstanding will be a minor interaction, or one which comes to define a team's future interactions. That is, in global teams, language asymmetries and asynchronous communication were the seeds in a potentially damaging incident, and these seeds would only grow in certain conditions depending on how they are reacted to. Figure 1 displays three potential turning points in a misunderstanding between global team members: whether a misunderstanding is recognised; whether emotions are contained or not; and whether blaming behaviour is resisted. These transition points are explored below with a discussion of which of the mediating factors contributes most to the pathway of a misunderstanding.

Transition point 1: Recognition

The first transition pathway in a misunderstanding in GVTs was whether a misunderstanding was recognised. This transition point was most closely linked to ICT selection and use: unrecognised

misunderstandings found in this study occurred in teams that had no further opportunities to communicate using synchronous communication. Technology's role here is predicted by Media Synchronicity Theory (MST) in that poor selection and use of technology contributed to incidence and resolution of misunderstandings. For instance, most misunderstandings in this study began over email or other written communication, such as those in Team A and B. Asynchronous technologies are considered by MST as functional at conveying information but poor at building understanding and so are a good predictor for misunderstandings when used alone for instructing others in a global team. For instance, Incident A(ii) lasted several months as instructions were sent via a proposal document and email. The misunderstanding was only realised at a face-to-face meeting, the most synchronous communication medium. The two unrecognised misunderstandings in this study both occurred at the end of project when no furth synchronous communication was possible, implying the importance of discussion and reaction to recognising misunderstandings.

In Incident A(iii), a misunderstanding which was realised over email, the process of realisation also demonstrated the inefficacy of email in creating understanding when email is used slowly and across the whole team: several public emails, followed by phone calls in the native language of participants, and finally face-to-face meetings were needed before the misunderstanding was fully realised. This suggests that in the teams involved in these incidents, media synchronicity was not skilfully selected during incidents of misunderstandings which led to incidents becoming damaging to team cohesion and task progression. In other teams, such as Team B, where project managers explicitly selected suitable communication tools to build understanding (such as frequent telephone conferences, check in phone calls and emergency face-to-face meetings), incidents of misunderstanding were rare and recognised more quickly despite severe language asymmetries and dealt with rapidly when they did occur. This indicates that skilful media selection and leads to misunderstandings being quickly recognised even in the presence of language asymmetries.

Transition point 2: Emotional containment

Once a misunderstanding is recognised, the second transition point is emotional containment. The conditions mediating this transition were whether one side attempted to blame another for a misunderstanding, and empathic measures. Blaming behaviours tended to amplify emotions during a misunderstanding, where power was exercised towards laying the responsibility on the person who misunderstood, rather than the initial speaker. This meant that the misunderstanding became an exercise in assigning blame (and defensive reactions) rather than redress and reflection, leading to conflicts and so reducing the ability in the group to compromise and to make sense of why incidents occurred.

In groups where blaming behaviour was avoided this was due to emotional responses being modulated and contained. Several protective factors and potential interventions were identified in the study which helped teams to navigate misunderstandings, gain benefits and ensure damage was minimal.

Some factors help teams to contain emotional pain and aggression during misunderstandings. As covered in the contributing conditions section above, linguistic symmetry and communication skills (including the ability to select and recognise the affordances of different communications media) help global teams to ensure that minor misunderstandings do not develop into longer incidents. In addition, strong interpersonal relationships were also associated with managing misunderstandings when they occurred. Teams with strong rapport and trust were less likely to turn a misunderstanding into a conflict.

Misunderstandings which became damaging were often characterised as the result of deceit by one party, that some participants were attempting to give the impression of a misunderstanding whilst in fact simply underperforming. But conversely, even deceitful behaviour could be passed off as a misunderstanding if interpersonal relationships were sufficiently strong. For instance, Incident O(ix) took place in a team with strong rapport and affect-based trust, accrued over several years of working together with one partner claiming not to have understood a task and not implemented a key objective at the end of the project. Whilst frustrating, the affection between partners meant that the participants modulated their responses and did not lose their emotional control or blame the participant, even saying "*I love [this person] it's nothing to do with [them]*" (Elisabeta). The study also found that when empathic measures such as remaining visibly calm during sensitive discussions and allowing difficult emotions to be expressed and addressed, could help contain the team's emotions and avoid blaming others for incidents.

The cases where emotions were not contained were those in which responsibility for the misunderstanding was assigned to an individual or sub-group. The ability to assign blame in a GVT appears strongest in face-to-face meetings, again, showing the crucial communication role of such meetings in hybrid teams. For instance, in Incident A(ii) the more powerful actor (Project Manager Alessia) was able to evade responsibility for her role in causing the misunderstanding through inadequate instructions and indicating by email that the report was acceptable when it was not. This face-to-face setting meant that a full discussion of the incident could occur, and that discussion was likely to lead to the assignment of blame on the party with less consolidated power, particularly given than CMC communication lessens awareness of differences in social status between team members (Ocker, 2007). A face-to-face setting appears to give the powerful more control, including

the ability to assign blame for a misunderstanding. Given that escaping responsibility can be a function of power (Bauman, 2013) blame is an effective tool for those with greatest power in a team to assign responsibility on others.

When blaming behaviours are present during misunderstandings within teams with greater language asymmetries, language has a multi-faceted role including opening a schism between those with good and (relatively) poor *lingua franca* proficiency. Group identity around linguistic proficiency is relatively novel in the global working field. Whilst language has been associated with identity in other studies, notably Hinds et al (2014), only Tenzer and Pudelko (2017) have fully articulated that language proficiency is also a potential identity group, that is, in a global team, those with lower linguistic ability in the group's *lingua franca* may identify with each other. This suggests that a misunderstanding can force participants in a global team to undergo identity work (Sveningsson and Alvesson, 2003) with regards to their language proficiency and feel part of a group which is in some ways subordinate to the rest of the team. This process was demonstrated Alberto's comment that a misunderstanding "*caused an unbalanced situation between the ones who were with better English and the ones with poorer [English]*" (Alberto). Therefore, when misunderstandings were not effectively contained, they put team members with poorer English in a weaker position; their lack of basic communication capacity in English was assumed responsible for the misunderstanding.

Exploring this blame dynamic further, the combination of authority and linguistic skill can alter the discourse and also perceived reality. The other parties in the misunderstanding – the listener and other observers – may accept that the blame lies with the listener who misunderstood the message rather than the speaker who may have communicated poorly and not followed up effectively. Manipulating the discourse around a misunderstanding disempowers the person with lower language proficiency as they are placed in a weaker position in the team in terms of status and communication ability. By altering the discourse, the speaker (usually the person who sets the instructions) can escape responsibility for their part in the misunderstanding around communication design. This resulting disempowerment is part of what makes redress by direct participants so difficult to achieve: they usually require help from allies in the wider team to successfully resist and alliance building is more difficult to achieve at a distance (Toomaneejinda and Harding, 2018; Kangasharju, 2002). This mechanism implies that blame for a misunderstanding may be more common in global teams than collocated teams.

Transition point 3: Resistance to blame

In damaging misunderstandings there is a further and final transition point: after an uncontained emotional reaction, usually triggered by blaming behaviour, team members can collectively resist

and create an opportunity to reflect and redress, to make sense of the incident. This phenomenon was often associated with leadership emergence, where someone not in the formal management team manoeuvres the discussion to address underlying issues that caused the misunderstanding. This finding elaborates on Bjørn and Ngwenyama's (2009) conclusion that, whilst communication breakdowns manifest at the work process level, fully resolving such breakdowns requires critical reflection at other levels. For instance, following the realisation and resolution of the misunderstanding in A(ii), which was blamed on Andrea, the team, particularly Anna and Alessandra, collectively diverted the meeting agenda to discuss strategies to ensure the team would function better to avoid such damaging incidents in the future.

Sensemaking processes were not entered following the resolution of every misunderstanding. The potential for sensemaking following an uncontained emotional reaction appears dependent upon a) the communication setting and b) whether the emotional reaction of participants was viewed as appropriate to the misunderstanding triggering emergent leaders to action. These factors did not interact in a linear, dichotomous fashion, where synchronous communication and controlled emotions led to positive results. Instead, what mattered most was whether the setting was public or private, how hurt participants felt, and how they expressed their pain. For instance, a restrained, hurt reaction by email would also be unlikely to trigger sensemaking processes as few were aware of any issue and leaders were not prompted to act. When there was a balance of emotional release and restraint, public reckoning and private conversations, resistance to blame and sensemaking were most likely to be seen.

In Incident A(iii), an incident which occurred over email, resistance to the blaming behaviours could not be fully expressed. No third party emerged to redress the situation of blaming Anna and Ada and begin a conversation about why the task had been misunderstood; the subjects of misunderstanding stopped replying to emails and had to be coaxed during phone calls, meetings, and assistance to accept their 'responsibility' whether justified or not. Conversely, in A(ii) at a face-to-face meeting, Alessia's largely unjustified anger towards Andrea was met by her own impotent anger and a long, largely humiliating argument that derailed the remaining time of the agenda on that day. This may imply that when anger is publicly expressed in a synchronous setting upon realisation of misunderstandings it can be experienced humiliating and trigger feelings of unfairness and the need for redress and prevention. So whilst public blame dynamics can lead to a decrease in team cohesion in all settings, when expressed during a meeting it created the possibility to engage in sensemaking at the meeting; the email exchanges in Incident A(iii) afforded no such possibility. Having a 'natural' opportunity for a reflective conversation, and public recognition that there had been a

misunderstanding meant that the participants' feelings of frustration, shame and anger could be addressed and worked through. Public recognition of misunderstanding and public blame are both needed to create the opportunity for leadership emergence and discussion to make sense of the group dynamics that underlay the misunderstandings. Otherwise, the groups continued to ignore underlying conditions that caused misunderstandings such as discussing complex topics over email.

As shown in the literature on disagreements, some disagreement strategies such as agreement with an oppositional view (Toomaneejinda and Harding, 2018) are much more effective when face-to-face. Subtle discourse moves such as using the body and eye contact to show allyship with someone in disagreement makes resistance much more socially effective. Such findings appear to translate to misunderstandings. By email, it was difficult in Incident A(iii) to support Ada and Anna, in part as they did not communicate their pain with the team about the process. The lack of recognition of their difficulties meant there was no potential for building allies across the team, leaving both isolated and tacitly accepting the blame for the incident. In contrast, the face-to-face meetings in Incident A(ii) and A(iv) allowed opposition to be carefully built at social events such as meals with the result that highly sensitive meta conversations about the process of communication in the team could be carried out openly and without further conflict.

Types of effects

Once a misunderstanding occurred, a variety of effects were categorised, which differed depending on the pathway the incident took. Whilst each misunderstanding was unique given that incidents occurred with different teams, characters, and stages in the project, by categorising the misunderstandings using the typology from Chapter 5 and comparing staging and effects between categories several common themes emerge as shown in Table 14 below.

Type of misunderstanding	**Stage of project**	**Common emotional reactions**	**Common effects on teams**
Unrealised misunderstanding	Close to end of interactions	Frustration at situation	Ineffectiveness Working at cross purposes
Contained misunderstanding	Any stage	Anger before realisation of misunderstanding Embarrassment upon realisation of misunderstanding	Support norms of resolution Lost time Improved team atmosphere

Damaging misunderstanding	Commonly at early stages	Anger upon realisation of misunderstanding Shame upon realisation of misunderstanding Anxiety amongst observers	Blaming behaviour and splits in team Significant ineffectiveness Opportunity to address underlying issues through sensemaking Damaged team atmosphere

Table 14 Effects and staging of different types of misunderstandings in incidents identified in this study

In terms of the stage that the misunderstanding occurs in, it is particularly important to note that the unrealised misunderstandings identified in this study occurred only at the end of interactions. This finding should be treated with caution given the difficulty in identifying unrecognised misunderstandings through interviews. Yet this finding suggests that, in global teams, significant misunderstandings are generally recognised, usually during face-to-face or remote conversations and that most global teams have the capacity to at least recognise misunderstandings, provided there are opportunities for discussion.

Whilst misunderstandings appear to usually be recognised in global teams, when they occur early in project interactions there is a greater risk that they will be damaging to team cohesion and atmosphere. Team atmosphere is a relationship category including trust, respect, cohesion, openness, and liking (or rapport), all components of group atmosphere affected by inter-group conflict in Jehn and Mannix's (2001) study. The damaging misunderstandings identified in this study occurred in the first half of projects, often arising from interpretations of the original written proposal between unfamiliar colleagues. In contrast, contained misunderstandings occurred throughout the project lifecycle. This indicates that damaging misunderstandings occur before a strong social order has formed; disputes over misunderstandings have been damaging where there are weak group norms. Contained misunderstandings tend to occur when a robust social order has formed in a group, and groups can navigate misunderstandings more safely.

The effects of misunderstanding differed greatly between types, as discussed in the previous chapters. Yet the common effect between the three types was ineffectiveness. The time taken to recognise and resolve a misunderstanding, whether long or short, distracted the team from their tasks so that this time was spent away from their other tasks. In damaging misunderstandings and unrecognised misunderstandings, the result of the misunderstandings was that the team worked together less effectively, whether some members avoided others, or knowledge transfer was less

effective. As might be expected, ineffectiveness was much lower in contained misunderstandings. Indeed, when misunderstandings were recognised and contained, 'ineffectiveness' is better conceptualised as 'lost time' since it led to no general ineffectiveness in the team due to damaged relationships or working at cross purposes in the medium-term, only distraction during the period before recognition and during the resolution process. In terms of team outcomes, the effects of a contained misunderstanding are much milder and less transformative which suggests the importance of mediating the pathway so that misunderstandings are utilised as moments of learning rather than creating schisms in a team.

For damaging misunderstandings, the period of ineffectiveness could be short-lived if it were followed by sensemaking. The benefits of engaging in sensemaking were clear from both the literature and from incidents. Public resistance to blaming behaviours pushes the initial communicators to accept their own culpability in a misunderstanding. This allows the team to engage in redress and reflection to identify underlying issues in the team and derive some benefits from an otherwise damaging interaction. Engaging sensemaking following a damaging misunderstanding also supports social order adaptation (Orr and Scott, 2008). In incidents where sensemaking was engaged, teams made mutual adjustments and set ground rules for interaction after the team notice that they have had an unnecessarily difficult experience, e.g. after Incident A(ii) where new rules and leadership roles for meetings were set. However, even where sensemaking processes were engaged the initial split caused by the misunderstanding was rarely fully overcome: the feeling of ostracization tended to persist, even if the schism became less obvious and pronounced.

The type and effects of these incidents once they occur appear to be mediated by several factors, perhaps most notably by patterns of communication in a team, and how power is wielded. Clashing communication habits can affect how a misunderstanding is dealt with particularly when participants in an incident have different communication norms. For instance, most teams had individuals who were comfortable with dialectical discussion and open to confrontation and others who were not. In such teams it could take longer to form a strong social order with agreed ground rules for communication: each person was bringing their own personal and cultural terms of communication to the team due to the multi-cultural nature of the team. Such differences in communication style can make the process of realisation and redress a painful and damaging experience in teams because they have not yet formed effective dispute resolution mechanisms. How a team negotiates the challenge in GVTs of forming ground rules for group interactions and for knowledge transfer – particularly concerning instructions – is crucial in terms of the extent to which

a misunderstanding is recognised and how it is engaged. Upon recognition, when authority in a team is directed towards blaming the misunderstanding upon one party (often towards the participant with lower *lingua franca* proficiency) this can be damaging to the team cohesion. Conversely, misunderstandings are most often contained when the participant with greater power admits their culpability and this is reciprocated by the other participants.

Hidden disagreements

As discussed in Chapter 5, hidden disagreements differed in several significant ways to misunderstandings. Whilst the two types of discord share many common features it is useful at this point in the study to delineate the two phenomena. First, fundamentally, a misunderstanding is a state of ignorance, whilst a hidden disagreement is a state of dispute. Second, misunderstandings are caused by erroneous communication whilst hidden disagreements are due to lack of communication, whether purposeful (as in the case of undiscussed disagreements and repressed conflicts) or accidental (in the case of contained disagreement). These differing features and causes mean that there are some significant differences in conditions, effects, and mediating factors. These are discussed below with reference to relevant literature.

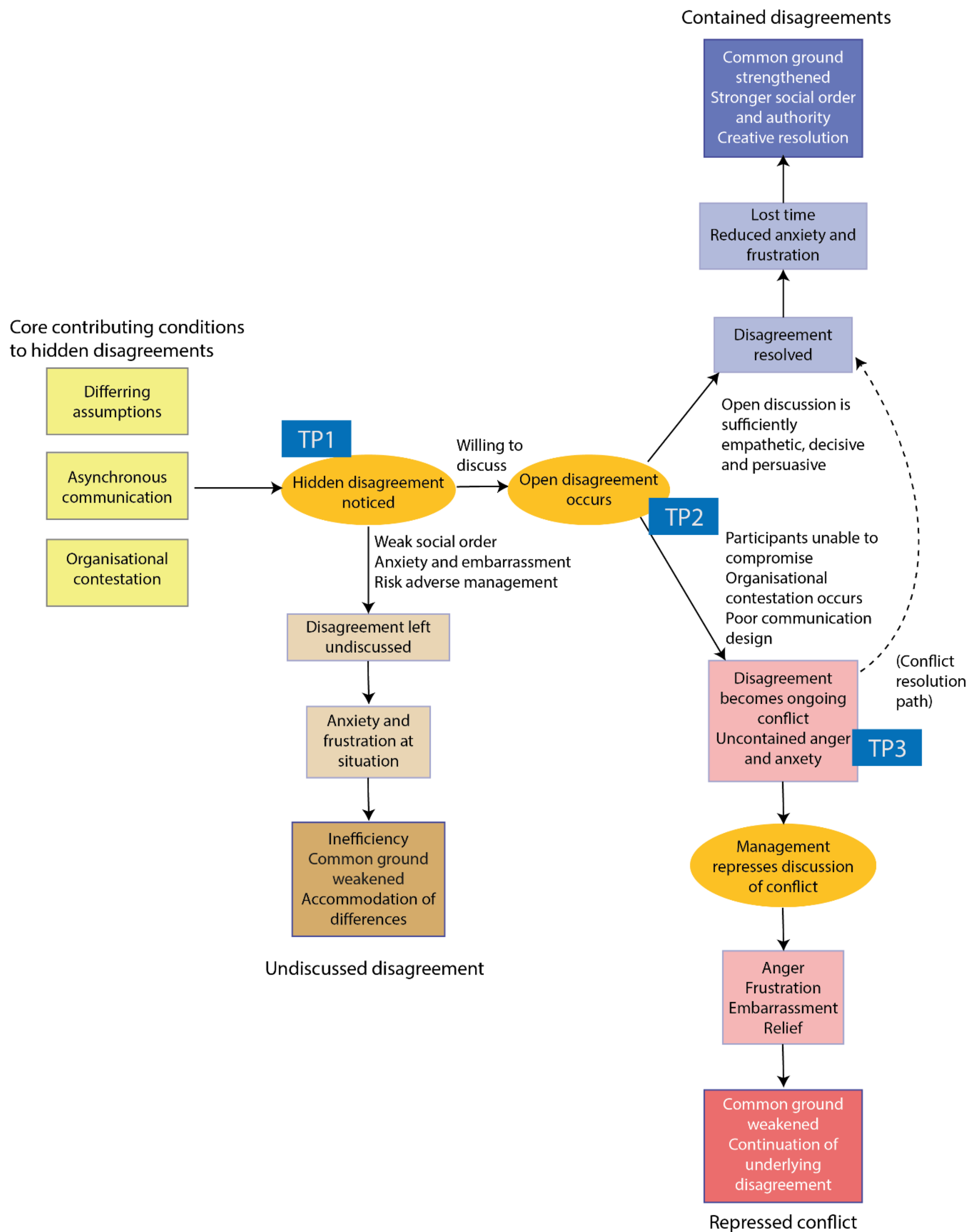

Figure 22 Model of hidden disagreements: contributing factors and pathways for undiscussed disagreements, contained disagreement and repressed conflicts. Transition points are highlighted in blue boxes and abbreviated e.g. 'TP1'

The model developed for hidden disagreements, presented in Figure 22 above, shows three transition paths: leaving a disagreement undiscussed (TP1), discussion of disagreement (TP2), and repression of an unsuccessfully discussed disagreement (TP3).

Figure 22 displays what the findings imply for the pathways of hidden disagreements in GVTs. This figure was developed by examining the conditions, effects, and pathways for each of the 29 disagreements in this study, to understand what was common to different types of disagreement and presenting the types in a single model. The model implies that any disagreement can be left undiscussed, contained, or repressed depending on how the team navigates three transition points: allowing discussion, management of resolution, and repression or resolution of conflict. Whilst the effects of these types of disagreements are divergent, the conditions for disagreements are common in global teams, and tend to occur when teams use asynchronous communication, possess differing assumptions, and have organisational contestation.

Contributing factors

Of the contributing conditions, only 'differing assumptions' was related to all three types of hidden disagreement. Differing underlying assumptions should be expected to be present in disagreements by the definition of 'disagreement' (the expression of a view that differs from that expressed by another speaker (Sifianou, 2012)). However, differing assumptions has a further implication in international, interorganisational teams: mixing individuals of diverse cultures, nationalities and sectors mean that a greater variety of work-based assumptions is likely to be seen.

Yet differing assumptions were not sufficient for a disagreement to develop in global teams; these also required contestation for power or asynchronous communication. For instance, in Incident A(iv), there were different assumptions about the purpose of the project and leadership of the team, but these assumptions could not be addressed directly due to underlying contestation between groups and individuals that felt risky to express disagreement directly. Organisational contestation was evident in many cases of disagreements, particularly those which were repressed or avoided. Power has been researched in disagreements research as both a motivator and an outcome; for some participants the end goal of a disagreement is increased power, and power can shift because of disagreements (Rees-Miller, 2000). As an initial condition to cases in this study, contestation produced disagreements by activating differences of opinions into opportunities to continue their struggle. This was particularly the case in Incident B(i) where a series of micro-disagreements were continually raised due to interpersonal and interorganisational clashes.

In contrast asynchronous communication contributed to Incident B(ii), when the purpose of the project was assumed by some to be the development of a new online game inspired by another, and by others as a faithful translation of an offline game to an online game. The reason this disagreement remained hidden was lack of opportunity for open discussion until the first face-to-face meeting; email and reading the proposal did not afford the possibility for in-depth discussion.

Communication media were a contributing factor in many disagreements in global teams. The role of CMC in disagreements is recognised in the pragmatics field, with the norms and perceived functionality of different media channels decisively shaping how participants interact in disagreements (Georgakopoulou, 2012). Ground rules for communicating online have been found to be fractured and subjective: perceived deviation on how to disagree remotely is a cause of conflict (Graham, 2007). The roots of many disagreements in this study lay in unexamined assumptions about the group and tasks which, as with misunderstandings, often became visible upon discussions, whether face-to-face or remote.

Transition point 1: allowing discussion

Pragmatics literature suggests that disagreement is a 'dispreferred action', in that participants in a conversation prefer to avoid disagreement unless it is necessary (Sacks et al, 1978). This offers some explanation for why every set of contained disagreement does not lead to a disagreement upon discovery: usually disagreement is avoided as an unwelcome distraction. However, the mechanics of remote disagreement mean that entering a disagreement is an even more complicated and onerous task than in face-to-face teams. Studies of disagreement (Toomaneejinda and Harding, 2018; Alzaharina, 2020) have shown that in face-to-face settings, subtle disagreements occur with great frequency and often without the need for direct discussion. Care and attention on how to disagree is particularly emphasised by English of Second Language speakers who prefer non-verbal disagreements (Toomaneejinda and Harding, 2018). This can be understood as a tactic to avoid directly employing their linguistic skills for second language speakers who are sometimes unable to "*express complex ideas or even feelings*" (Anna).

In global teams, the option to have a non-verbal disagreement is rarely available outside of face-to-face meetings. Remote disagreements are usually direct and so have more potential to be conflictual. In global teams, outside of face-to-face meetings teams use communications technology which do not provide the affordances of alliance building over disagreements such as eye contact or body shifts (Kangashuarju, 2002). The first transition point in disagreements in global teams was whether a disagreement was explicitly raised or ignored. The frequency with which disagreements were ignored without discussion in these teams implies that not expressing disagreement is a common feature of global teams; technologically mediated interactions mean non-verbal disagreements are rare and internationally diverse teams often lack of common 'ground rules' due to differing norms on how to disagree politely.

In teams that rarely engage in open discussions, hidden disagreements are more likely to occur; lack of discussion was identified as a trigger for hidden discord in Chapter 5. For teams with weak norms

for open discussion, deciding to avoid opening a disagreement can even be a feature of a team which lacks a culture (or capacity) for open and creative discussion. Team D was particularly noted to have few opportunities for difficult conversations: "*In the project I feel like we don't digest enough, particularly about what we are supposed to deliver. There's little sharing about what we do. There's never been a process design about when we meet. We almost never get the opportunity to have an uninterrupted creative process*" (Interviewee D2). According to D4, "*I have this feeling that everyone is working on his bit, everyone is working hard and well. But sometimes I think there's a big gap between each part. So, they are not feeding one another as it could* be" (Diana). This tendency for avoiding difficult discussion was notable in Incident D(i). This Incident related to the writing of a collaborative book published to provide a baseline of definitions for the project and its audience. Led by an Italian University, the chapters and concept were conceived internally to the University, and the writing was largely siloed so that few discussions were held between authors or with the wider team. This writing process meant that many in the team found the book confusing upon publication and no forum was opened to discuss points of confusion and disagreements over definitions remained undiscussed.

The decision to ignore a disagreement is often difficult to manage when it concerns team roles of purpose and can lead to a sense of paralysis. In Incident B(iii) over who was the main leader of Team B, the main leadership roles were held by Beatrix and Alessia. Beatrix, the Project Director, was aware that there was confusion between her and the other manager, Alessia which made her unhappy. Yet Beatrix decided against raising the disagreement with her colleague and Alessia did not explain why she had stepped away from the role: "*she totally did not communicate clearly at all…. I think that partly maybe she was embarrassed*." (Beatrix) Because the disagreement remained undiscussed "*I don't think we resolved it, to be honest, entirely. I mean, resolved it in the sense that I took over. I feel terribly resentful, obviously, because that was not the intention*" (Beatrix). This disagreement overlapped in terms of timing with other disagreements, particularly the interorganisational conflict, Incident B(i). The decision not to open disagreement B(iii) was made in the context of other conflictual interactions and the capacity to simultaneously deal with multiple incidents of discord: "*probably [the level of conflict] did get paralyzing to an extent at times*" (Beatrix). The effect of taking this decision on the rest of the team was to create confusion and frustration, and to reduce the effectiveness of communication and decision making: "*we never really knew who to address in the end*" (Bianca).

Mode of communication also had an impact on this transition point. In wider disagreements on topics such as the purpose of a project or roles, remote disagreements appear to often be avoided.

When communication occurs either by email or in group synchronous settings, it may be considered inappropriate to discuss potentially damaging disagreements by some managers who are sensitive to further damage to shared group rules of interaction.

Transition point 2: discussion towards a managed resolution

After a disagreement has been openly entered, interactions either result in a resolution (often through compromise) or conflict between participants, that is an expressed struggle between team members (Panteli and Sockalingam, 2005). The resolution process can take several pathways such as diversion (or focus shift) and humour, or, when these failed, resolution using negotiation, and resolution using authority (Marra, 2012). These types of disagreement resolution are present in the pragmatics literature yet whilst they have not before been applied to global teams all four techniques were evident in the incidents of disagreement. For instance, Incident O(ix) used a shift in focus from an embarrassing disagreement over a partner's poor contribution to resolve the disagreement (diversion), Incident E(iii) involved the Project Director using self-deprecation to resolve a disagreement (humour), Incident A(i) involved lengthy negotiation over contested terms such as social economy to resolve (negotiation), whilst Incident O(viii) required a decision imposed by an emergent leader to resolve the disagreement over budget allocation (authority). This shows that disagreements are dealt with using comparable techniques whether teams are face-to-face or remote.

The data gathered by this research suggests that most disagreement incidents which were resolved before becoming conflictual were discussed and resolved in face-to-face meetings (Incidents A(ii), A(iv), B(ii), E(iii), O(ix) and O(xiii)). Whilst this could indicate that face-to-face disagreements were more memorable to interviewees, it also supports findings in the sociolinguistics literature which finds that disagreement strategies are as often non-verbal as verbal (Toomaneejinda and Harding, 2018) and that techniques such as use of gaze and shifting shoulders are effective in disagreeing in subtle manners which are less likely to become conflictual. Such methods can indicate the formation of an oppositional alliance without directly confronting others which lessens the potential for participants to lose face or authority. The study found few examples of resolution of disagreements over text, besides the revision to meeting minutes in Incident A(iv). At times face-to-face meetings were explicitly used to raise and resolve disagreements whether these meetings were pre-planned (B(ii)) or specifically organised (O(xiii)). In such meetings, even when there is a "*fight*" (Bianca) as in Incident B(ii), alliances can be more effectively formed to force all to recognise an agreement on a pathway, even where there is no consensus on the decision.

In face-to-face studies of speaker of English as Second Language there is a high degree of mitigation in disagreements which suggests participants are able to reflect on the high potential for disagreements to be damaging if not well managed (Toomaneejinda and Harding, 2018). In incidents where disagreements transitioned into conflicts, the initial emotional tenor of interactions tended to be higher. In part this was often due to breaking norms of interaction in the team, such as self-centred behaviour in Incident O(v) where a temporary chairperson in an EU working group proposed a policy to would support her member state, a move which was highly discouraged. More commonly, the ground rule broken was publicly sharing negative feedback. This was shown in Incident A(ii) where most partners shared public criticism of a research report, Incident D(iii) where the quality standards of the project were criticised as being too low, and Incident B(i) where two partners directed criticisms at each other about their ability to do their tasks. Such norm breaking behaviour made swift resolution of the disagreement difficult to achieve and led to a struggle between participants.

The stage of the team also played a significant role in whether a disagreement was resolved. Incident A(i) at the beginning of a project was resolved despite many conditions that may have led it to be repressed (interpersonal difficulties, surprise at disagreement, delay in recognition and widespread annoyance). In this incident, competition over definitions meant mutual understanding and agreement took longer to achieve and the struggle to accommodation competing visions meant clarification cycles on definitions were rarely invoked. However, as the incident occurred early in the project when members were forming ground rules, this challenging disagreement was patiently seen through to resolution over a series of months. Patience at an early stage in a team's history reflects the tendency towards swift trust in virtual teams where teams permit a grace period whilst members become familiar with each other.

A final condition in whether a disagreement is managed before it becomes conflictual is the quality of interpersonal relationships. In Incident B(i) over the role of an IT partner, the breakdown in relationship between a Spanish and Italian partner led to an unwillingness to compromise and heighted emotions of anger and shame. Particularly at a distance where interpersonal differences were more difficult to resolve, the lack of cooperation between these partners and the high emotional tenor of their interactions meant that the disagreement became a persistent struggle between the partners.

Transition point 3: conflict resolution or repression

As disagreement is a dispreferred action (Sacks et al, 1978), participants usually modulate their speech by prefacing, delaying, and softening their input to conversation (Levinson, 1983; Pomerantz,

1984: 65). When participants are unable or unwilling to modulate their communications, the emotions triggered often result in a conflict. In such cases, resolution of conflict must be either negotiated or imposed from a powerful member of the team (Marra, 2012). Incident B(i) was the most detailed example of conflict repression in this study, where, after a long series of disagreement, the project director shut down the conflict by stating that they "*they could not continue like this*" (Bianca). Whilst this repression meant that was no consensus on the disagreement, the conflictual behaviour ended at this point. In a similar conflict, O(viii), the resolution process was completed after the challenges part ceased searching for avenues of redress and accepted the resolution proposed by Carlo. In both cases the disagreement continued but was no longer allowed to be expressed.

The pathway of conflicts and disagreements depend upon the context. How expected a disagreement is and how expected it is to disagree with superiors and colleagues changes by situation such as problem-solving meetings (Angouri and Locher, 2012) compared to outward-facing client interactions. Context has been established as an important factor in the severity of disagreements, with personal traits, relational histories (Sifianou, 2012), cultural composition of a group (Koutsantoni, 2005) and gender (Makri-Tsilipakou, 1995). One motivation to repress a conflictual disagreement is the potential to lose face (Angouri and Locher, 2012). In B(i), the relationship breakdown and frequent norm breaking during public critiques over several months made it clear to Beatrix (the Project Director) that complete resolution was unlikely to arise without removal of one of the contesting partners from the team; she chose the less drastic action of 'forbidding' further conflict and thereby stopping further public attacks on the face of other partners. The relationship breakdown between partners had grown stronger over time, so that more members of the partner organisations were brought into the disagreement. It also appears that the Spanish partner's proposed solution to the disagreement grew more extreme: initially calling for a recalibration of roles so that tasks could be followed through by a single partner, they later called for the complete removal of their rival partner and transfer of their tasks to the Spanish partner. This is reflective of a trend in disagreements in global teams where, if not resolved quickly, discord in a global team can lead to positions becoming further apart and compromise becoming less realistic. In this Incident, the Project Director Beatrix repressed the conflict and did not allow further discussion on the topic. This was effective as neither the Italian nor the Spanish partner had worked to create a wider alliance who supported their position, perhaps due to the overall weak interpersonal ties between the whole partnership, a condition which allowed the conflict to arise.

In this context there were several cases resolved through the emergence of leadership (Incidents A(iv) and O(viii)). This suggests that conflicts are experienced as a form of communication failure which activate potential leaders to intervene in the context of failure of conventional measures. Ground rules that support disagreement, such as a shared understanding of what is routinely expected, allowed, or prohibited in different contexts, allow teams to avoid unnecessary conflicts that derive from norm-breaking and make repression of disagreements less likely. Norm breaking is not part of the expected behaviour in teams and communication processes are rarely set up to deal with difficult conflicts between team members; this may explain why global team managers can prefer to simply repress a conflict despite the drawbacks of doing so.

Types of effects

Once a disagreement developed, a variety of effects were categorised, which differed depending on the pathway the incident took. Categorising the disagreements using the typology from Chapter 5 by comparing staging and effects between categories several common themes emerge as shown in Table 15 below.

Type of hidden disagreement	**Stage of project**	**Common emotional reactions**	**Common effects on teams**
Undiscussed disagreement	Any point	Anxiety and frustration at situation	Avoidance of conflict Ineffectiveness Common ground weakened Unexpressed differences of opinion continue
Contained disagreement	Often early stages	Anger before resolution of disagreement Relief of frustration and anxiety	Lost time Common ground strengthened Stronger social order and authority Creative solution to differences of opinion
Repressed conflict	Any point	Uncontained anger and anxiety before repression Anger and frustration for thwarted participants following repression	Ineffectiveness Common ground weakened Unexpressed differences of opinion continue

	Relief and embarrassment for others	Avoidance of conflict

Table 15 Effects and staging of different types of hidden disagreements

Perhaps the most interesting outcomes are seen in incidents of contained disagreement. In these cases, the result is often consensus on a topic, for instance around definitions or the purpose of the project. This is a more comfortable psychological position to be in, as this issue can be considered resolved. This consensus should be understood as creative; innovation often follows diversity of opinion in globally dispersed teams (Gilson et al, 2015) and in disagreements more widely (Chiu, 2008; Marra, 2012). Having contrary assumptions may prompt power struggles and discomfort, and having a modulated disagreement means that a creative third path can be forged, rather than repressing or not discussing the disagreement. In this sense, a successfully managed disagreement allows the creative fission that occurs during disagreements to occur. Hiding a disagreement either results in suppression of discussion or continuation of the status quo, making innovation less likely. Disagreements can help stimulate attention in a group, and consider more perspectives increasing micro-creativity (Chiu, 2008). In addition, emotionally contained disagreements in teams who have developed a good rapport can strengthen sociability (Schiffrin, 1984) as they navigate differences in opinion without interpreting this as a personal attack.

Given the majority of disagreements incidents in this thesis were either supressed or undiscussed, global teams commonly struggle to navigate and resolve disagreements. Hidden disagreements offer a further barrier and explanation for why creativity is often lower in GVTs. One of the effects of hiding disagreements is anxiety, since when team members feel unsafe, they are less capable of creativity (Cramton, 2005). Indeed, another role of avoiding disagreements is performative consensus: despite subjectively disagreeing, the front stage behaviour of the group is that they are in accord. When a group has a bias towards consensus this can restrict learning as even healthy disagreements are not voiced (Marra, 2012). The pathway in contained disagreement, where participants safely disagree may be encouraged in GVTs, mainly as the features of contained disagreement are allowing discussion and open disagreements result in creativity; it is in the interaction of differing opinions and the presence of open-mindedness and compromise that creativity occurs.

The effects of undiscussed disagreements and repressed conflict need to be understood in the context of the role of disagreements and conflicts in groups. The sociology of conflict has long shown that stimulating even heated discussions are conceptually opposite to communication breakdown, when interactions cease between group members due to interpersonal troubles (Simmel,

1908/1955). Conflictual disagreements prompt annoyance, irritation, anger, contempt, or disgust (Georgakopoulou, 2012); if these feelings are managed, group can be activated to resolve underlying issues such as contradictions in a task or purpose of a group, and at a basic level directly communicate with each other. When this annoyance is not acted upon through dialogue underlying issues are unresolved. For Incident D(i), an undiscussed disagreement over definitions, the lack of open disagreement meant there was little overt conflict where participants disagreed with the definitions, yet it also resulted in the team lacking a glossary of terms, or a shared baseline for practice. Without this baseline, there were constant inefficiencies over the purpose of the project due to a lack of shared understanding. This also meant that the silos between different sectors in the group were maintained to an extent, and that the outputs of the project were not unified but remained diverse. Into communicating the disagreement led to a missed opportunity to improve collaboration across the team.

When global teams avoid such discussions there is an opportunity cost in that the group loses the chance to strengthen sociability, trust and resolve issues experienced by the group, and increases the possibility of communications breakdown. Despite the difficulties in containing emotions at a distance, engaging with difficult disagreements has benefits: openly arguing over definitions of key terms in Incident A(i) resulted in a glossary of terms, and a complex application of definitions into learning outputs, applied in five European countries (Meeting minutes). It must also be acknowledged that opening disagreements in team was experienced as high risk in teams with a low capacity to contain emotions. Disagreeing remotely in highly emotive teams risked eroding the cohesion of a team and so there was a higher level of anxiety associated with disagreement.

Appendix 2 Data structure

Aggregate code	Second order theme	First order concept	Illustrative quote
VIRTUAL TEAM CONTEXT	**Hybrid virtual teams**	Too costly to meet together regularly	*"If you work on international projects you cannot work face-to-face all the time and especially in a bigger consortia. It's impossible, so." Clovis*
		Virtual teams mask difficulties	*"Maybe this person has a personal problem he lives in another country, you don't know the pressure he is under." Daphne* *"Sometimes we are masking problems. Then this is about to explode at some point." Elisabeta*
		Technology exacerbates difficulties	*"[Technology problems are] not superficial because it leads to more technical things. The instant messaging, sometimes the Skype is not working. The Adobe [Connect] is not working. I think those are technical things that can lead to deeper problems." Elisabeta*
		Smaller groups are easier	*"And usually in the small group you can create more empathy. So the other participants pay more attention to give everyone the possibility to speak, and they have a little more patience." Anna* *"[T]he larger [groups] were not so good based on the already described problems that people are not taking attention in the same extent. So the bigger or the more people were involved, the less good it was." Carl*
		Difficult to exercise control	*"Projects are not over-controlled in the sense that you know that everyone is really working always on the project, and the amount of time he should." Carl*
	Linguistic diversity	Other languages present	*"I was speaking Italian. They were speaking Spanish and Portuguese. And we were able to understand nevertheless." Carlo*

			"[I]t creates a better relationship or a sense of rapport if you can then just quickly swap to another language to explain a concept, or say, oh no that's not what I meant, I meant this thing in a different language." Claire
		Language used not fully accurate	*"There were various levels of English." Claire* *"[Lower English level] reduces the chances that I have to express myself in a very detailed way and express the correct thoughts. Because I have to find the easiest way to say it and this is helps the clearness of the communication, but it reduces the in-depth of the concept." Alberto* *"You feel a little judged because you're not speaking proper English so you are a little intimidated at the beginning." Anna*
		Concurrent translation	*"It was just to clarify the concept, and then we switched back to English. It was not that bad. We started talking briefly. It was just a function of the meeting, let's say." Bianca*
	Cultural and national diversity	Different cultures	*"It happens that there is a clash sometimes because there is no understanding of the cultural basis of certain behaviours, and so it may happen that there are, for example, big misunderstandings, even at personal levels, which can lead to people who not only don't understand each other but also start disliking each other." Eugenia* *"It can be difficult to separate differences on just fundamental almost philosophical disagreements from what's the cultural way of doing… things." Beatrix* *"What is important also is really this topic of concepts and cultures, using terms in different ways and some linking it to different experiences they had in their specific country or in their work, the field they're working on in that specific country." Berta*
		Organisational culture	*"[W]hat we export also often when we communicate, especially online, we export our organisational culture." Beatrix*

PATTERNS OF COMMUNICATION	**Channel specific communication**	Email/ asynchronous communication	*"It's difficult to communicate when you can't gauge somebody's response." Alessandra* *"Because things do get lost in emails and I think partners found it easier to speak rather than to write. Because it took ages to write anything if-- because you had to think about the grammar, how to spell it, and that thing." Claire* *"I feel that when you send an email it has to be deeper, more overall things" Elisabeta*
		Teleconference/ synchronous communication	*"I suppose I like to squash things quite early on. I don't really like them to become big problems. And I think perhaps our sticking to phone calls and trying to use that as our preferred way of communicating helped quite a lot as well." Claire* *"Sometimes [teleconferences] can cause misunderstandings. It's more difficult when you have webinar or a Skype call because you can't ask your neighbour "what did he say?"" Anna* *"When we have a Skype meeting, it's one hour and everyone needs to say whatever they want, and so there's really not enough time to go deeply and so it's really more difficult to me." Ada* *"If it's a long telephone conference and people are not really taking full attention, they are doing other things, sometimes it's not very productive." Carl*
		Face to face communication	*"In writing you… can very seldom resolve some critical situations. I think face-to-face is then really the best." Carlo* *"You can see the person, it's easier to understand, you can see the lips moving, and the sound is clear because you have the person in front of you, you don't have connection problems." Alberto* *"I think that meetings also helps to create relationships and relations between the people and then you'll understand better after that. If you go and have dinner together, then the day after, I think you understand better what people are saying." Ada*

	Clash of communication habits	Tendency to be straight in foreign languages	*"I have a lot of words my own language to allow me to say something that is not sharp. That is more much more difficult to express in English." Alberto* *"You can't be subtle, I guess. You can't. You can't be as careful when you're writing or speaking in a foreign language." Bianca*
		Different nationalities have different communication needs	*"[The Italians in the group] shared a way of working, which is 'we can definitely argue and it's fine'. That might have not been understood necessarily by others." Alessandra* *"There's different ways of dealing with the problem. So in some countries, a confrontation where you're shouting across the room is okay. It's not ok." Claire*
		English can be used to exclude	*"So this is I think the source of many, many problems which arise in projects that people communicate all the time in English then the native speakers think, okay, everybody understood but they didn't understand." Clovis* *"So that's the main challenge, comprehension during meetings when native English speakers speak." Alberto* *"In this case I have to say that English was a part of the problem because the manager, she was [also] Italian. We could have spoke, "How do you say…", we could speak in Italian, she could explain exactly what she wanted, but she never did." Anna* *"At the end of the project as well, we ended up delivering a product that was in English rather than in many languages. And we raised that quite early on, but then, of course, nobody had the budget to translate it all in different languages." Claire*
		Unbalanced communication	*"It takes a lot more time to write, a lot lot more time to write. So this in my experience in international working groups… it is not taken into consideration." Anna* *"You feel that you feel you have to make more efforts than you should." Alberto* *"The main problem is that the people communicate in English only. But the level of competence is different." Clovis*

			"You have more time to contribute, for instance, to a document, to a project, to activities that are planned. But when you have to speak…. It's faster. The situation is faster. And you can't think a lot about the proper word as you can do while you're writing an email." Bianca
		Meetings challenge your communication patterns	*"Most people that I work with, live in their country. Live in their native country. Right? So you never change. You're never challenged to examine your conversation patterns unless you get to European project meetings." Beatrix* *"Sometimes I become more German than I normally am in a meeting. And maybe the Italians become a bit more Italian." Beatrix* *"I remember my boss in one instance have to literally say, "Silence," to people in the room and it was effective. I've never actually seen him shout before. But someone needed to do something to shut it down." Claire*
	Inclination to collaborate	Different levels of commitment	*"The organisations very often, let's say, they see EU projects are just a way-- one of the less difficult ways of covering their own costs, their own fixed… costs…. And they use projects very much as a contribution to their own staff costs." Eugenia* *"I think that the problems of Project E were different. So it's a commitment by some partners and lower commitment by others, so I don't think there are really communication issues." Eugenia*
		Meetings force collaboration	*"Face-to-face in a meeting a small group is a much more effective way of moving something on quickly. And a quick meeting makes everyone think, "Oh, quick, right, we must do something."" Claire*
		Sectoral differences	*"It is easier to communicate in an international environment to collaborate with organisations of the same kind." Alberto* *"Some technical people don't understand sometimes why improvement studies are important, and maybe also the other way around." Carl* *"As a practitioner side, we were not satisfied with all the-- what a researcher would call a good result." Clovis*

RESOURCES PREVENTING DISCORD	**Communication competence**	Linguistic competence	*"When people communicate to me in my own native language, I can maybe immediately see what they're trying to say because some of the words-- I connect with what they're trying to say which other people might not." Ada* *"Because of the language, I was expected to be the one to represent and to communicate, but then the coordination was not-- and officially it's not on me. It's just expected and that's because of the language." Elisabeta* *"Her team, who pretty much exclusively except for X, spoke Italian, so she had to mediate for them. And so with her technologies they weren't able to explain properly to people the technology." Beatrix* *"Sometimes probably you have to clarify what somebody meant by stating this or that, and probably there are also some misunderstandings coming up also between non-native speakers if there is no native speaker with them." Berta*
		Communication competence	*"Communication for me inside the project is the key factor for the success of the project." Daphne* *"If you say, "So I do not understand but I do want to understand. But please clarify what you mean", and it's much better than to stay silent and you didn't get the word." Clovis* *"I had to pick up the phone, and as soon as I picked up the phone and spoke to people, it was like, "Oh, all right. Okay." Because we can talk about it, we can work it out, which is why I spent an extraordinary amount of people talking to people." Beatrix* *"It does require quite a lot of sophistication and understanding of where different nationalities come from and how they talk and what the meeting cultures are and team discussion cultures." Beatrix* *"All of a sudden, I'm the one who is going to the meetings and to communicate because they actually feel that I communicate much better what is needed to be communicated than they would." Elisabeta*

			"I probably some of the words that might… be perceived as harshness in communication is actually, I might perceive as being just a little bit more direct." Alessandra *"I just happen to be able to pick up on it just because I have informal conversations by virtue of I could just walk out and say, "Hey, what's that about?"" Alessandra* *"You learn how to communicate effectively using your body language, your eyes, and everything, to communicate the right message because the difference in the language means that maybe you will not-- not maybe, certainly you will not use the right words to describe your precise thoughts." Daphne* *"The language barrier is not the problem. This is the key for me and I have thought a lot of times about that. A lot of times. The communication is not based only on the language because if you want to communicate something, you find the way to communicate it. If you don't know exactly what you want to communicate, you will not find a way to communicate it anyway, even if you speak the same language with the other person." Daphne*
		Emotional skillset	*"We need different competences in the project manager, particularly the emotional skillset, that's really important, especially how you use your words." Dagma* *"In some cases that a person indeed has a problem in communication, usually is afraid to speak. And doesn't speak at all. And after these years of getting involved in the projects I feel very comfortable identifying these persons. And I try to help them, let's say." Daphne* *"[T]here are better way to solve situation like that. Which I would not include too much emotional impact or too much visibly angry or-- so probably today I would have managed that in a different way." Carlo* *"I think in some cases you have to go, yeah, that's okay. That will do. Compromise." Claire* *"We have to accept this kind of difference in this job because if you start fighting against it, the project will suffer from it. Because there must be cooperation." Eugenia*

	Familiar relationships	Trust	*“It's like other communication except that you don't have the face. I mean, it's not in your control, right. You just have to-- to an extent, you just have to trust that… people will respond if they feel offended”. Beatrix* *“The most complicated things is understanding each other and even develop a trust or relationship which, of course, is also based around an understanding.” Carlo*
		Rapport	*“I always try to establish good relationships from the personal point of view. Since the beginning, I think this is very important. I mean, it's not that I do it because I need to do it. I want to because I'm very convinced that interpersonal relationships and relationships between people are the real thing that makes a project develop. And if you have a good relationship with a person, you can solve any problem. Any issue.” Eugenia* *“[T]he nice climate and atmosphere between the partners makes also good cooperation. And this is very important for me. This is the A and Z, I think, in a project implementation.” Daphne* *“[W]hen we had meetings, we always managed to separate the professional discussions from the human relations. So we could have a discussion in the meeting but then, at lunch, we were happy together, at least socially. It's really something.” Beatrix*
		Empathy	*“One of the limitations of working virtually actually that sometimes empathy, personal relations, and familiarity and the kind of communication is not as good as it could be if we all in the same physical space when the communication is much more efficient…. When you're in face-to-face you're also developing a kind of relationship with the people. You develop a real physical and more familiar relationship and you end up caring more about the people.” Elisabeta*
		Previous collaborations	*“It was quite smooth. I mean, in [Project C] there was already a good number of people that had already that kind of personal relationship. If you have a team, which is already somehow consolidated, but then it's easier even to welcome newcomers.” Carlo* *“I have no solution how you can prevent this [type of discord]. The only thing is just to try to get as many projects as possible with partners you already know.” Clovis*

			"Some of those people knew each other already, that became-- the online space also became a kind of a social space in a way, like it doesn't matter if I get angry with a friend - right? - because that person will understand. And that was, I guess, maybe perhaps forgotten that there are other people external to that cluster of people who knew each and shared a language." Alessandra *"If you want a strong project you have to go beyond what you know, find the best people in an area and go for quality above all else. If you want to stay creative you have to expand your partnership beyond what you already know." Dagma*
EXERCISE OF POWER AND LEADERSHIP	**Contestation over common purpose/power**	Organisational conflicts	*"[T]here was a lot of background stuff which I didn't know. So there was a lot of background politics between organisations." Beatrix* *"And they counted on the fact that all the other partners had little knowledge of the technological part. So their problem in the consortium was us [as technical experts]. Except I was always there to, you know, underline the fact that they were not respecting, also, the requirements that were set in the description of work." Bianca* *"[W]e had to, let's say, convince one of the company that was inside the project to perform a particular job, and they didn't want to do that. Now, the issue was that I felt that it wasn't right. I was fully supported by the rest of the consortium". Carlo* *"They're the powerful commissioner and they've got the contractor. We're dependent on them. And I guess augmented by the fact that they need super precise and the best possible information, and so they're push, push, push, push. But all of that stuff gets exported out and then you kind of end up with communication which can be very, very challenging." Beatrix*
		Coordinator not facilitating	*"I felt that she wasn't trying to help me and to solve the situation, but she kept on saying what was wrong and trying to find the guilt and not the solution." Ada* *"[T]he person who was in charge of coordinating the project was not facilitating. And maybe she was more interested in highlight the differences rather than solve the problems." Anna*

			"The project coordinator was shouting at the Spanish partner, much to the dismay of pretty much everyone. It was quite violent. But again, I think that what was coming out in the meeting at that time, was essentially how nobody had really understood what they were meant to be doing." Alessandra *"[W]hen he stopped his presentation, this [Committee] President… started to attack him on the problems of extremism and nationalism, regionalism. And this poor guy doesn't know why. But he was very, very angry." Berta* *"[T]here should be, I think, a training for those who want to do this [project management] job, that they should do a training on interpersonal communication and conflict management." Eugenia*
		Disparate views	*"[T]hey are creative projects and you always get disparate views. And you do need somebody to give people some framework or steer a broad direction in which to direct their efforts." Beatrix* *"[H]onestly, I think the misunderstandings are-- not misunderstandings, really, [they're] different point of views on how the project should have been developed." Bianca* *"I think everybody tried to explain their point of view. But when people are presenting their ideas, then you see that the starting point is very different. The expectation and the view on the project is very different." Clovis*
		Insufficient authority	*"When I started and we did something wrong, I mean, it wasn't exactly what we needed to do, I felt that some person in the team, okay, were really strongly judging me and not trying to explain me better. Like I was trying to trick them." Ada* *"I wouldn't have left her alone, because she was left alone, and despite that she did her best, so for me, she's a very valuable employee in the end. But if you really care about the partnerships you develop, you don't leave a person at the first time alone." Daphne*
		Unresolved project design issues	*"Because they were asked to do something that was not part of their daily work, probably meant the mistake was in the project design." Alberto*

			"OrgA wrote OrgB's work package or something crazy, so that had a particular vision and then OrgB didn't have that. So there was kind of competence struggles to an extent. And I feel they were fishing all along almost to take over from OrgB." Beatrix *"When someone interprets a sentence [from the proposal] like, well, you're responsible for that. And then someone else says, "Oh, no, I don't have budget for this task. We think you're supposed to be implementing that." And just as a coordinator, you end up then being a mediator for all those discussions." Claire*
		Abdication of leadership	*"I thought [the project manager] could just run it. But she didn't just run it, and, in fact, the whole team was looking to me [as project director], because everybody gets terribly hierarchical in these projects." Beatrix* *"[S]ometimes it was confusing who was actually managing the project, from a partner perspective, I mean…. But we never really knew who to address in the end." Bianca*
	Accommodation of difference	Create some common ground	*"The aims of the project are kind of viewed as slightly differently. The ethos of the project is viewed slightly differently. What people want from it is slightly different. This is all normal stuff. And so there's always an element in these initial phases where people need to get together to understand, "Are we all on the same page here? Where are we going?"" Alessandra* *"What I've learned working on European projects…, is that the first thing you have to do every time when a new partnership comes together… [is] really dedicate a meeting… to clarify the concepts… or the connotations you have with certain terms, and that you have enough time to exchange about your own experiences with a specific topic." Bianca* *"'Appreciative enquiry' was just an approach that focuses on what the partnership does well… rather than looking at all the difficulties with it. It was a way to create some common ground." Alessandra*
		Learning communication culture	*"I learned to slow down a lot when I was presenting and simplify language." Claire*
		Use simple language	*"I have noticed also that people that I cooperate from these countries do not use very sophisticated words because the point is to understand each other." Daphne*

			"[S]ometimes I have to make the native speakers aware that all the rest are using English as a second language. And also to make them aware that pronunciation is a problem, to speak slowly and clearly." Clovis *"There's almost this other dictionary in doing EU projects where they're replaced with other phrases and words that everybody doing EU projects uses, and you learn them as you join the project." Claire*
		Able to change plans	*"[S]ometimes in European projects, you don't have a clear proposal but you still have to craft what it is that you want…. But that requires quite strong leadership… it requires people to work together well and to be on the same page. And if that doesn't happen, then these sorts of issues come up." Alessandra* *"[I]f you write a project today, and the project has also a budget and you write those budget today, then you submit the project. The project passes, and then you have two years for doing the things that you promised. If, at the end of the project, if you haven't changed anything and if you haven't done even the smallest changed during the work, if I were monitoring I would think that there's something wrong, because if that a project remains exactly the same during implementation as it was during the planning and design stage." Eugenia*
	Take up of leadership	Taking central responsibility	*"[M]y perception was that at certain point [the Project Director] took over because she felt that - how can I say? - a more senior approach was needed to manage a project that was turning out to be very difficult." Bianca* *"[The big meetings are big and they should be really strict and there should be really a moderator that really also has the power and maybe something like natural authority and-- yeah, this is sometimes not the case because all the partners are formally a bit on the same level" Carl* *"But now I'm on top of everything, so I'm controlling all the deadlines and the tasks and everything that has to be done within our team. I make sure that everything is being done properly right now. Even though I'm not the coordinator." Elisabeta*

		Leader became increasingly present	*“[T]he only merit for… the final production of the game I would say goes to [the Project Director], because she used to spend hours and hours and weekends and a lot of time trying to supply at least all the parts that she could supply that were not really technical and that could somehow make the work of [the technical partner] a bit quicker. But she worked really a lot. She put a lot of energy into-- also in trying to put some good mood in the partnership and so on.” Bianca* *“The communication was okay. So it's very much depending on the consortium leader. How they follow-up discussions. How they direct the communication. It's impossible to let the communication run in a natural way. There must always be somebody who is… coordinate it.” Clovis*
TRIGGERS FOR HIDDEN DISCORD	**Vague or poor communicatio n**	Short messages can create misunderstandings	*“Now, when I think of this way to write a short comment or a short reply to a message, and not necessary also in the sense of having different definitions or connotations with certain terms or maybe not using certain terms the same way the other person uses it. But also with regard to maybe ways to behave with each other too. If they think, "Oh my God, he or she answered quite shortly so maybe she's angry, he's angry." Berta*
		Not able to follow a discussion	*“[T]here was one project that I was the lead partner and I had a partner from Romania who didn't speak well. He had a problem in communicating. I'm still, I'm not sure if he was understanding everything but he was afraid to speak. But he was speaking very, with very few words with difficulty.” Daphne* *“[S]ometimes you are too focused on understanding every single word or sentence that you miss the big picture of the speech. This particularly happens when you have someone who is from a particular sector or a particular way of speaking, you can't understand every single word of the sentence and you are missing the bigger framework.” Anna*
		Interpretation of vague instructions	*“X were supposed to write Dissemination and Communication Plan something like this, and actually they were writing something, some activities and I remember that, the coordinator, was saying to them “no it's not like this it's not like this”. And X couldn't really understand why, “are you saying that we shouldn't really be doing this?” [The*

			coordinator] says "yes you should be doing this but it's not really a communication plan"." Anna *"[W]hen you have a-- what do they call it-- a grant agreement with everything when someone interprets a sentence like, well, you're responsible for that. And then someone else says, "Oh, no, I don't have budget for this task. We think you're supposed to be implementing that."" Claire*
		Inability to communicate a message	*"But misunderstandings start, I think, from inability to communicate your message again. If you want to understand something specific, and people discuss for something else, but you don't want to understand this. You want to understand what you want to understand." Daphne*
	Lack of verification	Not verifying what was said	*"I think when you are virtual you need to be creative and democratic. To do that you need to feel able to ask questions and query what others are saying. If that's not possible to do you stop the creative process." Dagma* *"Our Gotomeetings don't work well, people attend the meeting but they are not there. You will ask a question and no one responds." Dagma* *"I remember some partners kind of asking questions about what they were meant to be doing. I'm not sure they were receiving responses. Then when the meeting came, it all came to a head". Alessandra* *"[W]hen we had our last meeting, we were speaking about something and that person said "we can't do this". But I understand them saying "we can". And I said "no I don't agree with you!"" Anna* *"I really couldn't understand very well what I need to do for the project. And for instance, the research at the beginning… I didn't understand very well since the beginning what my boss was saying…. And we never worked in the same room because I was near Genoa." Ada*

			“[Y]ou do not always see or… you don't hear a person speaking, how something is meant. And it meant something to you, but you don't have the occasion to ask for more clarification.” Berta *“But in the communication, it must be allowed to come back and say, "Okay, please explain once more. I did not understand-- I could not understand," and so on, so on. And sometimes people in new teams, they're a little bit shy to do that.” Clovis*
		People are not paying full attention	*“[A]lways the problem if you work together with people who are not on-site, then, if it's a long telephone conference and people are not really taking full attention, they are doing other things, sometimes it's not very productive and sometimes some people like to talk a lot and it's not really proceeding but all others are sleeping or doing other stuff”. Carl*
		Not acknowledging directions	*“[T]he problem was that we, as OrgA, were late in providing the financial report. And we didn't reply even to some of the emails. We didn't do it because we knew we were late, and so we were trying to solve the problem before replying. But this wasn't a good solution, a good way to behave because on the other side the financial manager thought that we weren't doing our activities.” Ada* *“[T]he most common problem is that people do not answer to you. You ask for something, they never answer it. And they don't send an email saying that, "Okay, I'm not available now or for the next 10 days," for example, "Because I do something else, but I will take care of your request after 10 days." But they don't answer at all. So this makes me feel that they don't care.” Daphne*
	Lack of discussion	Local needs are prioritised	*“[T]hey had prepared a kind of draft of points they wanted to raise in this opinion and statements they wanted to make, but sometimes which was very much related to the Finnish situation. Not making any kind of attempts to understand what was happening in other countries.” Berta*
		Discord developed between meetings	*“With another partner who, actually, in this case, was probably very clever because she'd actually, via email everything was fine wasn't it? So I suppose it was very easy to kind of give that kind of a context by which things were going fine. And actually, then in the face-to-face meeting, she produced something that was totally irrelevant and that then actually ended up in pretty much a shouting match.” Alessandra*

			"We organised, out of the foreseen budget, an activities trip to Milan to visit them…. We stayed there for one full day giving them some training…. And then, after one month, we had a project meeting where they said we had not provided them with the right support. So from that point on, you can imagine that the relationship was…." Bianca *"[At the final meeting] we had a problem with… one of the partners was not actually developing the implementation part of the project. So we're one month [from] the end of the project. And one of the labs are not being implemented." Elisabeta* *"In my opinion, the only moment when you can really work on conflicts, when you can resolve issues that are really important issues, are the moments when you can meet with people face-to-face." Elisabeta*
		We don't digest enough	*"In the project I feel like we don't digest enough, particularly about what we are supposed to deliver. There's little sharing about what we do. There's never been a process design about when we meet." Dante*
	Inconclusive conflict	Disengagement	*"[The conflict] slowed down the whole thing, as usual, and made people more tired than they were supposed to be at that part of the project." Alberto* *"What sometimes happens, that you try to disconnect yourself, or that you try to reduce some dependencies on other partners. For instance, if you are trying to do a PhD, or some research papers, you cannot wait endless and then nothing in a good quality comes. So then you do other things which are maybe easier to do, or possible with partners who are really committed." Carl*

EMOTIONAL REACTIONS TO HIDDEN DISCORD	**Shame**	Embarrassment	*“I felt very embarrassed. I didn't think a senior member of staff-- I don't think that was a reaction of a senior member of staff at a meeting of that kind”. Alessandra* *“No, she totally did not communicate clearly at all…. I think that partly maybe she was embarrassed.” Beatrix* *“We were going back and forth to close the taxonomy and then I was starting to get embarrassed about sending more emails about this whole details and maybe I should take my own decision and assume…. But at the same time, it has so many implications”. Elisabeta*
		Ashamed	*“And yes, was I a little bit ashamed? But I'm always a little bit ashamed in international situation…. Because of my English, of course.” Ada* *“I think he felt ashamed. He really showed it. He felt quite ashamed, and I think they and secretariat, they still tried to change”. Berta* *“I had to deal with somebody who was very stubborn, and they became more, even more picky and, really, not at all sympathetic or positive. So I remember that in this project, then my shame of the bad guy was increasingly growing also between people that consider me more a friend.” Carlo*
	Anger	Anger	*“There were some errors, some mistakes, and so the financial manager wrote another really-- how can I say? A little bit angry email saying that "this wasn't complete."” Ada* *“I think some of their communication might have been perceived as being angry or harsh. When to me, it was just a style of communicating, which might have been very direct, for example.” Alessandra*

			"[S]ome of the reactions were, on the face of it, quite strong and quite powerful. People storming out of meetings and that kind of stuff out of nothing more than communication difficulties but also a predisposition I guess for creating an argument". Alessandra *"I discovered that the game design document that we had produced… was not taken into consideration… to design their game, to develop their game in the end, and everyone knew that except for us. So in that case, I got really angry. And I never understood why we were the last to know and just by chance because someone said in the conversation something and I said, "So sorry, can you repeat, please?" Yes, they took for granted that I knew." Bianca* *"[H]e was just-- I think in the beginning, surprised, and then quite angry about it. And I think also not understanding why he was treating him as a separatist." Berta* *"I remember I was angry because I felt that they was pulling my legs." Carlo*
		Resentment	*"I don't think we resolved it, to be honest, entirely. I mean, [we] resolved it in the sense that I took over. I feel terribly resentful, obviously, because that was not the intention." Beatrix*
		Frustration	*"[T]hey worked a lot on the research, a lot. But they made something that wasn't what they were supposed to do. They couldn't understand why, they couldn't understand what more they could have done. So it's frustrating." Anna* *"[W]e realised this misunderstanding when they already did all the work, a few months passed, and so it was really annoying to try and solve that thing." Alberto* *"I think that what was coming out in the meeting at that time, was essentially how nobody had really understood what they were meant to be doing. And for some reason, the partners expressed some frustration with the inability to get answers to the questions by any other means. So I think what happened is that the inability kind of to respond accurately by email just ensured that people just went off and did something they just weren't comfortable with and it all came crashing down." Alessandra*

			"Sometimes it was confusing who was actually managing the project, from a partner perspective, I mean…. So it was a bit frustrating in that sense." Bianca *"I recently asked a question to the coordinator on Basecamp and got no response. Not acknowledging questions just builds up frustration." Dagma*
	Anxiety	Shocked	*"I was shocked…. Because suddenly I realised that we are WP2 leaders and a lot of the tasks from the WP2 were basically behind…. Actually, because of the language barrier, I end up realising since [the meeting in] Madrid I'm actually the one who is on top of everything with making the schedule for the past months to be done on time and everything like that." Elisabeta*
		Stressed	*"[I]n this kind of situation when you feel you cannot understand completely and you are not understood completely it increase your stress. And so it's easier to be tired and to start a conflict with partners." Alberto* *"Right now, the communication partner is getting stressed as he's not been told what the timelines are. We need a more respectful approach." Dagma*
		Upsetting	*"She was really upset. And she said, "Sorry, but I'm a software engineer, so I know what you are talking about. Maybe you don't know what you are talking about." That was the level of tension. And this is a lady that never gets angry." Bianca* *"I was really upset with the results of the Madrid meeting. I was so upset when I came back with our team, and I communicated that" Elisabeta*
		Confusion	*"Sometimes it was confusing who was actually managing the project, from a partner perspective, I mean. Because there were periods in which [the Project Manager] was very active and [the Project Director] not, and vice versa. But there were no alerts." Bianca* *"I couldn't see his face in the moment and I couldn't understand if really he was joking or if he really meant it." Eugenia*
		Unpleasant situation	*"Very uncomfortable. Because it was… creating also conflicts, people are feeling very uncomfortable with this, and I had the responsibility of coordinating the team so that is the first reason. Second reason, [the misunderstanding involved] personal friends. So being in a position of having to tell them they have to redo completely the work that they already did, it wasn't easy at all." Alberto*

			"That wasn't great in this communication. It created very unpleasant incidents. Which started by kind of difficulty of communication, and then kind of got to a head in face to face meetings because there were no resolved." Alessandra *"This took months [to resolve]. Yes. This took months. It became between May, we went on a calls conference, call conferences. It went live. This was very, very, very hard." Carlo*
EFFECTS OF HIDDEN DISCORD	**Inefficiency**	Lost time	*"We realised after a few months that we haven't understand the difference between [different technical terms]. So this caused a lot of problems. But this was for the first months. Then we sorted this out. But we lost a lot of time." Alberto* *"So we're one month end-- one month is missing to the end of the project. And one of the labs are not being implemented. So, obviously it's not going to be one month, for now, that is going to do everything that we have been doing for the past, I don't know, six or seven months." Elisabeta*
		Wrong type of product	*"[T]hey worked a lot of the research, a lot. But they made something that wasn't what they were supposed to do." Anna* *"I think for a while we didn't necessarily understand that we needed to come out with a business at the end of the project. A lot of partners were treating it like a research project rather than to produce something, but I think that was corrected at our first project review". Claire* *"They were responsible for doing a certain task, so they did the task…. There was understanding from the other partners that the task needed to be different so the other partners… did a different deliverables so there were two deliverables… for the same thing." Elisabeta*

		Lower quality product	*“[W]e didn't solve it completely, because the final product of that Work Package, if you remember, was something acceptable at the end but not really good. So it was a little bit poor even at the end, but at least better than the original version.” Alberto* *“[O]ne of the reason why the project, which had a lot of potential, did not provide the expected outcome, at least to us, in terms of quality, was the bad choice of the partner who developed the game.” Bianca*
	Normalisation of divergence	Understanding each other is the most difficult thing	*“[C]ommunication and understanding each other is the most difficult thing. It's not about ideas, it's not about projects or brilliant things. The most complicated things is understanding each other and even develop a trust or relationship which, of course, is also based around an understanding.” Carlo*
		Strong emotions became part of the dynamic	*“[B]ecause it was such an emotionally charged partnership, I think some people towards the end were quite sympathetic [to someone storming out] because maybe [the Project Manager] had behaved in that way in the first meeting by almost throttling a person, so it became a kind of like, "Okay, it's fine. We'll deal with it," because… it's part of the dynamic.” Alessandra* *“With the experience that I have now, I think it was too much, too harsh, too direct, and there was too much passion inside that.” Carlo*
		Compromise was very difficult	*“I mean there was compromise eventually obviously. But it was quite, it was very very difficult. And a lot of it was structural. That part was set up. Some people's personal-- on the one hand wanting leadership but then on the other hand resisting.” Beatrix* *“[T]hat became the default position in a way. Quite conflictual having to sort of-- somebody makes a request, you deny it.” Alessandra*
		Hangover from previous interactions	*“[T]hat was a hangover and a legacy from all the meetings we've had-- all the difficult communication we had. So you come up-- you come there with a chip on your shoulder and that just kind of-- the frustrations really blew up.” Alessandra*
		Positions becoming more and more far away	*“You can't call on the phone just to have a little chat because we are in different countries. And you can't go and talk face-by-face. So the positions were becoming more and more far, far, one from each other, even if there wasn't really a real problem.” Ada*

			"[B]ecause these conflicts have been happening throughout the project, I think people began to operate on point of principle, right? So because the kind of emotions in the partnership were such that-- people took very polarising positions, so I think even though the request had come to-- it kind of soared kind of out of the blue, maybe not in the nicest possible way, she didn't hear the request. She just heard the demand. She heard the impossibility of it." Alessandra *"[W]e were always against them." Bianca* *"[I]t made sense to split the technical teams and the product…. So that split a lot in terms of budget and technical teams… So there's quite a few partners who were, I suppose, dedicated to one side or the other." Claire*
	Splits/ schisms in team	In-group formed	*"I think for me, there was an in-group a little bit that had formed in that project. I think because the majority of them, shared a language, shared a culture. I think the way of communicating was-- it became easy. Okay, it became easy to just conform to your usual way of communicating because you had peers around you." Alessandra* *"I suppose we split our project, I would say halfway… so that we have the two streams I mentioned, the one delivering to businesses and one delivering to government organizations because they have such different requirements that it made sense to split the technical teams and the product". Claire*
		Split in authority	*"So it was not clear what was the role of each of them. So it was clear to me that X was the coordinator and Y was the project manager in principle. But sometimes they switched, so it was confusing." Bianca*
		Project was not sustained	*"So there is a code that you should download and use, but we don't know how to manage this. So [the project is] something really useless…. It's really dead." Bianca* *"[Y]ou could see some technical solutions. In principle, it could show that it could be helpful if it's used in the right way. Unfortunately, [Project C] was a normal research project, which means when it is over then it's over, and all the rest may be forgotten." Clovis*

		Created conflicts	*“Very uncomfortable. Because it was…. Well, for me, particularly, it was uncomfortable because it was creating also conflicts, people are feeling very uncomfortable with this, and I had the responsibility of coordinating the team”. Alberto*
		Relationships deteriorated	*“[M]ost of the fault was theirs, but they didn't understand this [laughter]. And, in the end, during the event, they told me-- I was, let's say, an external to their operation. I was not involved at all. So they told me that, "I don't want to cooperate with your organisation again.” Daphne* *“In terms of the relationships it was very bad, it was very bad. It was a very unpleasant situation for all the participants.” Anna* *“[I]nstead of replying with even… a partial reply, even just saying, sorry, I'm not ready, but please wait. She would prefer to wait and reply when she is ready. But this affect I think the relation with a person who doesn't know you.” Ada*
		No mutual understanding	*“[T]hat [misunderstanding] was not solved so the results are really poor for that one. So that was the big one. And that was not a matter of the organisation no….. I think the problem was really personal, the person that [OrgA] chose to manage this project, I don't think that she was really able to understand what we were saying, and she didn't also commit herself too much to the project, she clearly had other priorities.” Alberto* *“We tried to do the best with the information that we had and so we're trying to take in consideration that from some we were not going to understand each other fully.” Ada* *“I'm not sure the extent to which some of the tensions were ever resolved, but I think that's to do with how the partnership was set up. So you could maybe argue that if some of the tensions with multi-partnership teams aren't worked through at the beginning, then you're very unlikely maybe to kind of-- they just don't get resolved and a pattern forms.” Alessandra* *“There was understanding from the other partners that the task needed to be different so the other partners assumed and they did a different deliverables so there were two deliverables were the same for the same thing.” Elisabeta*

		Guilty partner blamed	*"The frustration is at the level of the partnership because everybody sees that things are not working. And so, you need to find the guilty partner. And usually, the guilty partner… is the partner who carries out the technical part." Bianca* *"So we had technological input from two universities and two private companies. And only one partner says, "Okay. No interest anymore." then it's dead you know?" Clovis* *"So they told me that, "Okay, where did you find this girl? She didn't do the work well at all." "Yes," I said, "but she's very new. She tried a lot." I tried to, let's say - how to say? - to defend my colleague, something like that and in the end, they told me that, "Okay, we don't want any cooperation with your organisation anymore."" Daphne*
	Synthetic social order	Clearer leadership	*"if I'm right, if I remember correctly we involved [Interviewee A4] to support [the project director] in managing the time and managing the work, of the meeting…. I think it helped a lot to have a different person, a person not involved in the management, to manage the work in the group." Anna*
		Learning communication culture	*"I spent an extraordinary amount of time talking to people. And brokering that by phone, because then you can have a much more normal and nuanced conversation, obviously, than an email. And the example that immediately comes to mind is kind of Y's behaviour online, when he was very kind of finger-pointy. But I don't necessarily-- okay, that might be partly cultural." Beatrix* *"So appreciating that you need to change your communication style for others is a good thing to learn for any aspect of life, not just business. So I suppose having had the opportunity to run a new project maybe makes me more aware of that in general working life anyway, and that's quite a useful skill to have." Claire*
		Expectations became clearer	*"[I]t took time for me to understand what were the expectations because I couldn't understand, and no one explained." Anna* *"It was just we explained our different expectation and because they all were nice people so we could accept the different views and at the end it turned out to be very important that we had that discussion." Clovis*

			"So particularly around implementing the UI, we found issues there because we hadn't really dedicated those tasks to different partners. So we had a huge spreadsheet splitting it up between all partners to make it fair." Claire *"Because of the language, I was expected to be the one to represent and to communicate, but then the coordination was not-- and officially it's not on me. It's just expected and that's because of the language." Elisabeta*
		Project sustained	*"We had a slight extension to August last year…. So the outcomes are ongoing. And we're also working on another project… where the products from [the original project] are being used as a test site for that project." Claire*
		Decent working environment	*"I remember after that meeting we spoke a lot with the others, neither for the work we have to do, neither for the relationship between the people. We thought we should ensure that at least are we had a decent environment, in that case we don't want this environment which is very impolite." Anna* *"[W]e said that we should pay more attention to the timing of the meeting, we should avoid this kind of situation which one person is attacked by another person and to stop, even if it means we're not talking anymore in this issue ok, that's it, we should stop it." Anna*

Appendix 3 Table of critical incidents

Code	Name	Short description	Type of discord	Subtype	Topic of discord	Resolution
A(i)	Shared definitions	New team had conflicting definitions over key terms for project	Hidden disagreement	Contained disagreement	Word/Content	Resolved
A(ii)	Marketing report	Partner produced partially incorrect report after misunderstanding sparce instructions	Misunderstanding	Uncontained misunderstanding	Task	Resolved
A(ii)	Project manager's behaviour	Partner shouted at marketing partner during meeting	Hidden disagreement	Contained disagreement	Norms of behaviour	Resolved
A(iii)	Research report	Partner produced partially incorrect report after misunderstanding sparce instructions	Misunderstanding	Uncontained misunderstanding	Task	Resolved
A(ii)i	Giving feedback over email	Research partner upset after numerous negative comments on report given by email	Hidden disagreement	Repressed conflict	Norms of behaviour	Unresolved

A(iv)	Purpose of project	Partners argued in meeting in leadership dispute which was cut short	Hidden disagreement	Repressed conflict	Task	Quickly resolved
A(iv)	Dealing with anger	Anger in the group reflected upon in session	Hidden disagreement	Contained disagreement	Norms of behaviour	Resolved
A(v)	Who was the manager	Lack of clarity concerning who was managing the project	Hidden disagreement	Undiscussed disagreement	Role	Unresolved
B(i)	IT partner's role	IT partner attempted to replace another partner until shut down by project director	Hidden disagreement	Repressed conflict	Role	Unresolved
B(i)	B(i) Constantly raising issues	One partner was disruptive and impolite towards another partner	Hidden disagreement	Repressed conflict	Norms of behaviour	Resolved
B(ii)	Purpose of the game	Game originator wished online game to be faithful, other partners wanted more adaptation to medium	Hidden disagreement	Contained disagreement	Purpose of team	Resolved
B(iii)	Who was the manager	Project manager stepped back after active start, unclear who to address	Hidden disagreement	Undiscussed disagreement	Role	Unresolved
C(i)	Project expectations	Industry partners expected project to be practical, academics more theoretical	Hidden disagreement	Undiscussed disagreement	Purpose of team	Unresolved

C(ii)	IT partner	IT partner’s budget ran low, and they did not complete their tasks in the eyes of others	Hidden disagreement	Undiscussed disagreement	Role	Unresolved
C(iii)	Survey	Unexpectedly, research partners pushed for an expensive survey	Hidden disagreement	Contained disagreement	Task	Resolved
D(i)	Book of project	A book was produced with a range of partners but with little collaboration or shared vision	Hidden disagreement	Undiscussed disagreement	Task	Unresolved
D(i)	How to work together	Range of opinions on how much collaboration was needed for dispersed work	Hidden disagreement	Undiscussed disagreement	Norms of behaviour	Unresolved
D(ii)	Dissemination deadlines	A partner waited on an answer on deadlines from the manager for months	Nonunderstanding	Nonunderstanding	Task	Unresolved
D(iii)	Quality standards	An early logo was firmly rejected by one partner as the quality was poor to her but acceptable to others	Hidden disagreement	Repressed conflict	Norms of behaviour	Unresolved
D(iv)	Shared definitions	Key terms in the project were never unpacked, discussed, and agreed upon	Hidden disagreement	Repressed conflict	Word/Content	Unresolved

D(v)	Server ownership	It was revealed a server wasn't owned by a partner, preventing data retrieval	Misunderstanding	Contained misunderstanding	Task	Resolved
E(i)	Coordinates	A partner was unclear how to label coordinates until a conversation at a meeting	Nonunderstanding	Nonunderstanding	Task	Resolved
E(ii)	Sleeping partner situation	After underperforming, a partner was deliberately side lined; partners wanted them ejected	Hidden disagreement	Repressed conflict	Role	Unresolved
E(ii)	How to dissuade participation	Project manager was heavy handed in stopping discussion about the sleeping partner situation	Hidden disagreement	Repressed conflict	Norms of behaviour	Unresolved
E(iii)	Quality or quantity	Partners disagreed about whether quality or quantity of cases was preferable	Hidden disagreement	Contained disagreement	Task	Quickly resolved
E(iv)	Work package leadership	An informal work package leader was pushed towards formal leadership by colleagues	Hidden disagreement	Contained disagreement	Role	Resolved
E(v)	Abstracts or cases	A partner spent much time erroneously collating abstracts instead of cases	Misunderstanding	Contained misunderstanding	Task	Resolved

Z(i)	Costs for preparation	Unexpected to the UK partner, contracted costs did not include preparation costs	Misunderstanding	Uncontained misunderstanding	Norms of behaviour	Resolved
Z(ii)	Poor translator	A translator misunderstood many technical terms during live translation	Misunderstanding	Uncontained misunderstanding	Role	Quickly resolved
Z(iii)	Communication style	Chinese communication style (leading with justifications) was experienced as untrustworthy	Misunderstanding	Uncontained misunderstanding	Word/Content	Unresolved
O(i)	"Against this city"	During a meeting, a partner said she was “against this city”, meaning they didn’t want them included	Misunderstanding	Contained misunderstanding	Word/Content	Quickly resolved
O(ii)	Administrator ignored	Until directly introduced in a project meeting, an administrator was ignored	Nonunderstanding	Nonunderstanding	Role	Resolved
O(iii)	Mistaken identity	A team member erroneously assumed they were being criticised in a group email	Misunderstanding	Contained misunderstanding	Word/Content	Quickly resolved
O(iv)	Financial report	A financial report was not submitted due to uncommunicated internal problems	Misunderstanding	Uncontained misunderstanding	Task	Resolved

O(v)	Finnish local issues	An EU group led by a Finnish woman was directed to address Finnish issues rather than EU wide	Hidden disagreement	Repressed conflict	Purpose of team	Unresolved
O(v)	Self-centred behaviour	Partners strongly disapproved focusing on local issues	Hidden disagreement	Undiscussed disagreement	Norms of behaviour	Unresolved
O(vi)	Fire safety translation	Key technical terms were mistranslated in an official document at the end of a project	Misunderstanding	Unrealised misunderstanding	Word/Content	Unresolved
O(vii)	Holland province	During a conference, a Chair assumed a presenter was a provincial separatist due to use of the work 'Holland'	Misunderstanding	Unrealised misunderstanding	Word/Content	Unresolved
O(viii)	Unwilling partner	A long running disagreement over whether a partner was required to fulfil a task	Hidden disagreement	Contained disagreement	Role	Resolved
O(ix)	Greek prototype	At the final meeting, a Greek partner did not complete a prototype when expected to	Hidden disagreement	Contained disagreement	Role	Unresolved

O(ix)	Dissembling about tasks	Untrustworthy behaviour by a partner in dissembling about what tasks they completed	Hidden disagreement	Undiscussed disagreement	Norms of behaviour	Unresolved
O(x)	Loudspeaker	During a conference introduction, a partner was erroneously introduced as a 'loudspeaker'	Misunderstanding	Contained misunderstanding	Word/Content	Quickly resolved
O(xi)	Two deliverables	A partner misunderstood a report task, leading to another report being produced by another partner	Misunderstanding	Uncontained misunderstanding	Task	Unresolved
O(xii)	Structures with architects	Architects understood the term structures differently to team members	Misunderstanding	Unknown	Word/Content	Unresolved
O(xiii)	Initial disagreement	An early task was contested by a partner	Hidden disagreement	Contained disagreement	Task	Resolved
O(xiv)	Twitter	A partner used the word 'Twitter' incorrectly	Misunderstanding	Contained misunderstanding	Word/Content	Quickly resolved
O(xv)	We can't	A partner said 'we can't' instead of 'we can'	Misunderstanding	Contained misunderstanding	Word/Content	Quickly resolved

O(xvi)	Claire's project - split	A project team gradually split in two to focus on different aspects of a project	Hidden disagreement	Contained disagreement	Role	Resolved
O(xvii)	Claire's project - scope	The initial scope of a project was contested before compromise was reached	Hidden disagreement	Contained disagreement	Purpose of team	Resolved
O(xviii)	Claire's project - security	A loud discussion was diverted during a project meeting	Hidden disagreement	Contained disagreement	Task	Quickly resolved
O(xix)	Claire's project - purpose	Following a project split, the arms of the project diverted in purpose	Hidden disagreement	Repressed conflict	Purpose of team	Unresolved
O(xx)	Quiet Romanian	A Romanian partner found a meeting difficult to follow until aided	Nonunderstanding	Nonunderstanding	Word/Content	Resolved
O(xxi)	Greek-Turkish event	A new Greek staff member was given little aid and poorly managed preparations for an event	Misunderstanding	Uncontained misunderstanding	Task	Unresolved
O(xxii)	Italians and Germans	A German group was flustered by an Italian venue not having the facilities they required	Misunderstanding	Contained misunderstanding	Task	Resolved

Appendix 4 Details of interviewees from Teams A to Z

Interviewee	Team	Role in case Team (if clear)	Type of collaboration	Sector	Country	Languages
Anna	A	Industry expert	R&D/Training	Industry	Italy	English, Italian
Alberto	A	Industry expert	R&D/Training	Industry	Italy	English, Italian
Ada	A	Overall project director (PD)	R&D/Training	Industry	Italy	English, Italian
Alessandra	A	Formative evaluation lead	R&D/Training	Research	UK	English, Italian
Adela	A	Internal lead	R&D/Training	Research	UK/Spain	English, Spanish
Beatrix	B	Overall PD	R&D/Training	Research	UK	English, German
Bianca	B	Internal lead	R&D/Training	Education (higher)	Spain/Italy	English, Italian, Spanish
Berta	B	Project partner	R&D/Training	Industry	Belgium	German, English, French
Carl	C	Partner lead	R&D/Platform dev	Education (higher)	Germany	German, English, French

Carlo	C	App development	R&D/Platform dev	Industry	Italy	Italian, English, German
Clovis	C	Partner lead	R&D/Platform dev	Emergency services	Germany	German, English
Claire	C	Platform development	R&D/Platform dev	Tech development	UK	English
Daira	D	Support coordinator	R&D/Support	Education (higher)	Netherlands	Spanish, English
Dagma	D	Partner lead	R&D/Support	Education (higher)	Denmark	Dutch, Danish, English
Dante	D	Design of support	R&D/Support	Education (higher)	Denmark	Italian, English, Danish, Swedish
Diana	D	Scoping lead	R&D/Support	Education (higher)	Italy	Italian, English
Donatella	D	Partner lead	R&D/Support	Education (higher)	Italy	Italian, English
Daoming	D	Partner lead	R&D/Support	Education (higher)	Spain	Chinese, Spanish, English
Dabir	D	Partner lead	R&D/Support	Education (higher)	UK	Urdu, English
Daphne	D	Partner lead	R&D/Support	Industry	Greece	Greek, English
Elisabeta	E	Partner lead	R&D/Support	Education (higher)	Portugal	Portuguese, English, Spanish

Eva	E	Partner lead	R&D/Support	Industry	Greece	Greek, English
Edwardo	E	Project partner	R&D/Support	Education (higher)	Portugal	Portuguese, English
Eugenia	E	Partner lead	R&D/Support	Industry	Italy	Italian, English
Elliot	E	Project partner	R&D/Support	Industry	UK	English, Spanish
Zhenzhen	Z	CEO	Training/development	Education (higher)	China	Mandarin, English
Zongmeng	Z	Translator	Training/development	Education (higher)	China	Mandarin, English
Zachary	Z	Consultant	Training/development	Education (higher)	UK	English

Appendix 5 Interview questions and reflection form

1. What experience do you have of working in international teams (teams with people based in a number of countries)? (prompt: how recent? Were the teams temporary or permanent? How dispersed?) Can you give me some information about the latest team you worked on?

2. Are there any particular challenges to being a native [German] speaker in this type of team? (Probe: why do you think that is? How does it affect how you communicate? How do you cope? Can you bring me an example?)

3. Are there any particular challenges with communication technology in this type of team? (Probe: why do you think that is? How does it affect how you communicate? How do you cope? Can you bring me an example?)

4. Would you like to talk about a misunderstanding from [case study project] or was there another team you would prefer to talk about?

5. Can you describe [the project] in your own words? (prompt: What was the main task? What was the team like?) Compared with other projects they worked on…

6. How was the quality of communication in the team? (prompt: was it generally easy or difficult? Did any smaller groups form? What languages were spoken? What technology did you use to communicate? Did the quality of communication differ by setting? E.g. in regular calls, in face-to-face meetings, coordination of tasks, personal communications)

7. What kinds of misunderstandings occurred in this team? (prompt: Over tasks/ concepts/ purpose? How common were these kinds of misunderstandings in this team? Did these misunderstandings lead to conflicts or other difficulties? Were these because of the language/technology/something else?)

8. From this project, can you give me an example of a misunderstanding which you consider to have affected the team in some way? (probe: how long did it go on for, how uncomfortable was this for you, (how) was recognised, (how) was it managed, what were the effects for you/the project of this misunderstanding)

9. Why do you think these misunderstandings occurred? (prompt: ICTs? Language competence? Power differences? Cultural backgrounds? Different language patterns as non-native English speakers? Ambiguity in communication?)

10. Did these misunderstandings have any effect on the team communications? (prompt: Did they provoke emotional reactions? What kind of reactions? Did this 'derail' the team? Did people communicate better or worse after this misunderstanding? Did the misunderstandings lead to 'unblocking' the team?)

11. How do you think the misunderstandings were handled? (probe: Would you have done anything differently in retrospect? Can anything be done to prevent these types of misunderstanding?)

12. Any other thoughts/reflections/learning?

13. Demographics: your age, gender, nationality, qualifications, lived abroad.

14. Is it ok if I come back to you if come back to you if I have more questions?

OBSERVATIONS AND AFTERTHOUGHTS

	Observations (To be completed by Interviewer post interview)
	What (if any) observations from the interview could you record about this interview? This might include observations about: • What you saw - body language of the individual – i.e., relaxed, tense, distracted, engaged? • The process – i.e., did the person arrive on time, was it easy, difficult, complicated, confused? • Your feelings and sense of self during and after the interview – i.e., did you find yourself preoccupied by anything particular/focused/unfocused/anxious/confused etc.?
	Afterthoughts (To be completed by Interviewer post interview)
	What are your impressions and afterthoughts as a result of the interview? This can include: • Where your thoughts seem to be traveling • Preoccupations that seem very central • Key themes or categories that seem to • Concepts that are coming up in relation to the key themes/categories