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Virtual Work and the Inclusion of Linguistic Minorities: A Double-Edged Sword

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Abstract

Information technology has been shown to support organizations' diversity, equity, and inclusion (DEI) initiatives. However, the role of language as a dimension of diversity has often been overlooked, especially for highly-skilled migrants joining organizations in non-Anglophone countries where English serves as the corporate language. Through 25 interviews at the Finnish branch of an international professional service firm, we investigate how these individuals navigate language barriers in both physical and virtual workspaces, with particular focus on coping strategies to language barriers after the COVID-induced transition to full virtual work. We find a dual effect of virtual work on inclusion: while linguistic minorities may reduce their short-term emotional strain in virtual settings, they may also increasingly detach from the majority group in the long run. These findings challenge the prevailing assumption that technology universally overcomes hidden barriers, emphasizing the necessity for tailored DEI-initiatives that consider the individual needs of different minority groups.

Keywords: Language, diversity & inclusion, virtual work, workplace inclusion, coping strategies

1. Introduction

Information technology (IT) has revolutionized the way we work by enabling the widespread adoption of virtual work arrangements. Virtual work offers numerous benefits, such as increased flexibility, cost savings, and the ability to tap into global talent pools. However, as organizations embrace remote working models, it becomes essential to understand their impact on diversity, equity, and inclusion (DEI) initiatives. After all, extant research has pointed to the positive outcomes of inclusive workplaces (Shore, Cleveland, & Sanchez, 2018).

Trauth's (2017) influential research agenda presents two perspectives on social inclusion research

in Information Systems (IS). The first focuses on information systems and technology developers, particularly in relation to gender, such as studying the barriers faced by women in the IT workforce. The second perspective addresses the accessibility and impact of IT for specific groups, often highlighting disparities between the "haves" and "have nots." Both streams examine the intersection of technology and various diversity dimensions like gender, age, race, ethnicity, sexual orientation, gender identity, socioeconomic status, and disability.

However, there is another, largely overlooked dimension to social inclusion that often remains invisible, but affects employees worldwide: *language*. Organizations frequently hire highly-skilled migrants to supplement local (native-speaker) talent pools, often without requiring them to speak the local language as the working language is – at least on paper – the corporate *lingua franca* of English. This is particularly evident in IT and data science fields where highly-skilled migrants are in demand. For example, the Finnish branch of a multinational corporation (MNC) may hire a Czech data science lead to work in the Helsinki office. The formal corporate language is English and the job ad does not state the need for Finnish language skills. Upon arrival, however, the new hire may find that the local language dominates everyday interactions, with limited translation and reduced access to (informal) information compared to their native-speaking peers. This phenomenon has been empirically researched in different organizations (see e.g., Marschan-Piekkari, Welch, & Welch, 1999).

In this study, we explore how highly-skilled migrants – who are linguistic minorities in their organizations - cope with language barriers in both physical and virtual spaces such as Zoom or MS Teams. We specifically examine how a transition to full virtual work influences coping strategies. The minority status of these highly-skilled migrant professionals stems from their foreign descent and inability to speak the language of their new country – in this case Finnish. The case organization is the

Finnish branch of an international professional service firm, with both Finnish and English as working languages but a predominantly Finnish-speaking local employee base. Through interviews with migrant professionals, we compare coping strategies for language barriers in face-to-face and virtual work settings. Hence, our research question is: *How do coping strategies to language barriers differ in face-to-face and remote settings, and how do they influence the inclusion of linguistic minorities?* We focus on the individual experiences and behaviors of linguistic minorities, as individual coping strategies have been found to influence both interpersonal and occupational outcomes (Marchiondo, Ran, & Cortina, 2015).

As expected, we identify several coping strategies utilized by highly-skilled migrant professionals during face-to-face interactions at the office, including cognitively reframing situations and attentional deployment, which can be seen as emotion-focused strategies (Lazarus, 1999). Most interesting, however, was how the dynamics changed after the COVID-induced switch to full virtual work. Here we find that virtuality facilitated a different set of coping strategies to language barriers than in face-to-face work, namely more problem-focused strategies (Lazarus, 1999). These strategies – aided by dimensions of virtuality – ultimately *increased* the inclusion threshold between language groups, while at the same time safeguarding skilled migrants from negative emotional reactions. Thus, virtual work presents a double-edged sword for linguistic minorities: less emotional toll, but also less inclusion to majority groups.

Our results contradict earlier findings generally suggesting that technology would help to overcome invisible barriers, relieve the sub-groupings between majority and minority groups, and “level the playing field”. Language dynamics appear to differ from other diversity dimensions such as gender or ethnicity. Our study provides valuable insights for organizations to develop their DEI initiatives, especially for those in non-Anglophone countries that have adopted English as the working language and employ highly-skilled migrants. While remote work may offer numerous benefits, it may also negatively impact the inclusion of sought-after foreign talent.

2. Theoretical background

Our work on the impact of technology on language barriers and the inclusion of linguistic minority groups relates to multiple research domains. In this section, we provide a concise overview of prior work on social inclusion in IS and emphasize the limited focus on language as a dimension of diversity. Thereafter, we draw upon theories and insights from

social psychology and language-sensitive international business research to introduce key concepts related to language barriers and coping strategies in both physical and virtual settings.

2.1. Social and workplace inclusion in IS

The concept of social inclusion in Information Systems primarily focuses on the distinction between individuals who possess access to information technology (the “haves”) and those who lack access (the “have nots”) in our modern information-driven society (Trauth, 2017). It acknowledges that the social implications of modern information and communication technology (ICT) extend beyond the confines of business boundaries, impacting not only managerial and organizational aspects but also non-profit organizations and society as a whole. More specifically, social inclusion research in IS seeks to better understand aspects of human diversity, particularly those related to underrepresented and underserved groups, in relation to the development, deployment, management, use, and impact of IS and technologies (Trauth, 2017).

Traditionally, social inclusion research in IS has focused on gender, specifically examining sources contributing to gender variations in IT career interest and persistence (see e.g. Trauth, 2002). Nowadays, the field has expanded to include also other dimensions of diversity, such as age, race, ethnicity, sexual orientation, gender identity, socio-economic status, and disability. For instance, studies have shown that racially diverse workforces benefit from using text messaging for communication, as its impersonal nature facilitates the sharing of technical information and insight (Robert et al., 2018). Workers with disabilities who utilize enabling ICT demonstrate increased functional independence and are perceived by their managers as more capable of performing organizational tasks without constant supervision (Heath & Babu, 2017). IS research has also scrutinized the potential, challenges, and design principles of AI-based HR systems that promise to mitigate the human bias in hiring decisions, for example by ignoring sensitive characteristics like age and gender and instead estimating applicant’s personality traits, skills, risk-taking behavior, and emotional intelligence through behavioral patterns in online games (Van den Broek, 2022). DEI research in IS stretches a wide range of topics and methodologies, from technical frameworks for skin tone detection to quantify and compare the diversity of visual marketing campaigns across brands (Xie et al., 2023) to qualitative comparative studies on the uptake of IT by elderly citizens (Yasuoka, 2023).

However, to the best of our knowledge, language as a dimension of diversity and a marker of difference has remained largely unexplored in the IS field. Consequently, in line with Trauth's (2013) recommendation, we draw upon theoretical frameworks from the domains of social psychology and language-sensitive international business to address this gap.

2.2. Language barriers in physical and virtual settings

Organizations and teams are becoming increasingly linguistically diverse (CIPD, 2021), which has made language a crucial dimension of DEI initiatives, particularly in multinational corporations (Ciuk, Śliwa, & Harzing, 2022). Language diversity has been found to have positive effects on dissimilarity attitudes in organizations – such as openness to diverse others (Lauring & Selmer, 2012) – which in turn has been associated with increased performance, job satisfaction, and organizational commitment, among other outcomes (Hicks-Clarke & Iles, 2000). However, when there are disparities in the language proficiency among organizational members – or work teams – language diversity can also lead to language barriers (Hinds, Neeley, & Cramton, 2014).

Surprisingly, language still remains a largely overlooked form of diversity, potentially due to the pre-eminence of American researchers who – due to the dominance of the English language – may underestimate the importance of language. This omission can be seen to be serious, considering that recent immigration trends have made linguistic diversity a key differentiating feature in many of our organizations, and headquarters of MNCs are increasingly situated in non-Anglophone countries (Harzing & Feely, 2008). Ultimately, this means that the corporate language of these organizations, most commonly English, differs from the local language of the country they are situated in.

Language barriers can present a myriad of challenges for diversity and inclusion outcomes. From a social psychology perspective, individuals use social categories to order their social environment and reduce complexities (Gudykunst & Schmidt, 1988). This has clear implications for intergroup relationships, as members from minority and majority groups tend to group together based on homophilic identification (Tajfel & Turner, 1979). Tajfel and Turner (1986) indicate that even trivial, ad hoc intergroup categorization leads to in-group favoritism and discrimination against the out-group. Language, often viewed as an acquired characteristic, can be seen as a significant attribute to and powerful indication of one's

identity (Bordia & Bordia, 2015; Giles & Johnson, 1987), possibly even more so than ethnicity. Language barriers therefore play a key role in determining sub-groupings in multilingual teams.

Research has shown that being a member of a minority language group can make one a target of language-based exclusion (Kulkarni & Sommer, 2015) or linguistic ostracism, i.e. “any situation in which two or more people converse in a language that others around them cannot understand” (Dotan-Eliaz, Sommer, & Rubin, 2009, p. 364). Especially those individuals who do not understand the language of the country of location may be exposed to social exclusion (Lønsmann, 2014; Tange & Lauring, 2009) and experience long-lasting effects on their psychological well-being (Kulkarni & Sommer, 2015). With increasing language diversity, communication intensity, and internationalization of organizations, problems presented by language barriers are likely to be further aggravated (Harzing & Feely, 2008).

Language barriers have predominantly been studied in face-to-face settings. However, while the IS field has largely overlooked language in its social inclusion research agendas, International Business literature offers some sparse insights into how language barriers play out in global virtual teams. Consistent with IS research on other minority groups, most of these studies indicate how remote working technologies can result in *positive* outcomes compared to physically co-located multilingual teams. For instance, Klitmøller and Lauring (2016) found that when individuals are physically separated from other employees through virtual work, they perceive others' behaviors more objectively and detachedly, thereby reducing negative perceptions of non-inclusive language use by others. They also found virtual work to have a positive association with perceptions of employees' openness to language diversity and management's use of the common corporate language. Additionally, the use of lean media in global virtual teams has been found to mitigate the risk of social categorization among culturally diverse team members (Klitmøller, Schneider, & Jonsen, 2015; Stahl et al., 2010). While some studies highlight the difficulty of establishing relationships due to the cultural and language differences that are magnified in virtual settings (see, for example, Hinds, Neeley, & Cramton, 2014; Saarinen & Piekkari, 2015), they remain in the minority. Nonetheless, these studies fail to directly address issues of inclusion, and only touch upon individual coping strategies.

2.3. Coping strategies (to language barriers)

Imagine the following scenario: You enter a meeting room for your weekly briefing, but notice that three co-workers are already animatedly discussing in Finnish. You are from Spain and do not understand the local language of Finnish, as the working language of the organization is English. Thus, you feel increasingly flustered as you sit on the side not understanding the discussion. What do you do?

Coping, defined as being “concerned with our efforts to manage adaptational demands and the emotions they generate” (Lazarus, 2006, p. 10), is a central feature of the emotion process. There exist two primary categories of coping: *problem- and emotion-focused* (Lazarus, 1993). Problem-focused coping strategies directly alter the stressors in one’s environment. For example, if the individual in the example above perceives the situation as controllable, they are likely to try to change it by e.g. asking others to switch to English or by leaving the room. Problem-focused coping strategies have been shown to increase targets’ sense of control and thus, psychological well-being (Schat & Kelloway, 2000).

In turn, emotion-focused coping strategies are used to change the attention one pays to a stressor, the meaning one makes of the experience (i.e., cognitive reappraisal), or one’s emotional reaction to the event (Lazarus, 1993). In the example stated above, this may mean taking out one’s laptop and thinking, “Let them talk in Finnish, it does not matter to me”. Emotion-focused coping strategies are typically used when stressors are perceived as not being amenable to change. Some scholars use the terms antecedent- and response-based emotion-regulation strategies (Gross, 2014), which is a similar distinction between problem- and emotion-focused coping strategies. Antecedent-based strategies, such as situation selection (i.e. choosing whether to expose oneself to a particular situation) are used to modify the emotional stimuli before the emotional response, and response-based strategies such as the regulation of emotional states are used during the emotional response.

The majority of studies on coping strategies have been conducted face-to-face, and without a focus on language barriers. A notable exception is Hinds et al. (2014), who found that members of global virtual teams use emotion-regulation strategies such as situation selection (choosing whether to expose oneself to a particular situation), situation modification (modifying the conditions of a situation to alter its emotional impact), reappraisal (cognitively reframing the situation or redirecting attention) and regulation of displays of emotional states (definitions from Gross, 2014) to overcome language-related

challenges. These strategies range from problem- to emotion-focused coping strategies. However, the link to inclusion or a comparison between face-to-face and virtual work is lacking. Additionally, translation help from colleagues as well as other translation platforms have also been found useful in coping with language diversity (Tietze et al., 2021), which can be seen to be situated after the emotional response occurs.

However, little is known about how coping strategies differ between face-to-face and virtual work, and what impacts this may have on inclusion of linguistic minorities. Despite calls for better understanding of how virtuality affects organizational members (Wilson et al., 2008), especially those from minority groups (Trauth, 2017), much remains unclear. This is despite knowing that the space in which organizational phenomena are situated can greatly change how they are both enacted and perceived (Wright et al., 2022), and how virtual work has been found to affect employee well-being (Hill et al., 2022).

In this paper we follow the recommendations by Hill et al. (2022) and Raghuram et al. (2019) and theorize the underlying effects of virtuality through two dimensions:

- 1) Dispersion, i.e. “different forms of distance between participants in virtual work arrangements, including the extent to which virtual workers are distributed across space and time” (Raghuram et al., 2019, p. 6)
- 2) Technology dependence, defined as the “extent to which individuals rely on communication tools and the types of communication tools (e.g., email, text, and social media) they use in their work” (Raghuram et al., 2019, p. 6).

Dispersion can be categorized into three subdimensions (spatial distance, temporal distance, and out-of-office context) and technology dependence into four (communication leanness, asynchronicity, technical complexity, and flexible connectivity) (Hill et al. 2022). Of these subdimensions, our results indicated that communication leanness, asynchronicity, flexible connectivity, and spatial distance were the most conducive to the main findings of our study: namely the differences in coping strategies between face-to-face and virtual work, and the increased separation between language groups.

3. Methodology

Our methodology was semi-structured interviews (n=25) of highly-skilled migrants in a professional service firm in Finland and abductive, thematic analysis for comparing coping strategies across face-to-face and virtual work.

3.1. Context

The present study is set in the national context of Finland, a country with a steadily increasing number of immigrants – currently over 444,000, or around 8 percent of its inhabitants (Statistics Finland, 2020). In today's Finland, English plays an important role in education, business life, and media, with Finland ranked 9th among countries with the best non-native English skills worldwide (EF English Proficiency Index, 2021).

The case company is a branch of a typical knowledge-intensive, professional-service firm, with knowledge embodied in its individuals, the core asset of the company (O'Higgins, 2022). In 2019, the Finnish branch employed around 600 local employees and 35 international employees, which accounted for ca. 6 percent of the workforce. The migrant professionals represented 24 different countries and a great majority of them (23 out of 35) did not speak Finnish fluently (see Table 1). These employees comprised both individuals who had been rotated within the MNC and self-initiated expatriates. The main reason for seeking employment in this branch was its well-known, international brand.

The corporate language of the branch is unofficially Finnish, but English is also used as a working language. The use of English in internal communication, trainings, and even employment-specific documents was sporadic, upon request, and often took the form of a shorter version of the equivalent communication in Finnish.

3.2. Data collection: From face-to-face to virtual work

In March 2020, the COVID-19 pandemic spread to Finland, leading to an immediate shut-down to the country. This meant that participants were working remotely, primarily from home. Despite the gravity of the situation, this shift offered a fruitful real-life experiment to investigate something unheard of: Prior to the pandemic, remote work was frowned upon at the Finnish case company, so most employees were experiencing remote work for the first time.

Face-to-face work in our case organization is characterized by low to no levels of dispersion (as virtual work from home is not permitted) and low to medium levels of technology dependence – with e.g. emails, newsletters, and some videoconferencing being used alongside other communication. On the other hand, in virtual work the level of dispersion is high as all employees are in different locations – albeit in the same time zone, differentiating this group from previous research on global virtual teams (e.g. Hinds,

Neeley, & Cramton, 2014) – and the level of technological dependence is essentially absolute.

The first author of this study conducted a total of 25 in-depth, semi-structured interviews between May and June 2020 with current and former highly-skilled migrant professionals. She was able to interview 21 out of the 23 current migrant professionals at the company and two individuals who had previously left the company, none of whom spoke Finnish fluently. In addition, two interviews were conducted with double citizens. The high participation rate, with only two individuals declining the interview request, indicated the perceived importance of the topic. The interviewees included 15 females and 10 males; 60% held a managerial role; the level of Finnish language proficiency was mostly basic and correlated strongly with the number of years spent in Finland. Most interviews (23 out of 25) were conducted in English, the rest in Finnish with double-citizens. The interviews allowed us to understand the lived experiences of skilled migrants. The interviews lasted one hour on average, with the longest being 82 minutes and the shortest 45 minutes. All interviews were conducted in Microsoft Teams due to the pandemic.

The interviewees were asked questions such as “How is it to work at [the case company] as a foreign employee?” and “How do you think your Finnish proficiency impacts your everyday work-life?”. Retrospective questions on working face-to-face at the office were asked in addition to questions on the current state of work in virtual spaces, i.e. the respondents were invited to “First, think about your time at the office” and thereafter to turn their attention to virtual work. These open questions allowed interviewees to elaborate on themes they deemed important and speak less on those they found to be insignificant or irrelevant.

3.3. Data analysis

The bilingual first author transcribed the interviews and translated the relevant quotes from the Finnish interviews into English. The transcribed interviews were coded using Atlas.ti® version 22 - software and analyzed in the original language to stay as close as possible to the nuances and meanings expressed by the interviewees (Outila et al., 2019). In the exploratory phase, the first author divided the transcripts by space: face-to-face in the office and virtual work. She then analyzed the interview transcripts by coding prevalent concepts, driven by both an understanding of the literature along with the data set itself (Saldaña, 2013). Guided by the recommendations by van Maanen (1979), the data was analyzed through developing 1st and 2nd order

concepts, where the 1st order concepts closely reflect the words of the interviewees (i.e. the ‘facts’) and the 2nd order themes are ‘theories’ used to organize and explain these facts. In our dataset, the 1st order concepts were categorized into coping strategies and factors closely related to perceptions of belonging. The 2nd order themes (developed from the 1st order concepts) reflected the differences in coping strategies and relationships between minority and majority language groups in face-to-face and virtual work. Together, these themes pointed to tendencies towards more assimilation or inclusion of minority groups in face-to-face work, and exclusion in virtual work. The interview guide, coding table and interviewees’ details are available from the authors upon request.

4. Findings

4.1. Coping strategies in face-to-face work

We found that the migrant professionals had various ways of coping with language barriers when face-to-face at the office. Some of the most prevalent behaviors included translation help from both Google Translate and colleagues. Other common behaviors included cognitively reframing situations and attentional deployment. One prevailing pattern in these coping behaviors was that they were primarily response-based (Gross 2014) or emotion-focused (Lazarus, 1993) as in the office it was difficult to completely avoid hearing or seeing Finnish.

One of the most prevalent behaviors, in addition to using Google Translate, was asking team members for help with ad hoc translation. As an European interviewee explained, if she does not quite understand an informal conversation in Finnish, “...you then just have to put [in] a bit more effort and kind of ask somebody from your team ‘Hey, could you help me?’” (Interviewee 6, Assistant Manager, basic command of Finnish, Europe). The team and other closer Finnish colleagues are an important buffer against language barriers at the office, especially when these colleagues are in physical proximity. In this study we view translation as a response-based/emotion-focused coping strategy, as it is used *after* the emotional reaction of being subject to Finnish, instead of altering the stressors in one’s environment.

Many interviewees spoke about cognitively reframing situations where they do not understand the language being spoken. Many were accommodating towards the need to speak one’s own mother tongue: “I completely get it. And I don’t mind it.” (Interviewee 3, Senior, basic command in Finnish, Americas) Others also cognitively reframed themselves as the

foreigners, and as such did not want to burden the existing members of the organization with demands of change: “I’m coming from abroad and kind of intruding, so I don’t really feel like they should change everything just because I decided to move here.” (Interviewee 6, Assistant Manager, basic command of Finnish, Europe). Consequently, some interviewees also used situation selection to mitigate language differences, such as avoiding events to prevent others from having to switch from their mother tongue. However, these examples occurred less frequently.

Interviewees also spoke of attentional deployment, i.e. redirecting one’s mind to another activity, as a method of dealing with language barriers: “--the two persons I was in the meeting with, they started talking in Finnish together. So I just started doing something, doing my thing. I was doing my work.” (Interviewee 23, Manager, basic command of Finnish, Europe). This emotion-focused coping strategy served to lessen the attention the interviewees paid to the stressor – i.e. the Finnish language - and was used when the interviewees felt that the situation was not amenable to change.

In addition, migrant professionals were offered Finnish lessons once a week, which most interviewees found very useful to attend. Being submerged in a Finnish speaking-environment in the office also meant that many found their Finnish proficiency increased (passively), thus alleviating language barriers.

Overall, in the office it was very difficult, if not impossible, to completely avoid hearing or seeing Finnish. Hence, coping behaviors based on avoidance served merely to supplement the more response-based (Gross, 2014) or emotion-focused coping strategies (Lazarus, 1993) largely utilized in this setting. With these strategies, the highly-skilled migrant professionals faced an added burden of managing emotionally stressful situations.

4.2. Coping strategies in virtual work

The COVID-pandemic led to a sudden shift from face-to-face work at the office to fully virtual work. Coping behaviors turned more antecedent-based (Gross, 2014) or problem-focused (Lazarus, 1993) in virtual spaces as it became easier to control how much Finnish language one was exposed to.

Being in a different physical location from one’s Finnish colleagues made it more difficult to receive ad hoc translation help in virtual work. As the amount of written information increased in virtual work, many minority professionals found themselves at more of a disadvantage than in the office, where they could turn to colleagues for help: “It’s not a translation. You know, it’s just like a short version in English... So I feel

I always have part of the information. And sometimes when I'm talking to people [at the office], they are 'no no, it's not exactly like that.' And I'm like, 'really?' And then we sit together and they show me like 'you see here, it's written this, this and this.' And it's always in the Finnish part." (Interviewee 10, Junior, basic command of Finnish, Americas). Over-reliance on lean communication, coupled with the increased difficulty of asking colleagues for help in virtual spaces, left migrant professionals to cope with language barriers more independently.

In addition to not asking colleagues for translation help as frequently in virtual spaces, many also mentioned the ease with which written messages in Finnish could be overlooked or deleted - a form of situation selection as a coping strategy: *"Today I saw at least two or it might be even three news items, just totally in Finnish. ---I'm saying 'If you don't want me to understand, then I'm not going to put effort in it, extra time in it, to try to understand.' --- In a way I protest, so I didn't bother to check what was really said in those news items."* (Interviewee 22, Assistant Manager, intermediate command of Finnish, Asia/Oceania). Hence, the virtual setting increased avoidance behavior as Finnish colleagues were not close by. While this reduced awareness of what was going on in the organization, many found that deleting emails or not translating text were effective forms controlling how much Finnish one was subject to.

Similarly, due to flexible connectivity, it was easier to choose what events to join, and how much Finnish language to be exposed to, without the social pressure associated with face-to-face interaction. Many migrant professionals found it liberating not to be exposed to the Finnish language to the same extent as in the office, and also actively distanced themselves from Finnish. For example, an interviewee noted the ease of not joining meetings or social events: *"I got this invitation to keskiviikko [Wednesday] coffee time. But I'm not joining this because they are in Finnish."* (Interviewee 5, Manager, basic command of Finnish, Asia/Oceania).

In doing so, the interviewees were able to stay predominantly in their English-speaking bubble and focus on work tasks. Some felt that the overall amount of English increased in virtual work; in reality, this perception seemed mainly due to active avoidance, deletion, and disengagement from everything involving Finnish, potentially offering additional explanation for the findings of Klitmøller and Lauring (2016) on how virtual spaces seem to increase perceptions of managers using the corporate language.

This resulted in a sense of relief, or increased psychological well-being, among migrant professionals as they were less frequently excluded

due to the language barrier. An interviewee from Asia described how her team mates still had conversations without her in Finnish using virtual channels, but she was able to turn a blind eye to these invisible conversations. Yet, in the office she would feel actively excluded: *"Now during remote work, I don't hear that conversation. They will join privately in Teams with the people that they need. So I don't see those conversations, I don't hear those conversations. And I feel more relaxed, more relief... I don't feel stressed so much about being included like I am at the office."* (Interviewee 9, Senior, basic command of Finnish, Asia/Oceania)

Other interviewees described similar feelings of relief when they did not need to manage the emotional repercussions of language barriers, especially as hearing Finnish could be actively avoided: *"Now everybody's remote, they might talk in a separate chat or a separate meeting. --- In that way I don't feel anything because I don't know if they're talking or not. It is different than in all the office: you know some conversation is going on but you don't understand. Maybe I would have felt more struggle [in the office] in that way."* (Interviewee 11, Senior, basic command of Finnish, Asia/Oceania).

At the same time, virtual work largely removed possibilities for passive language-learning: *"My Finnish is bad. That's true. But when I'm at the office, I will learn new phrases all the time, because I talk and then my mind picks up the words that are repeated more often. And, eventually I will learn. But now there is zero level of Finnish around me. So I don't expect that my Finnish gets better, of course in this situation."* (Interviewee 1, Assistant Manager, basic command of Finnish, Africa/Middle-East). In the long run, this can negatively impact the alleviation of language barriers.

Hence, in virtual spaces coping strategies were largely problem-focused (Lazarus, 1993) or antecedent-based (Gross, 2014) i.e. focused on behavior *proceeding* emotional reactions. In virtual spaces where migrant professionals could more readily regulate their exposure to Finnish due to the use of lean communication, asynchronicity, dispersion, and flexible connectivity, these coping strategies were easier to employ than in physical spaces. At the same time, they resulted in a greater sense of control or psychological well-being for migrant professionals.

5. Discussion

Dimensions of virtual work such as asynchronicity, communication leanness, flexible connectivity and spatial distance are typically

regarded in a positive light – providing each employee with flexibility to tailor their work to one’s individual needs. What is less discussed is how dimensions of virtuality can be conducive of an environment where language-based sub-groupings are highlighted.

This study provides two distinct contributions on DEI in technology and organization. First, we offer a better understanding of how digital communication technologies affect members of organizations (Wilson et al., 2008). Overall, the findings contradict previous research suggesting that dimensions of virtuality – such as use of lean media and dispersion - reduce the risk of social categorization in virtual work (Klitmøller & Lauring, 2016; Klitmøller, Schneider, & Jonsen, 2015; Stahl et al., 2010). Secondly, we show the double-edged sword of virtual work on minority language group members.

In face-to-face work in the office it was very difficult, if not impossible, to completely avoid hearing or seeing Finnish due to mostly synchronous communication and minimal dispersion. This increased the prevalence of stressful language-based events which were difficult to avoid. Hence, coping strategies dealt primarily with the repercussions – both emotional and practical - of being subject to the Finnish language. This can be equated with the more response –based (Gross, 2014) or emotion-focused (Lazarus, 1993) coping strategies. In so doing, migrant professionals were more active agents in dealing with language barriers, making majority group members more aware of their needs and narrowing the language barrier through language learning. Although there clearly existed a sub-grouping between local employees and migrant professionals, it was more translucent and penetrable, providing a gateway for inclusion into the majority group, as seen in Figure 1.

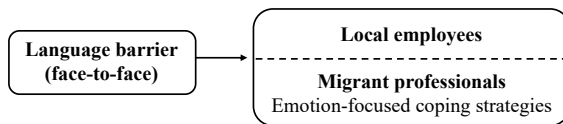


Figure 1. Sub-groupings in face-to-face work.

In virtual work, it is easier to rely on more problem-focused coping strategies to language barriers. This was primarily due to the dimensions of communication asynchronicity and high flexible connectivity: migrant professional could significantly more easily regulate their exposure to Finnish than face-to-face in the office, and without the same social pressure. Situation selection became a predominant coping behavior for dealing with language barriers. This coping strategy is problem - or antecedent – based (Gross, 2014), i.e. focused on behavior proceeding emotional reactions, and involves choosing what

situations to be subject to in order to safeguard oneself from negative emotional reactions. More problem-based coping strategies have been found to be associated with an increased sense of control and psychological well-being (Schat & Kelloway, 2000). However, they have also been found to strengthen sub-groupings: Hinds et al. (2014) found sub-groupings to strengthen when emotions resulting from language barriers were managed through modifying the situation or avoiding situations where language difficulties may occur. Our study also suggests a deepening of sub-groupings between majority and minority language groups within the organization. A lack of submersion in the Finnish language meant that migrant professionals also missed the opportunity to improve their language skills. These factors combined made fault lines between language groups became more impenetrable in virtual spaces (see Figure 2).

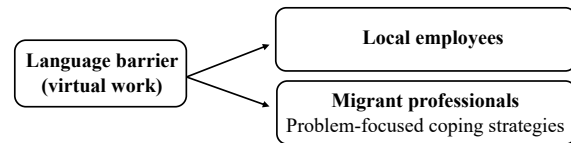


Figure 2. Sub-groupings in virtual work.

Hence, our findings suggest a double-edged sword for the role of virtual work for inclusion of linguistic minorities: while members of linguistic minority groups may feel less short-term emotional toll in virtual settings, they may also drift further from inclusion into the majority group in the long run. While the question of whether every individual desires to be included is an important one, research has shown the positive outcomes of inclusion at individual, team, and organizational levels (Shore et al., 2011).

Overall, we advance DEI research in IS by highlighting the role of language as a previously overlooked dimension of diversity. As organizations seek to benefit from technology-driven DEI initiatives, it is also important to highlight the possible negative outcomes of technology for certain minority groups. By doing so, this study deepens our understanding of the effect of technology on DEI and their implications for both organizations and individuals.

5.1. Limitations and future research

While this study is able to bring insight into the less-researched ‘dark side’ or negative implications of ICT for the inclusion of minority groups, it also has its limitations. While we acknowledge that different individuals may use different coping strategies that may be affected by their wider identities, we did not delve deeper into individual characteristics of the

highly-skilled migrants in this study, but encourage future researchers to do so. We also invite research positioned on the side of the local-language -speakers: How did their language-related behavior change from face-to-face to remote settings? Lastly, our study presents a promising avenue for research in other (linguistic) contexts, with different minority and majority groups. How would the situation be different if those speaking the local language were in the minority, or if English as a *lingua franca* was more formalized? Tapping into these lines of research would provide important boundary conditions for language and inclusion in virtual work.

5.2. Implications

We urge managers to recognize that language barriers can be a central challenge to ensuring that every organizational member feels included – especially in remote work, where dimensions of dispersion and technology dependence can reduce spontaneous interactions between members of different language groups and promote the avoidance of dissimilarity.

This requires recognizing the agency of minority group members in potentially torpedoing their own long-term inclusion to alleviate stressful emotional reactions on the short-run. This study points to a need for organizational policies and practices that alleviate negative emotional reactions without consequences to inclusion. This can include an inclusive language policy in both face-to-face and virtual work, which comprises consistent use of a shared language by managers and employees in formal and informal situations (Klitmøller & Lauring, 2016). In addition, a requirement of weekly physical presence at the office may provide a counter-balance to the language-based segregation seen in virtual work.

6. Conclusion

With the growing significance of DEI initiatives in organizations, technology is often presented as a means to promote inclusion by addressing invisible barriers related to gender, ethnicity, age, or disability. This study highlights the largely overlooked dimension of language as a barrier to inclusion for highly-skilled migrants in organizations, specifically in the context of virtual work. Our results contradict previous research and suggest that virtual work may in fact deepen the divide between majority and minority language groups, between the ‘haves’ and the ‘have-nots’. This finding has important practical implications for multilingual organizations where virtual work is ‘the new normal’.

7. References

- Bordia, S., & 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, 415-428.
- CIPD. (2021). Managing multicultural teams: Exploring the opportunities and challenges. https://www.cipd.org/globalassets/media/knowledge/knowledge-hub/reports/managing-multicultural-teams_tcm18-94625.pdf
- Ciuk, S., Śliwa, M., & Harzing, A. W. (2022). Implementing the equality, diversity, and inclusion agenda in multinational companies: A framework for the management of (linguistic) diversity. *Human Resource Management Journal*, 1-21.
- Dotan-Eliaz, O., Sommer, K. L., & Rubin, Y. S. (2009). Multilingual groups: Effects of linguistic ostracism on felt rejection and anger, coworker attraction, perceived team potency, and creative performance. *Basic and Applied Social Psychology*, 31(4), 363-375.
- EF English Proficiency Index. (2021). EF English Proficiency Index - A Ranking of 112 Countries and Regions by English Skills. Retrieved from <https://www.ef.com/wwen/epi/> on 18.1.2022.
- Giles, H., & Johnson, P. (1987). Ethnolinguistic identity theory: A social psychological approach to language maintenance. *International Journal of the Sociology of Language*, 68, 69-99.
- Gross, J. J. (2014). Emotion regulation: Conceptual foundations. In *Handbook of emotion regulation*. New York, NY: Guilford Publications.
- Gudykunst, W.B. and Schmidt, K.L. (1988). Language and ethnic identity: an overview and prologue. In Gudykunst, W.B. (Ed.), *Language and Ethnic Identity, Multilingual Matters*. Clevedon: Avon, pp. 1-14.
- Harzing, A.-W., & Feely, A. J. (2008). The language barrier and its implications for HQ-subsidiary relationships. *Cross Cultural Management: An International Journal*, 15(1), 49-61.
- Heath, D., & Babu, R. (2017). Theorizing managerial perceptions, enabling IT, and the social inclusion of workers with disabilities. *Information and Organization*, 27(4), 211-225.
- Hicks-Clarke, D., & Iles, P. (2000). Climate for diversity and its effects on career and organisational attitudes and perceptions. *Personnel review*, 29(3), 324-345.
- Hill, N. S., Axtell, C., Raghuram, S., & Nurmi, N. (2022). Unpacking virtual work's dual effects on employee well-being: An integrative review and future research agenda. *Journal of Management*, 1-41.
- Hinds, P. J., Neeley, T. B., & Cramton, C. D. (2014). Language as a lightning rod: Power contests, emotion regulation, and subgroup dynamics in global teams. *Journal of International Business Studies*, 45(5), 536-561.
- Klitmøller, A., & Lauring, J. (2016). When distance is good: A construal level perspective on perceptions of inclusive international language use. *International Business Review*, 25(1), 276-285.
- Klitmøller, A., Schneider, S. C., & Jonsen, K. (2015). Speaking of global virtual teams: language differences,

- social categorization and media choice. *Personnel Review*, 44(2), 270-285.
- Kulkarni, M., & Sommer, K. (2015). Language-based exclusion and prosocial behaviors in organizations. *Human Resource Management*, 54(4), 637-652.
- Lauring, J., & Selmer, J. (2012). Positive dissimilarity attitudes in multicultural organizations: The role of language diversity and communication frequency. *Corporate Communications: An International Journal*, 17(2), 156-172.
- Lazarus, R. S. (1993). Coping theory and research: past, present, and future. *Psychosomatic medicine*, 55(3), 234-247.
- Lazarus, R. (1999). *Stress and emotion: A new synthesis*. New York, NY: Springer.
- Lazarus, R. S. (2006). Emotions and interpersonal relationships: Toward a person-centered conceptualization of emotions and coping. *Journal of Personality*, 74(1), 9-46.
- Lønsmann, D. (2014). Linguistic diversity in the international workplace: Language ideologies and processes of exclusion. *Multilingua*, 33(1-2), 89-116.
- Marchiondo, L., Ran, S., & Cortina, L. (2015). Modern Discrimination. In A. Colella & E. King (Eds.), *The Oxford handbook of workplace discrimination*. New York: Oxford University Press.
- Marschan-Piekkari, R., Welch, D., & Welch, L. (1999). In the shadow: The impact of language on structure, power and communication in the multinational. *International Business Review*, 8(4), 421-440.
- O'Higgins, C. (2022). *The role of firm characteristics and knowledge in the international management of professional service firms*. (PhD). Deusto Business School, Spain.
- Outila, V., Piekkari, R., & Mihailova, I. (2019). A discursive void in a cross-language study on Russia: Strategies for negotiating shared meaning. *Management and Organization Review*, 15(2), 403-427.
- Raghuram, S., Hill, N. S., Gibbs, J. L., & Maruping, L. M. (2019). Virtual work: Bridging research clusters. *Academy of Management Annals*, 13(1), 308-341.
- Robert Jr, L. P., Dennis, A. R., & Ahuja, M. K. (2018). Differences are different: Examining the effects of communication media on the impacts of racial and gender diversity in decision-making teams. *Information Systems Research*, 29(3), 525-545.
- Saarinen, J., & Piekkari, R. (2015). Management is back! Cross-cultural encounters in virtual teams. In N. Holden, S. Michailova, & S. Tietze (Eds.), *The Routledge companion to cross-cultural management* (pp. 420-430).
- Saldaña, J. (2013). *The coding manual for qualitative researchers*: Sage.
- Schat, A. C., & Kelloway, E. K. (2000). Effects of perceived control on the outcomes of workplace aggression and violence. *Journal of Occupational Health Psychology*, 5(3), 386.
- Shore, L. M., Cleveland, J. N., & Sanchez, D. (2018). Inclusive workplaces: A review and model. *Human Resource Management Review*, 28(2), 176-189.
- Shore, L. M., Randel, A. E., Chung, B. G., Dean, M. A., Holcombe Ehrhart, K., & Singh, G. (2011). Inclusion and diversity in work groups: A review and model for future research. *Journal of Management*, 37(4), 1262-1289.
- Stahl, G. K., Maznevski, M. L., Voigt, A., & 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), 690-709.
- Statistics Finland. (2020). Immigrants in the population. https://www.stat.fi/tup/maahanmuutto/maahanmuuttaj_ma-vaestossa_en.html.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. *The Social Psychology of Intergroup Relations*, 33(47), 74.
- Tajfel, H. and Turner, J.C. (1986), The social identity theory of intergroup behaviour. In Worchel, S. and Austin, W.G. (Eds.), *Psychology of Intergroup Relations*. Chicago: Nelson-Hall Publishers pp. 7-24.
- Tange, H., & Lauring, J. (2009). Language management and social interaction within the multilingual workplace. *Journal of Communication Management*, 13(3), 218-232.
- Tietze, S., Back, H., & Piekkari, R. (2021). Multilingual and Intercultural Communication. In F. Cooren & P. Stücheli-Herlach (Eds.), *Handbook of Management Communication* (pp. 373-388). De Gruyter Mouton.
- Trauth, E. (2017). A research agenda for social inclusion in information systems. *The Database for Advances in Information Systems*, 48(2), 9-20.
- Trauth, E. M. (2002). Odd girl out: An individual differences perspective on women in the IT profession. *Information Technology & People*. 15(2), 98-118.
- Trauth, E. M. (2013). The role of theory in gender and information systems research. *Information and Organization*, 23(4), 277-293.
- Van den Broek, E., Sergeeva, A., & Huysman, M. (2021). When the machine meets the expert: An ethnography of developing AI for hiring. *MIS Quarterly*, 45(3).
- Van Maanen, J. (1979). The fact of fiction in organizational ethnography. *Administrative Science Quarterly*, 24(4), 539-550.
- Wilson, J. M., Boyer O'Leary, M., Metiu, A., & Jett, Q. R. (2008). Perceived proximity in virtual work: Explaining the paradox of far-but-close. *Organization Studies*, 29(7), 979-1002.
- Wright, A. L., Irving, G., Zafar, A., & Reay, T. (2022). The role of space and place in organizational and institutional change: A systematic review of the literature. *Journal of Management Studies*. <https://doi.org/10.1111/joms.12868>.
- Xie, W., Overgoor, G., Lee, H. H. M., & Han, Z. (2023). Automated detection of skin tone diversity in visual marketing communication. In *56th Hawaii International Conference on System Sciences* (pp. 3817-3827).
- Yasuoka, M. (2023). Information technology adaption by senior citizens: Why seniors use IT. In *56th Hawaii International Conference on System Sciences* (pp. 1859-1868).