INSTITUTO
UNIVERSITÁRIO
DE LISBOA

The relationship between transformational leadership and belonging in hybrid work environments: Propinquity as a moderator

Morlin Sofia Müller

Master in Human Resources Management and Organizational Consulting

Supervisor:
PhD Patrícia Lopes Costa,
Department of Human Resources and Organizational Behavior, ISCTE-Instituto Universitário de Lisboa

May, 2025

BUSINESS SCHOOL

Department of Human Resources and Organizational Behavior

The relationship between transformational leadership and belonging in hybrid work environments: Propinquity as a moderator

Morlin Sofia Müller

Master in Human Resources Management and Organizational Consulting

Supervisor:
PhD Patrícia Lopes Costa,
Department of Human Resources and Organizational Behavior, ISCTE-Instituto Universitário de Lisboa

May, 2025

Abstract

The rise of hybrid work, accelerated by digitalization and the COVID-19 pandemic, has transformed organizational dynamics and leadership challenges. This thesis explores how transformational leadership behaviors affect employees' sense of belonging in hybrid work environments, focusing on the moderating role of electronic propinquity, the psychological closeness fostered by digital communication. Using a quantitative, correlational design, data were collected from 189 hybrid team employees across various industries via an online survey. Three hypotheses were tested: (1) transformational leadership behaviors are positively associated with belonging; (2) specific transformational leadership dimensions as Fostering the Acceptance of Group Goals, Identifying and Articulating a Vision and Providing Individualized Support are more strongly linked to belonging; and (3) Electronic propinquity moderates the transformational leadership – belonging relationship. Results confirmed that transformational leadership behaviors significantly predict employees' sense of belonging, both as group connection and individual uniqueness. Fostering Group Goals was the strongest predictor, while Identifying and Articulating a Vision particularly supported uniqueness. Unexpectedly, higher electronic propinquity weakened the positive effect of transformational leadership on belonging, suggesting that in highly connected digital environments, peer interactions may substitute for formal leadership in meeting group and individual needs. These findings highlight the context-dependent impact of transformational leadership and the growing influence of peer dynamics in hybrid teams. The study offers practical insights for leaders and organizations aiming to foster belonging in hybrid work settings and emphasizes the importance of adaptive leadership strategies that balance group cohesion with individual expression.

Keywords: Hybrid work environments, Transformational Leadership, Belonging, Electronic Propinquity

JEL Classification codes:

D23 – Organizational Behavior

M12 – Personnel Management

O15 – Human Resources

Resumo

A ascensão do trabalho híbrido, acelerada pela digitalização e pela pandemia de COVID-19, transformou as dinâmicas organizacionais e os desafios de liderança. Esta tese investiga como os comportamentos de liderança transformacional influenciam a sensação de pertença dos colaboradores em ambientes híbridos, com foco no papel moderador da propinquidade eletrónica, ou seja, a proximidade psicológica gerada pela comunicação digital. Com um desenho quantitativo correlacional, foram recolhidos dados de 189 funcionários de equipas híbridas de diversos setores por meio de pesquisa online. Testaram-se três hipóteses: (1) comportamentos de liderança transformacional associam-se positivamente à pertença; (2) dimensões específicas, como Fomentar Objetivos de Grupo, Identificar e Articular uma Visão e Oferecer Suporte Individualizado, têm ligação mais forte com a pertença; e (3) a propinquidade eletrónica modera a relação entre liderança transformacional e pertença. Os resultados confirmaram que a liderança transformacional prediz significativamente a sensação de pertença, tanto na conexão grupal quanto na singularidade individual. Fomentar Objetivos de Grupo foi o preditor mais forte, enquanto Identificar e Articular uma Visão apoiou especialmente a singularidade. Surpreendentemente, maior propinquidade eletrónica enfraqueceu o efeito positivo da liderança transformacional, sugerindo que, em ambientes digitais muito conectados, as interações entre colegas podem substituir a liderança formal para atender às necessidades do grupo e do indivíduo. Esses resultados ressaltam o impacto contextual da liderança transformacional e a importância das dinâmicas entre pares em equipas híbridas, oferecendo insights para líderes e organizações promoverem a pertença nesse novo cenário.

Palavras-chave: Ambientes de trabalho híbridos, Liderança Transformacional, Pertença, Propinquidade Eletrónica

Códigos do sistema de classificação JEL:

D23 – Comportamento Organizacional

M12 – Gestão do Pessoal

O15 – Recursos Humanos

Table of Contents

1 Introduction 1

2 Literature Review 3

2.1 Hybrid work environments 4

2.2 Belonging 6

2.3 Transformational Leadership 9

2.4 Electronic Propinquity 13

2.5 Conceptual Model 16

3 Methodology 17

3.1 Sample and Participants 17

3.2 Procedure 19

3.3 Variable Measures 19

4 Obtained Results, Findings and Discussion 21

4.1 Research Findings 22

4.1.1 Correlation Matrix 22
4.1.2 Hypothesis 1 25
4.1.3 Hypothesis 2 27
4.1.4 Hypothesis 3 30

4.2 Discussion 34

4.3 Implications for Practice 41

4.4 Limitations and Future Research 43

5 Conclusion 45

Bibliographical References 48

Annexes 56

Annex A: Moderation Analysis for Belonging Total 56

Annex B: Moderation Analysis for Belonging Subscale 58

Annex C: Moderation Analysis for Uniqueness 60

List of figures

Figure 2.1: Graphic Representation of the Research Model 16
Figure 4.1: Moderation of TL total and Belonging total by EP 33
Figure 4.2: Moderation of TL total and Uniqueness by EP 34
Figure A.1: Moderation of Identifying and Articulating Vision and Belonging total by EP 56
Figure A.2: Moderation of Providing an Appropriate Model and Belonging total by EP 56
Figure A.3: Moderation of Fostering the Acceptance of Group Goals and Belonging total by EP 57
Figure A.4: Moderation of Providing Individualized Support and Belonging total by EP 57
Figure B.1: Moderation of Identifying and Articulating a Vision and Belonging subscale by EP 58
Figure B.2: Moderation of Providing an Appropriate Model and Belonging subscale by EP 58
Figure B.3: Moderation of Fostering the Acceptance of Group Goals and Belonging subscale by EP 59
Figure B.4: Moderation of Providing Individualized Support and Belonging subscale by EP 59
Figure C.1: Moderation of Identifying and Articulating Vision and Uniqueness by EP 60
Figure C.2: Moderation of Providing an Appropriate Model and Uniqueness by EP 60
Figure C.3: Moderation of Fostering the Acceptance of Group Goals and Uniqueness by EP 61
Figure C.4: Moderation of Providing Individualized Support and Uniqueness by EP 61

List of tables

Table 4.1 Correlations for Study Variables 24
Table 4.2 Linear Regression for Belonging total 25
Table 4.3 Linear Regression for Belonging subscale 26
Table 4.4 Linear Regression for Uniqueness 26
Table 4.5 Multiple Regression for Belonging total 28
Table 4.6 Multiple Regression for Belonging subscale 29
Table 4.7 Multiple Regression for Uniqueness 30
Table 4.8 Moderation Analysis Results: Interaction Effects 32

Glossary of acronyms

EP	Electronic Propinquity
H	Hypothesis
SIT	Social Identity Theory
SDT	Self-Determination Theory
TL	Transformational Leadership
TPV	Team Perceived Virtuality

1 Introduction

The modern workplace has undergone a significant transformation, driven by digitalization (Bresciani et al., 2021) and accelerated by the COVID-19 pandemic (Bouziri et al., 2020). This has led to the increasing prevalence of hybrid work models, blending remote and on-site arrangements (Bell et al., 2023). The 2024 Global Marco New Consumer report indicates a strong preference for hybrid work environments, with 43.54% across 11 countries favoring this model over fully in-office or fully remote arrangements. This blend of remote and in-office work has emerged as a lasting trend (Gibson et al., 2023), reshaping the way organizations operate in today's dynamic business environment and challenging traditional dynamics of leadership.

While hybrid work environments offer advantages like flexibility and an improved work-life balance (Jooss et al., 2021), they also present a range of challenges. One of them is a diminished sense of belonging among employees in these new hybrid work environments. As hybrid teams are particularly vulnerable to the formation of subgroups and faultlines (Carton & Cummings, 2012; O'Leary & Mortensen, 2010), this can negatively impact team cohesion and performance, potentially weakening team identity and belonging. The challenge lies in mitigating the "us vs. them" dynamic that can arise from geographic, technological and linguistic differences, as well as from the temporal dimension and fluctuating team configurations that further complicate subgroup dynamics (Handke et al., 2024). In fact, a Gallup survey (2022) found that 32% of hybrid employees reported feeling less connected to their organization's culture. This significant percentage shows that a substantial portion of the workforce experiences a diminished sense of belonging in hybrid work environments.

A sense of belonging refers to the emotional experience of being accepted, valued and connected to a group or community. It is considered a fundamental human need and encompasses feelings of inclusion and attachment, where individuals perceive themselves as integral members of a social unit (Baumeister & Leary, 1995). Research shows that employees with a strong sense of belonging report greater job satisfaction and work-life balance, which, in turn, fosters higher engagement, leading to improvements in both individual well-being and team performance (Dewi et al., 2020). However, a sense of belonging cannot be achieved instantaneously; rather, it develops gradually through trust, shared experiences and intentional effort (Allen et al., 2021).

Leadership plays a crucial role in this process by setting the tone, modelling inclusive behaviours and creating structures that encourage collaboration and support, thereby nurturing a sustained sense of belonging (Korkmaz et al., 2022). While various leadership styles exist, one leadership style that has demonstrated effectiveness in both face-to-face settings (Jensen et al., 2018) as well as virtual settings (Purvanova & Bono, 2009), is the transformational leadership theory, first introduced by Burns (1978). Transformational leadership involves leaders who inspire and motivate followers to exceed their own

self-interests for the sake of the organization, fundamentally changing their values, beliefs and attitudes (Bass, 1999). Especially in virtual environments, it is frequently considered the most effective leadership style, particularly in contrast to transactional leadership, as it fosters trust, collaboration and innovation, elements crucial in the absence of face-to-face interactions (Ruggieri, 2009).

While there is substantial work connecting transformational leadership with variables such as engagement and motivation (Bader et al., 2023), performance (Deng et al., 2023; Jiatong et al., 2022), and team dynamics (Lehmann-Willenbrock et al., 2015), its specific link to an individual's sense of belonging remains less extensively explored. Particularly in the context of hybrid environments, it persists as relatively underexplored. Hybrid work environments are not just a substitute for traditional co-located work arrangements but also qualitatively different from our previous understanding of virtual work environments (Handke et al., 2024), meaning that different principles and impacts of transformational leadership may apply in this specific context, potentially shaping a sense of belonging in unique ways. Thus, the main research question deals with whether there is a positive relationship between transformational leadership behaviors and an individual's sense of belonging in hybrid work environments.

Moreover, transformational leadership encompasses six dimensions: *Identifying and Articulating a Vision, Providing an Appropriate Model, Fostering the Acceptance of Group Goals, High Performance Expectations, Providing Individualized Support* and *Intellectual Stimulation* (Podsakoff et al., 1990). Each of these dimension address distinct aspects of transformational leadership and, consequently, are likely to impact an individual's sense of belonging in different ways and with varying intensities. For example, *Providing Individualized Support* directly addresses followers' personal needs, enhancing feelings of value and emotional connection (Wan et al., 2022), thereby strengthening belonging, whereas *Setting High Performance Expectations* can motivate individuals to strive for excellence, but if not balanced with adequate support, it may also create pressure and anxiety (England et al., 2019), thus potentially even undermining a sense of belonging. Therefore, the second research question deals with whether there are certain dimensions that are more strongly positively associated with an individual's sense of belonging compared to the other dimensions.

Furthermore, the effectiveness of leadership behaviours may also depend on other influencing and moderating factors, such as propinquity. Electronic propinquity refers to the psychological feeling of nearness or closeness that individuals experience when communicating through electronic media (Korzenny, 1978). It is conceptualized as a continuum of subjective perception, where users feel functionally, if not physically, close to one another despite being separated by distance (Walther & Bazarova, 2008). The concept of electronic propinquity influencing the relationship between transformational leadership and belonging, particularly in hybrid or virtual environments, remains a relatively underexplored field. Thus, this area presents a valuable opportunity for further investigation,

as understanding how electronic propinquity interacts with transformational leadership could provide deeper insights into fostering a sense of belonging in increasingly digital workplaces. Therefore, the third research question aims to investigate whether electronic propinquity acts as a moderating factor in the relationship between transformational leadership and belonging, strengthening the relationship between transformational leadership and belonging.

Therefore, this thesis examines the relationship between transformational leadership and an individual's sense of belonging in hybrid work environments, exploring the moderating role of electronic propinquity in this dynamic. To address these questions, the study will employ a quantitative, correlational research design, utilizing an online survey to gather data from employees working in hybrid environments. The findings will provide actionable insights for leaders and organizations seeking to cultivate a strong sense of belonging among their team members in the evolving landscape of hybrid work.

Following this introduction, Chapter 2 will present a comprehensive review of the relevant literature, providing a deeper understanding of hybrid work environments, the concept of belonging, transformational leadership and electronic propinquity. Chapter 3 will detail the methodology employed in this study, including the research design, sample and participants, procedure and variable measures. Chapter 4 will present the results, discussion, implications for practice as well as suggestions for future research. Finally, the thesis will be concluded in Chapter 5, which will include a summary of the key findings and overall conclusions.

2 Literature Review

The following section provides a comprehensive overview of the key concepts and theoretical frameworks that form the basis of this study. It begins by exploring the evolution and defining characteristics of hybrid work environments, highlighting both their advantages and challenges. Building on this context, the review then examines the concept of belonging, its relevance in organizational settings and the psychological theories that inform our understanding of it. Finally, the section explores transformational leadership and electronic propinquity, outlining their roles and interconnections within hybrid teams. This literature review serves as the foundation for the hypotheses and research model that follow.

2.1 Hybrid work environments

The digitalization has profoundly transformed the traditional workplace, shifting it from a fully in-office model to one that increasingly relies on computer-mediated communication as a central component of remote work practices (Aleem et al., 2023). Especially the COVID-19 pandemic has triggered a widespread adoption of remote work as a necessity due to social distancing requirements (Ng et al., 2022). As a result, existing forms of collaboration, communication structures and work arrangements (e.g., telework) have been significantly strengthened and became more widespread (Gilson et al., 2021). Organizations are increasingly embracing flexibility in how, where and when work takes place, building upon pre-existing trends towards more adaptable work environments (Harris, 2016).

However, with the pandemic subsiding, employees worldwide are showing a reluctance to return to the office daily. In this vein, one model that has gained significant prominence in recent times and is increasingly regarded as the new norm is the hybrid work model (Gibson et al., 2023). Hybrid work environments refer to work arrangements where team members operate from diverse locations, combining both face-to-face and virtual interactions. This setup allows employees to split their work time between the office and other locations, such as home or coworking spaces (Ekelman & Kantor, 2023). The defining feature of hybrid teams is their ability to rely on both in-person and electronic communication on a daily or weekly basis, which creates opportunities for collaboration across multiple locations (Cousins et al., 2007; Halford, 2005).

Hybrid teams are characterized by their members' capacity to work from different locations, including the office, with varying degrees of virtuality (Foster et al., 2015). Initially, virtuality was often defined as the degree of technology reliance and geographical dispersion within a team (Dulebohn & Hoch, 2017; Gibbs et al., 2017). However, some authors argue that geographic dispersion should not be considered a defining attribute of virtuality, as team members can be in the same office and still rely heavily on virtual tools for communication and collaboration. In this vein, Kirkman & Mathieu (2005) propose a more nuanced definition of team virtuality, consisting of three dimensions: the degree to which team members use virtual tools to coordinate and carry out team processes, the amount of informational value conveyed by such tools and the synchronicity of team member virtual interaction. Informational value refers to the richness and depth of information that virtual tools can convey, with high informational value providing rich, detailed and nuanced information, often simulating face-to-face interactions, whereas tools with low informational value offer more limited or superficial information. Synchronicity pertains to whether team interactions occur in real-time (synchronous) or at different times (asynchronous), with synchronous interactions happening simultaneously, such as video conferencing, and asynchronous interactions involving a time lag, like email exchanges (Kirkman & Mathieu, 2005).

This conceptualization moves beyond geographic dispersion and focuses on how teams utilize technology to interact and perform their tasks. According to the authors, even co-located teams can display high levels of virtuality if they rely heavily on virtual tools with low informational value and asynchronous communication. Conversely, geographically dispersed teams might have lower virtuality if they use rich, synchronous virtual tools that closely simulate face-to-face interaction (Kirkman & Mathieu, 2005).

Hybrid work arrangements have shown to yield numerous positive outcomes for both employees and organizations (Verma et al., 2023). Research indicates that flexible work environments, including hybrid models, can significantly enhance job satisfaction and productivity while also reducing job-induced stress and turnover rates (Choudhury 2020; Ferreira et al., 2020). Employees benefit from increased flexibility, allowing them to balance personal and professional responsibilities more effectively, which contributes to improved mental well-being and overall work quality (Jooss et al., 2021). Organizations, in turn, can leverage this flexibility to optimize operational costs and attract a diverse talent pool, as remote work options appeal to a broader range of candidates (Newman & Ford, 2021).

However, hybrid work arrangements do not come without their own challenges, including potential work-life imbalances, a lack of strategic oversight from the Human Resources Management function and feelings of isolation among employees due to insufficient organizational support (Jooss et al., 2021). According to a study by Wontorczyk & Rożnowski (2022), hybrid workers experienced more negative aspects of workplace relationships compared to remote and on-site workers. Moreover, as previously stated, hybrid teams are characterized by both geographic dispersion and technology dependence (Kirkman & Mathieu, 2005); however, unlike traditional virtual teams, they are further complicated by temporal dynamics and fluctuating team configurations (Handke et al., 2024). These configurations aren't static; they change over time, resulting in a vast number of potential combinations of team member locations. As Handke et al. (2024) illustrate, even in a small team, the possibilities are numerous: For example, a three-person team can experience a range of arrangements, from all members being co-located or fully remote to various combinations of two members at the office while the third works remotely.

Given these dynamic and varied configurations, hybrid teams are particularly vulnerable to the creation of subgroups and faultlines (Carton & Cummings, 2012; O'Leary & Mortensen, 2010), which can negatively affect team cohesion and performance. Hincapie & Costa (2024) highlight that hybrid environments can intensify the "us vs. them" dynamic by emphasizing geographic, technological and linguistic differences, ultimately weakening team identity and belonging. The ambiguous and dynamic configuration of hybrid teams, with some members working remotely and others in the office (Bell et al., 2023), likely promotes subgroup formation based on individual characteristics as well as on location

and time work preferences, strengthening stronger subgroups and faultlines and thus potentially leading to increased conflict and decreased trust among team members (Polzer et al., 2006).

Critically, the temporal dimension further complicates subgroup dynamics in hybrid teams. The frequency and consistency of co-location patterns significantly influence the strength and salience of subgroup identities (Handke et al., 2024). Consistent co-location, where certain members regularly work together in the office on specific days, allows for the development of shared experiences, communication norms and stronger interpersonal bonds (Wener & Woodgate, 2016), solidifying subgroup cohesion but potentially creating out-group exclusion for those not present (Fiol & O'Connor, 2005; O'Leary & Mortensen, 2010). Over time, this reinforcement of in-group and out-group distinctions may lead to a diminished sense of belonging to the overall team. As geographic location can become a salient attribute triggering social categorization processes, this can fragment the team's identity, with members identifying more strongly with their co-located subgroup than with the entire team, reducing the desire to exchange knowledge and cooperate with 'outgroup' members, ultimately compromising important team processes and states (Carton & Cummings, 2012; O'Leary & Mortensen, 2010).

Furthermore, hybrid teams face unique challenges in establishing effective communication, trust-building and conflict resolution (Hincapie & Costa, 2024). The absence of non-verbal cues and contextual information between differently co-located individuals may exacerbate misunderstandings and biases (Hanzis & Hallo, 2024). This can make it more difficult for team members to feel connected and understood, potentially weakening their sense of belonging to the team and organization. Additionally, hybrid work arrangements can intensify issues related to proximity bias (Mortensen & Haas, 2021) and social isolation. Team members who work remotely more often may feel excluded from important discussions and decision-making processes, leading to a diminished sense of belonging and engagement with the team and organization (Hincapie & Costa, 2024).

All in all, it can be concluded that hybrid work arrangements may have a detrimental effect on employees' sense of belonging to the team as a whole due to the increased risk of subgroup formation, communication challenges and proximity biases. These factors can collectively undermine team cohesion and organizational identification, making it crucial for leaders to implement strategies that foster inclusion and connection in hybrid work environments.

2.2 Belonging

In hybrid work environments, where employees may experience varying degrees of physical and emotional distance from their colleagues, fostering a sense of belonging becomes essential for enhancing employee engagement, collaboration and overall job satisfaction. Moreover, the recent

challenges posed by global events, such as the COVID-19 pandemic, have underscored the importance of belonging. The disruptions of social connections during this period highlighted how the failure to achieve adequate belonging can influence individual behavior and broader social movements (Gray et al., 2022). This context emphasizes the need for leaders to cultivate environments that prioritize belonging, particularly in times of crisis.

Baumeister & Leary (1995) established a foundational understanding of belonging as a fundamental human need, which is characterized by the desire for interpersonal attachments and social connections. A sense of belonging refers to the emotional experience of being accepted, valued and connected to a group or community and encompasses feelings of inclusion and attachment, where individuals perceive themselves as integral members of a social unit. They argue that the need to belong is a core motivation that influences various aspects of human behavior, including emotional well-being, self-esteem and social interactions (Baumeister & Leary, 1995). Furthermore, belonging is conceptualized as a complex construct with multifaceted components, predictors and outcomes. It is not merely the presence of social connections but also the quality and depth of these relationships that contribute to an individual's sense of belonging (Allen et al., 2021, 2022).

To further understand the underpinnings of belonging, Social Identity Theory (SIT) by Tajfel & Turner (1986) provides a framework for understanding how individuals derive a sense of belonging from their membership in social groups. SIT suggests that individuals categorize themselves and others into social groups and that these social identities contribute to their self-concept. A core tenet of SIT is that individuals are motivated to maintain a positive social identity, which is often achieved through in-group favoritism and intergroup differentiation. When individuals perceive their group membership as positive and valued, they experience a stronger sense of belonging and are more likely to engage in behaviors that benefit the group (Tajfel & Turner, 1986). Therefore, fostering a positive social identity within work groups can enhance employees' sense of belonging and promote collaboration and commitment.

In addition, Self-Determination Theory (SDT) by Ryan & Deci (2022) offers valuable insights into the psychological needs that drive individuals to seek connection and acceptance. SDT indicates that individuals have three basic psychological needs: autonomy, competence and relatedness. The need for relatedness, in particular, directly aligns with the concept of belonging, as it involves the desire to feel connected to others, to experience caring relationships and to be an integral part of a community (Ryan & Deci, 2022). When individuals experience satisfaction of their needs for autonomy and competence within a social context that also fulfills their need for relatedness, they are more likely to develop a strong sense of belonging and internalize the values and goals of the group (Ryan & Deci, 2000). Thus, autonomy-supportive environments that also foster competence and relatedness are crucial for nurturing belonging.

Moreover, Chung et al. (2019) further refine the understanding of belonging by contextualizing it specifically within work group dynamics. They define belongingness as the degree to which employees perceive supportive and caring relationships with their work group members. This definition emphasizes not only the presence of social connections but also the quality of interactions that foster a sense of acceptance, value and care among group members. According to their framework, belongingness is a critical component of work group inclusion, which also encompasses the need for uniqueness, highlighting that individuals can simultaneously satisfy their belongingness and uniqueness needs within a group setting (Chung et al., 2019). The emphasis on both belongingness and uniqueness aligns with the principles of optimal distinctiveness theory, which posits that individuals seek to balance their need for inclusion with their desire for individuality (Brewer, 1991). This balance is crucial in hybrid work environments, where employees may struggle to maintain their unique identities and preferences while also feeling connected to their teams. Thus, the choice of Chung et al.'s (2019) definition is particularly relevant for the study's research purpose, as it directly addresses the dynamics of belonging in work environments, especially in the context of hybrid work settings. The focus on supportive and caring relationships within work groups highlights the relational aspects of belonging, which can be challenged by the reduced face-to-face interactions common in hybrid models (Allen et al., 2015). Moreover, the emphasis on both belongingness and uniqueness addresses the potential for employees to feel disconnected from their teams while also struggling to maintain their individual identities in a more distributed work environment (Hornsey & Jetten, 2004). This is critical, as research suggests that when employees feel they cannot express their authentic selves or that their contributions are not valued, their sense of belonging diminishes, negatively impacting engagement and performance (Shore et al., 2011).

Beyond being a fundamental human need, belonging can have several positive outcomes for both individual well-being and organizational effectiveness. For instance, belonging is positively associated with well-being as extensive research evidence demonstrates that social connections, reciprocal relationships and a sense of belonging are correlated with better mental and physical health, longevity and overall well-being across cultures (Hammell, 2014). In fact, a lack of belonging can even be associated with a higher risk of depression symptoms (Dutcher et al., 2022). Moreover, belonging enhances motivation and engagement. When individuals feel connected to a group or organization, they are more likely to engage actively, contribute ideas and participate in collaborative efforts (Raza et al., 2020). This sense of connection can drive individuals to strive for excellence and take initiative, leading to enhanced academic performance and emotional resilience (Gray et al., 2020). At the organizational level, research shows that employees with a stronger sense of belonging in their workplace report greater job satisfaction and work-life balance, which in turn fosters morale and commitment and enhances overall performance (Dewi et al., 2020). However, a sense of belonging

cannot be established instantaneously, and it benefits from effective leadership to foster trust, promote inclusivity and cultivate a supportive environment, with its significance being particularly pronounced in the context of transformational leadership.

2.3 Transformational Leadership

Several leadership styles with their own unique characteristics and implications have widely been studied in the face-to-face context. However, research in fully understanding leadership dynamics across different contexts is still emerging, as most studies tend to focus solely on either face-to-face or virtual teams, but rarely addressing hybrid teams (Wilson et al., 2021). Leading a hybrid team can differ significantly from managing face-to-face or virtual groups. Notably, one leadership style that has demonstrated effectiveness in both face-to-face settings (Jensen et al., 2018) as well as virtual settings (Purvanova & Bono, 2009), is the transformational leadership theory, first introduced by Burns (1978). This leadership approach is particularly valued during periods of transformation (Abdul Sahid et al., 2023), making it well-suited for the hybrid work environment, which itself represents a significant shift in how teams operate. Therefore, this study focuses on transformational leadership within the context of hybrid work environments to better understand its impact on individual outcomes.

The transformational leadership theory was introduced by Burns (1978) as a collaborative process in which leaders and followers mutually elevate each other's ethical standards and motivational levels. Unlike transactional leadership, which focuses on the exchange of rewards for performance within an existing organizational culture, transformational leadership empowers followers to become leaders themselves and creates value by fundamentally changing the culture within a social system’s organisation (Burns, 1978). Building upon Burns' foundational work, Bass (1999) further developed and operationalized the concept of transformational leadership, claiming that transformational leadership goes beyond simple exchanges and agreements, elevating leadership to a process that fundamentally changes and inspires followers to exceed expectations. Transformational leadership is characterized by its profound impact on followers, manifesting through four key components: charisma, inspiration, intellectual stimulation and individualized consideration. (Bass & Avolio 1994; Bass, 1999)

There are several nuanced interpretations of transformational leadership that expand upon the foundational models of Burns and Bass. For instance, Avolio & Gardner (2005) build on the foundational ideas of Bass regarding transformational leadership but introduce the concept of authenticity as a critical dimension. They emphasize that authentic leaders possess self-awareness and inspire others through genuine relationships and interactions, rather than relying solely on charisma or personal appeal. In contrast, Yukl (1999) provided a more critical perspective, suggesting that while

transformational leadership inspires followers, it also carries a moral dimension, requiring leaders to consider the ethical implications of their actions.

However, Podsakoff et al. (1990) define transformational leadership as a multidimensional construct that encompasses six key behaviors such as *Identifying and Articulating a Vision, Providing an Appropriate Model, Fostering the Acceptance of Group Goals, High Performance Expectations, Providing Individualized Support* and *Intellectual Stimulation*. These dimensions will be explored in more detail below. This conceptualization differs from Bass's model by separating *Articulating a Vision* from *High Performance Expectations*, which Bass combines under *Inspirational Motivation.* It also adds *Providing an Appropriate Model* and *Fostering the Acceptance of Group Goals* as distinct dimensions not explicitly part of Bass's model. As this conceptualization synthesizes ideas from various transformational leadership theories, not just Bass's work, and captures a wider range of transformational behaviors identified in the literature, Podsakoffs et al.'s (1990) definition is adopted in this thesis.

The impact of transformational leadership has been widely studied and discussed on in-person work settings. Leadership research has generally found a positive association between a transformational leadership style, motivation and employees' experience of meaningful work (Bailey et al., 2019). Transformational leaders excel over transactional leaders in promoting empowerment, building group cohesion and boosting perceived group effectiveness in face-to-face environments (Jung & Sosik, 2002). Similarly, leaders demonstrating transformational leadership behaviors can also enhance the performance of virtual teams (Mysirlaki & Paraskeva, 2020). Essentially, when examining the impact of transformational and transactional leadership on virtual teams, focusing on how these styles were perceived by team members, findings indicate that a transformational leadership style was associated with higher levels of satisfaction compared to a transactional style, and transformational leaders were rated more favorably than their transactional counterparts (Ruggieri, 2009). Similarly, transformational leadership has a positive impact on employee engagement, knowledge sharing and the development of a trusting environment, as transformational leaders foster conditions that enable employees to find greater meaning in their work (Rafique et al., 2022).

Indeed, transformational leadership has been widely shown to positively impact other constructs, namely cohesiveness. For instance, transformational leadership boosts unit cohesion by enhancing motivation and commitment, strengthening interpersonal bonds and improving performance outcomes through increased unit potency (Bass et al., 2003). Similarly, transformational leadership has a significant positive effect on both self-efficacy and group cohesiveness in work teams (Pillai & Williams, 2004). Moreover, this leadership style is positively related to leader-member exchange quality, suggesting transformational leadership enhances followers' sense of connection to the leader (Wang et al., 2005) and social identification with the organizational unit (Kark et al., 2003). Based on

the extensive research on transformational leadership and its positive impacts on team dynamics, we can draw a connection to an individual's sense of belonging in the context of hybrid work environments. Synthesizing these findings, following hypothesis is developed:

H1: There is a positive relationship between transformational leadership behaviors and an individual's sense of belonging.

As conceptualized by Podsakoff et al. (1990), transformational leadership comprises six dimensions, with each of them addressing distinct aspects of transformational leadership and, consequently, being likely to impact an individual's sense of belonging in different ways and with varying intensities. The dimension of *Providing Individualized Support* directly addresses the personal needs and feelings of followers, which is critical for enhancing their sense of belonging. When leaders show genuine concern for their team members' well-being, individuals feel valued and understood, leading to stronger emotional ties to the leader and the organization (Wan et al., 2022). The intensity of this effect is likely to be high, as personalized support fosters trust and loyalty, essential components of belonging. With regards to *Identifying and Articulating a Vision:* When leaders clearly communicate a compelling vision, it can create a shared purpose among team members, fostering a sense of belonging as individuals feel they are part of something larger than themselves. Moreover, by *Fostering the Acceptance of Group Goals,* and thus promoting cooperation and collaboration towards common goals, leaders may enhance team cohesion, making individuals feel more connected to their peers and the organization, thus increasing their sense of belonging.

Furthermore, with regards to *Providing an Appropriate Model* for followers: Leaders who exemplify the values and behaviors they promote serve as role models, which can significantly enhance followers' identification with both the leader and the organization (Avolio et al., 2004). However, the impact of this dimension may vary based on the leader's credibility and the alignment of their actions with the organization's culture, but it generally fosters a strong sense of belonging.

Moreover, by encouraging *Intellectual Stimulation* and challenging followers to rethink their assumptions and engage in creative problem-solving, leaders can create an inclusive environment where diverse ideas are valued (Chen et al., 2020). This dimension can enhance belonging by promoting collaboration and open communication, allowing individuals to feel that their contributions matter. However, the impact may vary depending on the organizational culture, the degree to which individuals feel comfortable to share their ideas without fear of judgment and even the type of task or job. Some roles require more *Intellectual Stimulation* than others, and the effectiveness of this leadership dimension may depend on the nature of the work being performed (Díaz-Fúnez et al., 2021). For instance, in jobs that involve complex problem-solving or innovation, *Intellectual Stimulation* may have

a stronger positive effect on belonging, as it aligns with the core requirements of the role. Conversely, in more routine or standardized jobs, excessive *Intellectual Stimulation* might be less relevant or even potentially disruptive to established processes.

Lastly, setting *High Performance Expectations* can motivate individuals to strive for excellence, but if not balanced with adequate support, it may also create pressure and anxiety (England et al., 2019). This dimension may enhance belonging when individuals feel that their efforts are recognized and valued, fostering a culture of achievement. Contrarily, if the expectations lead to feelings of inadequacy or competition, the sense of belonging may diminish. Thus, the impact of this dimension can vary widely based on how expectations are communicated and supported.

All in all, building upon the analysis of the different dimensions and their potential associations with an individual's sense of belonging in varying intensities, the following hypothesis is proposed:

> *H2: The dimensions of Providing Individualized Support, Identifying and Articulating a Vision and Fostering the Acceptance of Group Goals are more strongly positively associated with an individual's sense of belonging than the other dimensions.*

In summary, while all six dimensions of transformational leadership may contribute to an individual's sense of belonging, the extent of their association can vary significantly. Dimensions that emphasize support and shared goals, such as *Providing Individualized Support* and *Fostering the Acceptance of Group Goals*, tend to have a more immediate and profound impact on belonging compared to those focused on performance expectations or intellectual challenges. This distinction is particularly relevant in hybrid work environments, where the nuances of communication can influence how these dimensions are perceived and enacted.

Furthermore, in hybrid settings, where physical proximity is often limited, the ability of leaders to cultivate a sense of closeness through effective communication becomes essential. Therefore, it is important to recognize that the effectiveness of transformational leadership in fostering belonging is closely linked to the quality of mediated communication. In this regard, electronic propinquity can play a crucial role in enhancing the relational dynamics among team members and between leaders and followers. Thus, understanding the interplay between transformational leadership and electronic propinquity is essential for comprehending how belonging can be fostered in hybrid work environments. As this relationship is further explored, it becomes evident that electronic propinquity may serve as a critical factor in leveraging transformational leadership to cultivate a strong sense of belonging among employees in hybrid work settings.

2.4 Electronic Propinquity

Electronic propinquity, a concept introduced by Korzenny (1978), refers to the psychological feeling of closeness that individuals experience during technology-mediated communication. This theory posits that the characteristics of communication media significantly influence the perception of nearness among communicators. Korzenny (1978) originally framed electronic propinquity as a general theory of mediated communication, suggesting that higher bandwidth and mutual directionality enhance feelings of closeness, while increased complexity of information and a greater number of available communication channels can diminish perceived propinquity (Korzenny, 1978).

Walther & Bazarova (2008) further extended the theory by examining electronic propinquity in the context of computer-mediated communication. Their research highlighted the impact of various communication media, such as face-to-face interactions, audio and text-based channels, on feelings of closeness among group members, indicating that the presence of alternative communication media and the complexity of information exchanged significantly influenced participants' perceptions of propinquity and overall satisfaction with their communication experiences. As their study confirmed Korzenny's original ideas and updated the theory for modern communication technologies, the conceptualization by Walther & Bazarova (2008) has been identified as the most appropriate for application within this study's context of hybrid environments.

Electronic propinquity, as a concept that explores the psychological feeling of closeness in technology-mediated communication, can be theoretically linked to the dimensions of virtuality proposed by Kirkman and Mathieu (2005). The synchronicity dimension, for instance, can influence electronic propinquity by affecting how team members perceive their interactions. Synchronous communication, such as videoconferencing, may enhance propinquity by providing real-time interactions that closely mimic face-to-face communication, thereby fostering a sense of immediacy and closeness among team members (Kirkman & Mathieu, 2005). Conversely, asynchronous communication, like email exchanges, may reduce propinquity due to the lack of immediate feedback and interaction, potentially leading to feelings of distance or disconnection. Additionally, the informational value dimension can impact propinquity by influencing the richness and depth of information exchanged. Tools with high informational value, such as videoconferencing, can enhance propinquity by providing nuanced and detailed information, while tools with low informational value may diminish it (Kirkman & Mathieu, 2005).

The concept of Team Perceived Virtuality (TPV) introduced by Handke et al. (2021) further enriches our understanding of electronic propinquity by emphasizing the subjective nature of virtuality. TPV highlights that virtuality extends beyond mere structural properties to encompass team members' perceptions of their shared experience, notably through the dimension of "feelings of distance". Just

as electronic propinquity reflects how the attributes of communication mediums shape interpersonal closeness, the affective dimension of TPV captures the collective emotional distance team members feel from one another, underscoring the importance of subjective perceptions in understanding virtual team dynamics (Handke et al., 2021). Therefore, both frameworks collectively highlight the need to consider not just structural factors, but also the nuanced perceptions that contribute to a team's virtuality, ultimately shaping their communication, interactions and overall effectiveness in hybrid environments.

Research on the outcomes of electronic propinquity remains relatively limited, which highlights a notable gap in the existing literature. However, one significant benefit of electronic propinquity is its enhancement of relationship quality as greater electronic propinquity is associated with increased trust, cohesion and social presence among team members (Walther & Bazarova, 2008). The concept of electronic propinquity indicates that even without physical proximity, individuals can still foster strong connections and a sense of community through online interactions. This can enhance feelings of belonging among users of online social networking sites, as they engage with others and build relationships that provide social support and recognition (Williams, 2019). Thus, as electronic propinquity facilitates the development and maintenance of relationships, it can be concluded that it is likely to contribute to an increased sense of belonging.

In the context of transformational leadership and hybrid work environments, research indicates that the influence of transformational leadership on communication and team performance decreases as team geographic dispersion increases (Eisenberg et al., 2019). This stems from, as dispersion increases, transformational leadership behaviors become less authentic and effective, due to reduced opportunities for face-to-face interactions and emotional contagion, difficulty in developing close leader-follower relationships at a distance and challenges in accurately assessing team situations and needs remotely. The same logic may apply to the construct of electronic propinquity and belonging, suggesting that the greater the perceived distance among colleagues, the weaker the impact of a transformational leader.

In the same vein, transformational leaders often rely on effective communication to inspire and motivate their followers (Podsakoff et al., 1990). When electronic propinquity is high, individuals may feel a greater sense of closeness and connection to their leaders and peers. They may also be more likely to engage with the leader's vision and goals, fostering a stronger sense of belonging within the group or organization. Furthermore, transformational leadership is characterized by the ability to build trust and provide support (Podsakoff et al., 1990). It can be assumed that when individuals perceive a sense of closeness with their leaders when engaging through electronic communication, they are more likely to trust them, which positively contributes to their sense of belonging. In summary, it can be

concluded that electronic propinquity may moderate the impact of transformational leadership on an individual's sense of belonging. Thus, the following hypothesis is proposed:

H3: Electronic propinquity moderates the relationship between transformational leadership and belonging, such that higher electronic propinquity strengthens the relationship between transformational leadership and an individual's sense of belonging.

To gain a more nuanced understanding of how electronic propinquity influences the relationship between transformational leadership and belonging, it is insightful to examine the distinct dimensions of transformational leadership individually. By doing so, we can explore whether the moderating effect of electronic propinquity extends consistently across each facet of transformational leadership or if certain dimensions are more strongly impacted than others. Therefore, the following hypotheses are proposed:

H3a: Electronic propinquity moderates the relationship between Identifying and Articulating a Vision and belonging, such that higher electronic propinquity strengthens the relationship between Identifying and Articulating a Vision and an individual's sense of belonging.

H3b: Electronic propinquity moderates the relationship between Providing an Appropriate Model and belonging, such that higher electronic propinquity strengthens the relationship between Providing an Appropriate Model and an individual's sense of belonging.

H3c: Electronic propinquity moderates the relationship between Fostering the Acceptance of Group Goals and belonging, such that higher electronic propinquity strengthens the relationship between Fostering the Acceptance of Group Goals and an individual's sense of belonging.

H3d: Electronic propinquity moderates the relationship between High Performance Expectations and belonging, such that higher electronic propinquity strengthens the relationship between High Performance Expectations and an individual's sense of belonging.

H3e: Electronic propinquity moderates the relationship between Providing Individualized Support and belonging, such that higher electronic propinquity strengthens the relationship between Providing Individualized Support and an individual's sense of belonging.

H3f: Electronic propinquity moderates the relationship between Intellectual Stimulation and belonging, such that higher electronic propinquity strengthens the relationship between Intellectual Stimulation and an individual's sense of belonging.

2.5 Conceptual Model

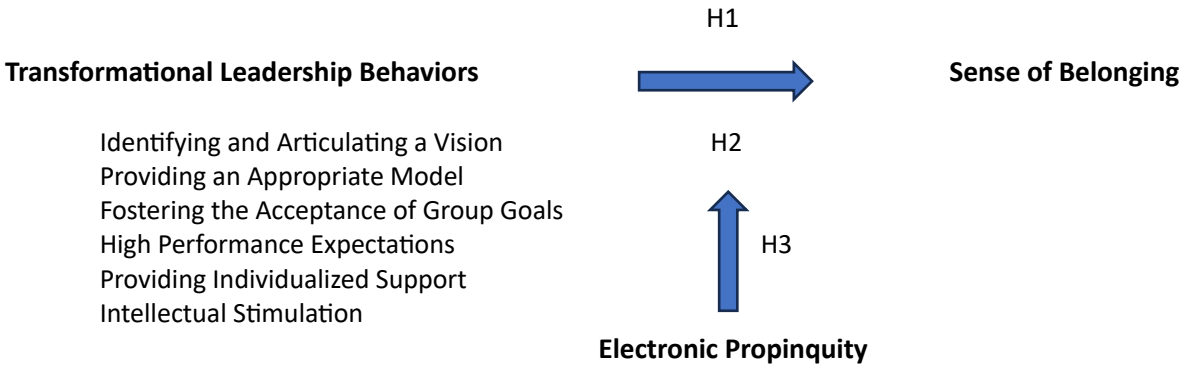


Figure 2.1: *Graphic Representation of the Research Model*

The core of this research lies in understanding the complex relationships between transformational leadership, an individual's sense of belonging and electronic propinquity within hybrid work environments. The proposed conceptual model (illustrated in Figure 2.1) positions transformational leadership behaviors as the independent variable, influencing an individual's sense of belonging, which serves as the dependent variable. The model also incorporates electronic propinquity as a moderating variable, suggesting that the strength and nature of the relationship between transformational leadership and belonging are contingent upon the level of electronic propinquity experienced by individuals in the hybrid work setting.

Specifically, this research proposes a positive relationship between transformational leadership behaviors and an individual's sense of belonging (H1). Furthermore, it suggests that the dimensions of *Providing Individualized Support, Identifying and Articulating a Vision* and *Fostering the Acceptance of Group Goals* are more strongly positively associated with an individual's sense of belonging than the other dimensions (H2). Finally, the model posits that electronic propinquity moderates the relationship between transformational leadership and belonging, such that higher electronic propinquity strengthens this relationship (H3). The hybrid work environment provides the context for these interactions. By investigating these relationships, this study seeks to provide actionable insights that can help leaders and organizations design more inclusive and supportive work environments.

3 Methodology

This chapter outlines the methodological approach employed in this study to investigate the relationships between transformational leadership, sense of belonging and electronic propinquity in hybrid work environments. The methodology is designed to address the research questions and test the hypotheses presented in the previous chapter. This section is divided into three main parts: Sample and participants, procedure and variable measures. First, the sampling strategy and participant characteristics are described, detailing the target population and inclusion criteria. Next, the procedure section explains the research design, data collection method and survey administration process. Finally, the variable measures section provides a comprehensive overview of the scales used to operationalize the key constructs in this study. Together, these components form a robust methodological framework that ensures the reliability and validity of the research findings.

3.1 Sample and Participants

The framework of this study is conceptualized by hybrid work environments, referring to work arrangements where team members operate from diverse locations, combining both face-to-face and virtual interactions (Ekelman & Kantor, 2023). Thus, the target population in this study are employees working in hybrid environments. Hybrid teams are characterized by their members' capacity to work from different locations with varying degrees of virtuality (Foster et al., 2015). In this research, for the sake of clarity and simplicity, a distinction between varying levels of virtuality is not made. Instead, hybrid work environments are conceptualized as a unified framework, encompassing all individuals working in such settings as the broader target population.

Thus, participants were recruited based on specific inclusion criteria to ensure the relevance and consistency of the sample. These criteria include: current employment in a hybrid work arrangement, which combines remote and in-office work; active employment status; and working as part of a team with a designated leader. These criteria are designed to capture individuals who are actively experiencing the dynamics of hybrid work environments and are part of a team structure, which is essential for examining the effects of transformational leadership in this context.

As an exclusion criteria, are employees in leadership positions themselves, in order to focus on individual contributors' experiences. The methodology employs a non-probabilistic sampling approach, meaning that not all members of the target population (hybrid workers) have an equal chance of being selected, as the selection is not based on random procedures. More specifically, a combination of two sampling methods are combined: Self-selection sampling and Convenience (Haphazard) sampling. Self-selection sampling because the participants express their desire to take part in the research process by

voluntarily responding to recruitment notices posted on professional networking sites like LinkedIn. Convenience sampling because individuals that are easiest to access are selected through using the network of previous work experience and online survey panels that provide access to hybrid workers who meet the inclusion criteria.

The final sample consisted of 189 participants working in hybrid work environments. The mean age of the participants was 32.5 years (*SD* = 10.60), with ages ranging from 20 to 64 years. Participants had been working in their current organization for an average of 4.32 years (*SD* = 6.77) and in their current team for an average of 2.56 years (*SD* = 4.11). Participants reported spending an average of 2.45 days per week in the office (*SD* = 1.11) and 2.31 days per week working remotely (*SD* = 1.06).

Regarding gender distribution, 52.4% of participants identified as female (*n* = 99), 47.1% as male (*n* = 89), and 0.5% preferred not to disclose their gender (*n* = 1). The majority of participants were German (68.8%, *n* = 130) and resided in Germany (72%, *n* = 136). Other nationalities included Central Europe (2.6%, *n* = 5), Northern Europe (3.2%, *n* = 6), Southern Europe (4.8%, *n* = 9), Western Europe (5.3%, n = 10), South Asia (4.2%, *n* = 8), and North America (3.2%, *n* = 6), among others.

In terms of education, most participants held a Bachelor's degree (40.2%, *n* = 76) or a Master's degree (37%, *n* = 70). A smaller proportion reported completing High school or equivalent (6.3%, *n* = 12), vocational training (6.3%, *n* = 12) or having a Doctorate/PhD (2.1%, *n* = 4). Employment status revealed that 67.7% of the participants were employed full-time or part-time (*n* = 128), while others were students, including working students, (23.8%, *n* = 45) or self-employed (4.2%, *n* = 8).

Participants represented a wide range of industry sectors. The most frequently reported sectors included Consulting and Professional Services (17.5%, *n* = 33), Technology and Software (15.9%, *n* = 30), and Advertising, Media and Marketing (14.3%, *n* = 27). Other notable sectors included Automotive, Engineering and Manufacturing (7.9%, *n* = 15), Finance and Banking (7.4%, *n* = 14), and Education and Research (6.3%, *n* = 12). A total of 13.2% (*n* = 25) selected "Other" as their industry sector, specifying diverse fields such as Logistics, Politics, Security and Medical Technology.

Participants held diverse roles within their organizations, with 27% (*n* = 51) identifying as mid-level professionals, 21.2% (*n* = 40) as senior-level professionals, and 21.2% (*n* = 40) as interns or working students. Entry-level roles accounted for 12.7% (*n* = 24), management roles for 10.1% (*n* = 19), while executive/C-suite positions represented 4.2% (*n* = 8).

Finally, most participants described their current work arrangement as hybrid (partly in-office, partly remote) (73%, *n* = 138), however, all participants were assumed to work in hybrid arrangements combining remote and in-office work based on the recruitment criteria for this study.

3.2 Procedure

This study employed a quantitative, correlational research design. This approach was chosen based on previous knowledge from the literature and allows for the analysis of a restricted number of variables using a deductive approach. Data was collected via an online survey administered through the survey platform Qualtrics. The survey was available in both English and German to accommodate a broader participant pool and ensure accessibility for participants from different linguistic backgrounds. All survey materials, including the consent form, scales and demographic questions, were accurately translated to maintain measurement equivalence across both language versions.

Potential participants were sent an invitation with information about the study and a link to the survey. The survey took approximately 10-15 minutes to complete and began with a Consent Declaration to ensure the anonymity and confidentiality of the participants' responses. The main body of the survey consisted of questions measuring the three key variables: transformational leadership, belonging and electronic propinquity, using their respective scales.

The survey concluded with a comprehensive demographic section designed to provide more contextualization and to ensure participants meet the inclusion criteria. This section collected information on participants' hybrid work arrangements, including the average number of days spent working in the office versus remotely per week. Additionally, an office/remote-ratio was calculated using this data, providing a consistent indicator of each participant's hybrid work arrangement. This data serves as a crucial control variable, allowing the study to account for potential effects of different hybrid work configurations on the relationships between the main variables of interest.

Furthermore, the demographic section gathered additional information such as age, gender, nationality, country of residence, industry sector, organizational tenure, team tenure and job level. These variables are used as control variables in the analysis to account for potential confounding factors that might influence the relationships under study. By incorporating these controls, the research aims to isolate the effects of transformational leadership, belonging and electronic propinquity in hybrid work environments more effectively.

3.3 Variable Measures

Transformational leadership behaviors were measured using a widely recognized and validated scale developed by Podsakoff et al. (1990). This 23-item scale assesses six dimensions of transformational leadership: *Identifying and Articulating a Vision, Providing an Appropriate Model, Fostering the Acceptance of Group Goals, High Performance Expectations, Providing Individualized Support* and *Intellectual Stimulation*. Sample items include "Has a clear understanding of where we are going" and

"Provides a good model for me to follow". Participants responded on a 7-point Likert scale from 1 (strongly disagree) to 7 (strongly agree). This conceptualization differs from Bass's (1999) model by separating *Identifying and Articulating a Vision* from *High Performance Expectations*, which Bass combines under *Inspirational Motivation.* It also adds *Providing an Appropriate Model* and *Fostering Acceptance of Group Goals* as distinct dimensions not explicitly part of Bass's model. As this conceptualization synthesizes ideas from various transformational leadership theories, not just Bass's work, and captures a wider range of transformational behaviors identified in the literature, Podsakoffs et al.'s (1990) scale was adopted in this thesis.

The reliability of the transformational leadership scale was assessed using Cronbach's alpha to evaluate internal consistency. The overall scale, comprising 23 items, demonstrated excellent reliability with a Cronbach's alpha of 0.931. Reliability was also examined for each of the six dimensions of transformational leadership. The *Identifying and Articulating a Vision* dimension (5 items) had a Cronbach's alpha of 0.908, while *Providing an Appropriate Model* (3 items) yielded an alpha of 0.901. The *Fostering the Acceptance of Group Goals* dimension (4 items) showed an alpha of 0.914 and *High Performance Expectations* (3 items) had an alpha of 0.860. The *Providing Individualized Support* dimension (4 items) demonstrated an alpha of 0.858 and *Intellectual Stimulation* (4 items) had an alpha of 0.869. These results indicate high internal consistency for the overall scale and its individual dimensions, supporting their reliability for measuring transformational leadership behaviors in this study.

Belonging was measured using the work group inclusion scale developed by Chung et al. (2019). This scale is grounded in the theoretical framework of optimal distinctiveness theory, which posits that individuals have dual needs for belongingness and uniqueness, meaning that individuals seek to balance their need for inclusion with their desire for individuality (Brewer, 1991). This balance is crucial in hybrid work environments, where employees may struggle to maintain their unique identities while also feeling connected to their teams. Thus, the choice of Chung et al.'s (2019) definition is particularly relevant for the study's research purpose, as it directly addresses the dynamics of belonging in work environments, especially in the context of hybrid work settings.

The scale consists of two subscales: one that measures belongingness and another that assesses uniqueness. Each subscale comprises five items, resulting in a total of ten items that are designed to capture the extent to which employees feel valued, accepted and connected to their colleagues, as well as their sense of individuality within the group context. For example, items may include statements such as "I feel like a valued member of my work group" and "I can express my unique ideas without fear of judgment". Again, participants responded on a 7-point Likert-type scale, ranging from 1 (strongly disagree) to 7 (strongly agree).

The overall belonging scale, consisting of 10 items, demonstrated excellent reliability with a Cronbach's alpha of 0.932. The belonging subscale, comprising 5 items, showed a Cronbach's alpha of 0.922, indicating high internal consistency. Similarly, the uniqueness subscale, also consisting of 5 items, yielded a Cronbach's alpha of 0.878, reflecting strong reliability. These results confirm that the scale and its subscales are reliable measures for assessing employees' sense of belonging and individuality within work groups, making it suitable for the context of this study.

Electronic propinquity was assessed using an adapted version of the scale developed by Walther and Bazarova (2008). The original scale consisted of five 7-point semantic differential items. For this study, we modified the scale to use 5-point sliders, allowing for more nuanced responses. The scale included the following pairs of opposing descriptors:

1. Distant (1) - Nearby (5)
2. Close (1) - Far (5)
3. Together (1) - Separate (5)
4. Proximal (1) - Remote (5)
5. Disconnected (1) - Connected (5)

Participants rated their feelings of closeness by sliding the marker along the scale for each item, allowing for nuanced responses and providing a comprehensive measure of the participants' perceived nearness in the context of electronic communication. The use of this scale was intended to capture the subjective experience of closeness, which is central to the concept of electronic propinquity. By employing a slider format, we aimed to enhance the sensitivity of the measurement, enabling participants to express varying degrees of closeness in their mediated interactions.

To ensure the reliability of the electronic propinquity scale and align it with the hypothesis, three items (2, 3 and 4) were reversely recoded so that higher scores consistently reflected greater propinquity or closeness. After recoding, the scale confirmed acceptable reliability with a Cronbach's alpha of 0.762, which indicates a good level of internal consistency for measuring perceived nearness in electronic communication.

4 Obtained Results, Findings and Discussion

This section presents and interprets the empirical results of the study, offering a detailed analysis of how transformational leadership (TL) behaviors, belonging and electronic propinquity (EP) interact within hybrid work environments. The following subsections systematically outline the research findings, beginning with descriptive and inferential statistics, followed by an in-depth discussion of the

results in relation to the study's hypotheses. Practical implications for leadership and team dynamics are then explored, and finally, the section addresses limitations and proposes avenues for future research. Together, these components provide a comprehensive understanding of the study's contributions and their relevance for both theory and practice.

4.1 Research Findings

This section presents the key findings of the study, organized into four main parts. First, the correlation matrix (4.1.1) provides an overview of the relationships between TL dimensions, belonging (total and subscales) and demographic variables, offering initial insights into significant associations. Next, the linear regression analysis (4.1.2) tests hypothesis 1, examining whether TL behaviors predict an individual's sense of belonging while controlling for demographic factors. Following this, the multiple regression analysis (4.1.3) explores hypothesis 2, assessing which specific TL dimensions are more strongly associated with belonging and its subscales. Lastly, the moderation analysis (4.1.4) investigates hypothesis 3, testing whether EP moderates the relationship between TL and belonging across all scales, including belonging total, the belonging subscale and uniqueness subscale. Together, these analyses provide a comprehensive understanding of how TL behaviors influence belonging and how EP might shape these relationships.

4.1.1 Correlation Matrix

As shown in Table 4.1, the correlation matrix provides a first overview of the relationships between the TL dimensions, belonging (total and subscales) and various demographic variables. Overall, belonging total and its subscales show significant positive correlations with most TL dimensions. For example, *Identifying and Articulating a Vision* (r = .46, p < .01), *Providing an Appropriate Model* (r = .36, p < .01), and *Fostering the Acceptance of Group Goals* (r = .49, p < .01) are all positively associated with belonging. These findings align with expectations, suggesting that TL behaviors contribute to employees' sense of belonging. However, some TL dimensions, such as *High Performance Expectations* (r = −.03) and *Intellectual Stimulation* (r = .09), show weaker or non-significant correlations with the belonging subscale, while *Intellectual Stimulation* remains significantly correlated with the uniqueness subscale (r = .21, p < .01).

Moreover, EP is significantly positively correlated with both TL behaviors and belonging: It shows moderate positive correlations with overall TL (r = .20, p < .01) and specific dimensions like *Identifying and Articulating a Vision* (r = .28, p < .01) and *Providing an Appropriate Model* (r = .15, p < .01). Similarly,

EP is strongly correlated with belonging total (r = .51, p < .01) and its subscales (belonging, r = .53, p < .01; uniqueness, r = .40, p < .01).

Furthermore, the office-remote ratio is significantly negatively correlated with *Intellectual Stimulation* (r = −.25, p < .01), which suggests that perceptions of *Intellectual Stimulation* may vary depending on the work environment.

Regarding the demographic variables, age is significantly negatively correlated with overall TL behaviors (r = −.16, p < .05) and specific dimensions such as *Providing Individualized Support* (r = −.21, p < .01) and *Intellectual Stimulation* (r = −.19, p < .01). This indicates that older employees perceive their leaders as less transformational. The current role within the organization shows significant negative correlations with overall TL behaviors (r = −.17, p < .05) and dimensions like *Fostering the Acceptance of Group Goals* (r = −.15, p < .05) and *Intellectual Stimulation* (r = −.21, p < .01). This suggests that individuals in higher roles may experience fewer TL behaviors from their leaders. Finally, organizational and team tenure are both positively correlated with age (organizational tenure: r = .64, p < .01; team tenure (r = .55, p < .01), which reflects expected patterns of longer experience being associated with older employees.

Table 4.1

Correlations for Study Variables

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1. Transformational Leadership	4.87	.98	-																						
2. Identifying and Articulating a Vision	5.04	1.28	.88**	-																					
3. Providing an Appropriate Model	4.68	1.54	.84**	.70**	-																				
4. Fostering Acceptance of Group Goals	5.1	1.32	.86**	.78**	.68**	-																			
5. High Performance Expectations	4.59	1.38	.30**	.14	.10	.11	-																		
6. Providing Individualized Support	5.12	1.36	.68**	.57**	.61**	.62**	-.26**	-																	
7. Intellectual Stimulation	4.56	1.27	.69**	.46**	.50**	.42**	.41**	.25**	-																
8. Belonging total	5.6	.98	.44**	.46**	.36**	.49**	-.01	.37**	.15*	-															
9. Belonging	5.56	1.17	.40**	.43**	.33**	.50**	-.03	.39**	.09	.94**	-														
10. Uniqueness	5.64	.94	.41**	.43**	.34**	.40**	.01	.33**	.21**	.91**	.73**	-													
11. Electronic Propinquity	3.39	.74	.20**	.28**	.15*	.39**	-.15*	.24**	-.13	.51**	.53**	.40**	-												
12. Age	32.5	10.6	-.16*	-.09	-.17*	-.10	.06	-.21**	-.19**	-.02	-.02	-.02	.10	-											
13. Organizational Tenure	4.32	6.77	-.12	-.07	-.13	-.06	.04	-.10	-.19*	.04	.04	.03	.05	.64**	-										
14. Team Tenure	2.56	4.11	-.07	.03	-.10	.00	-.01	-.05	-.18*	.10	.10	.08	.14	.55**	.74**	-									
15. Office days if hybrid	2.45	1.11	-.08	.01	-.07	-.06	.11	-.13	-.20*	-.03	-.01	-.05	.17	.09	.05	.11	-								
16. Remote days if hybrid	2.31	1.06	.06	-.04	.01	.00	-.01	.06	.23**	-.02	-.05	.01	-.16	-.03	-.02	-.07	-.73**	-							
17. Office/Remote Ratio			-.12	-.04	-.05	-.07	.05	-.14	-.25**	-.07	-.04	-.09	.11	.09	.02	.08	.84**	-.80**	-						
18. Gender			.05	.02	-.04	.10	.04	.08	.09	.02	.07	-.06	.07							-					
19. Highest level of Education			.12	.06	.10	.13	-.02	.12	.13	-.03	-.08	.05	-.02							.10	-				
20. Current employment status			.04	-.01	.04	.01	-.06	.01	.10	-.01	.04	-.04	-.13							.12	-.18*	-			
21. Industry			-.14	-.10	-.15*	-.14	.06	-.12	-.15*	-.03	.01	-.06	-.03							.19**	-.15*	.09	-		
22. Current Role			-.17*	-.05	-.12	-.15*	-.04	-.13	-.21**	.05	.02	.06	.06							-.14	.09	-.37**	.04	-	
23. Current work arrangement			.00	.02	-.09	.04	-.04	.02	-.01	.02	-.03	.05	.08							.15*	.01	.04	.13	.05	-

Note. *p < .05. **p < .01.

4.1.2 Hypothesis 1

A linear regression analysis was conducted to test H1, which proposed that TL behaviors positively predict belonging, while controlling for demographic variables such as age, gender, education level and current role within the organization (see Table 4.2). In Model 1, TL significantly predicted belonging, R^2 = .193, $F(1, 186) = 44.541$, $p < .001$, accounting for approximately 19.3% of the variance in belonging (β = .440, $t(186) = 6.674$, $p < .001$). In Model 2, demographic variables (age, gender, education level, and current role) were added to the model as control variables. While the inclusion of these variables explained an additional, though small, amount of variance (ΔR^2 = .025), the change was not substantial and the overall model remained significant (R^2 = .218, $F(5,182) = 10.154$, $p < .001$). Among the predictors in Model 2, TL continued to be a strong and significant predictor of belonging (β = .476, $t(182) = 7.040$, $p < .001$). None of the demographic variables (age, gender, education level or current role) were significant predictors ($p > .05$). These findings support H1, demonstrating that TL behaviors have a strong positive relationship with an individual's sense of belonging, independent of demographic factors.

Table 4.2

Linear Regression for Belonging total

Model		B	SE	β	t	*p*
1	TL	.441	.066	.440	6.674	<.001
2	TL	.477	.068	.476	7.040	<.001
	Age	-.001	.007	-.008	-.110	.913
	Gender	-.078	.124	-.042	-.629	.530
	Education Level	-.079	.053	-.100	-1.483	.140
	Current Role	.075	.047	.120	1.581	.116

Note. Dependent Variable: Belonging total

To further explore the relationship between TL behaviors and belonging, linear regression analyses were conducted separately for the two subscales of belonging: Belonging and uniqueness. The results for these subscales were consistent with the findings for the total belonging scale. For the belonging subscale (see Table 4.3), TL significantly predicted belonging in Model 1 (R^2 = .167, $F(1, 186) = 37.250$, $p < .001$), accounting for approximately 16.7% of the variance (β = .408, $t(186) = 6.103$, $p < .001$). In Model 2, after controlling for the demographic variables, the model explained an additional but small amount of variance (ΔR^2 = .026), with the overall model remaining significant (R^2 = .193, $F(5, 182) = 8.709$, $p < .001$). TL remained a significant predictor in Model 2 (β = .445, $t(182) = 6.478$, $p < .001$), while

none of the demographic variables were significant predictors ($p > .05$), although education level is marginally significant with a p value of .058.

Table 4.3

Linear Regression for Belonging subscale

Model		B	SE	*β*	t	*p*
1	TL	.487	.080	.408	6.103	<.001
2	TL	.530	.082	.445	6.478	<.001
	Age	-.001	.008	-.010	-.130	.896
	Gender	-.012	.150	-.006	-.083	.934
	Education Level	-.122	.064	-.131	-1.905	.058
	Current Role	.084	.057	.114	1.474	.142

Note. Dependent Variable: Belonging subscale

For the uniqueness subscale (see Table 4.4), TL also significantly predicted uniqueness in Model 1 ($R^2 = .168$, $F(1, 186) = 37.566$, $p < .001$), accounting for approximately 16.8% of the variance ($\beta = .410$, $t(186) = 6.129$, $p < .001$). In Model 2, after adding demographic variables as controls, the model explained an additional but small amount of variance ($\Delta R^2 = .022$), with the overall model remaining significant ($R^2 = .190$, $F(5, 182) = 8.522$, $p < .001$). TL continued to be a significant predictor in Model 2 ($\beta = .440$, $t(182) = 6.402$, $p < .001$), while none of the demographic variables were significant predictors ($p > .05$).

Table 4.4

Linear Regression for Uniqueness

Model		B	SE	*β*	t	*p*
1	TL	.396	.065	.410	6.129	<.001
2	TL	.425	.066	.440	6.402	<.001
	Age	.000	.007	-.005	-.063	.950
	Gender	-.143	.121	-.081	-1.182	.239
	Education Level	-.036	.052	-.047	-.683	.496
	Current Role	.066	.046	.109	1.415	.159

Note. Dependent Variable: Uniqueness

All in all, the results for both subscales align with the findings from the total belonging scale. TL behaviors consistently emerged as a strong positive predictor of employees' sense of belonging and its subscales, even when controlling for demographic variables. These findings provide robust evidence supporting H1, which proposed that TL is positively associated with an individual's sense of belonging.

4.1.3 Hypothesis 2

To test hypothesis 2, which proposed that the dimensions of *Providing Individualized Support*, *Identifying and Articulating a Vision* and *Fostering the Acceptance of Group Goals* are more strongly positively associated with belonging than the other dimensions of TL, a multiple regression analysis was conducted (see Table 4.5). The dependent variable was belonging total and the independent variables were the six dimensions of TL. In Model 2, control variables (age, gender, education level and role) were added to assess their impact on the relationships.

In Model 1, which included only the six TL dimensions as predictors: *Identifying and Articulating a Vision* (B = 0.175, β = .228, t = 2.065, p = .040) and *Fostering the Acceptance of Group Goals* (B = 0.236, β = .319, t = 2.856, p = .005) emerged as significant positive predictors of belonging. As predicted in H2, all three hypothesized dimensions (*Providing Individualized Support*, *Identifying and Articulating a Vision* and *Fostering the Acceptance of Group Goals*) had positive coefficients, although *Providing Individualized Support* (B = 0.044, β = .062, t = 0.635, p = .527) was not statistically significant. The remaining three dimensions (*Providing an Appropriate Model, High Performance Expectations and Intellectual Stimulation*) showed negative coefficients and were not significant predictors.

These results partially support H2, as two of the three hypothesized dimensions (*Identifying and Articulating a Vision* and *Fostering the Acceptance of Group Goals*) were positively associated with belonging, with *Fostering the Acceptance of Group Goals* showing the strongest relationship (β = .319). The other three dimensions had negative signs, further reinforcing the idea that the hypothesized dimensions have a stronger impact on belonging.

In Model 2, demographic control variables (age, gender, education level and role) were added to the regression model: *Fostering the Acceptance of Group Goals* remained a significant positive predictor (B = 0.281, β = .379, t = 3.324, p = .001), confirming its strong association with belonging even after accounting for controls. However, *Identifying and Articulating a Vision* (B = 0.133, β = .174, t = 1.550, p = .123) lost significance in Model 2 when control variables were introduced. Among the control variables, education level emerged as marginally significant (B = −0.092, β = −.116, t = −1.758, p = .080), indicating a slight negative relationship with belonging.

Overall, H2 is partially supported: while all three hypothesized dimensions had positive relationships with belonging as predicted, only two (*Identifying and Articulating a Vision* and *Fostering the Acceptance of Group Goals*) were significant in Model 1, with *Fostering the Acceptance Group Goals* remaining significant after controlling for demographic factors in Model 2. This indicates that TL behaviors related to *Fostering the Acceptance of Group Goals* are particularly important for enhancing employees' sense of belonging within organizations.

Table 4.5

Multiple Regression for Belonging total

Model		B	SE	*β*	t	*p*
1	Identifying and Articulating a Vision	.175	.085	.228	2.065	.040
	Providing an Appropriate Model	-.007	.065	-.011	-.104	.917
	Fostering the Acceptance of Group Goals	.236	.083	.319	2.856	.005
	High Performance Expectations	-.015	.055	-.021	-.273	.785
	Providing Individualized Support	.044	.070	.062	.635	.527
	Intellectual Stimulation	-.070	.064	-.090	-1.109	.269
2	Identifying and Articulating a Vision	.133	.086	.174	1.550	.123
	Providing an Appropriate Model	-.010	.066	-.016	-.157	.875
	Fostering the Acceptance of Group Goals	.281	.084	.379	3.324	.001
	High Performance Expectations	-.014	.055	-.020	-.259	.796
	Providing Individualized Support	.062	.070	.086	.878	.381
	Intellectual Stimulation	-.049	.065	-.063	-.763	.447
	Age	-.003	.007	-.029	-.386	.700
	Gender	-.104	.121	-.056	-.857	.392
	Education Level	-.092	.052	-.116	-1.758	.080
	Current Role	.070	.047	.112	1.504	.134

Note. Dependent Variable: Belonging total

To further explore hypothesis 2, a multiple regression analysis was conducted with the belonging subscale as the dependent variable, while the independent variables remained the six dimensions of TL (see Table 4.6). The control variables were again added in Model 2 to assess their impact on the relationships. In Model 1, which included only the six TL dimensions as predictors: *Fostering the Acceptance of Group Goals* emerged as a significant positive predictor ($B = 0.385$, $\beta = .438$, $t = 3.958$, $p < .001$), confirming its strong association with belonging. *Intellectual Stimulation* showed a marginally significant negative relationship with belonging ($B = -0.147$, $\beta = -.159$, $t = -1.966$, $p = .051$). The other four dimensions (*Identifying and Articulating a Vision, Providing an Appropriate Model, High Performance Expectations* and *Providing Individualized Support*) were not significant predictors and had either positive or negative coefficients. These results suggest that *Fostering the Acceptance of Group Goals* is the strongest predictor of belonging among the TL dimensions, while *Intellectual Stimulation* shows a weak but negative association.

In Model 2, demographic control variables (age, gender, education level and role) were again added to the regression model: *Fostering the Acceptance of Group Goals* remained a significant positive predictor ($B = 0.440$, $\beta = .500$, $t = 4.444$, $p < .001$), further strengthening its role as the most important dimension for belonging. *Intellectual Stimulation* continued to show a marginally significant negative relationship with belonging ($B = -0.126$, $\beta = -.137$, $t = -1.665$, $p = .098$). Among the control variables, education level emerged as significant ($B = -0.146$, $\beta = -.155$, $t = -2.381$, $p = .018$), indicating that higher

education levels are associated with slightly lower perceptions of belonging. The inclusion of control variables did not change the significance or direction of the relationships for *Fostering the Acceptance Group Goals* or *Intellectual Stimulation*. However, education level appears to play a role in moderating perceptions of belonging.

Table 4.6

Multiple Regression for Belonging subscale

Model		B	SE	*β*	t	*p*
1	Identifying and Articulating a Vision	.142	.100	.157	1.428	.155
	Providing an Appropriate Model	-.015	.077	-.020	-.195	.846
	Fostering the Acceptance of Group Goals	.385	.097	.438	3.958	<.001
	High Performance Expectations	-.014	.065	-.016	-.211	.833
	Providing Individualized Support	.031	.082	.036	.372	.710
	Intellectual Stimulation	-.147	.075	-.159	-1.966	.051
2	Identifying and Articulating a Vision	.091	.101	.100	.901	.369
	Providing an Appropriate Model	-.014	.077	-.018	-.179	.858
	Fostering the Acceptance of Group Goals	.440	.099	.500	4.444	<.001
	High Performance Expectations	-.014	.065	-.016	-.208	.835
	Providing Individualized Support	.049	.082	.057	.595	.552
	Intellectual Stimulation	-.126	.076	-.137	-1.665	.098
	Age	-.005	.008	-.044	-.603	.547
	Gender	-.055	.142	-.025	-.387	.699
	Education Level	-.146	.061	-.155	-2.381	.018
	Current Role	.083	.055	.112	1.522	.130

Note. Dependent Variable: Belonging subscale

Moreover, a multiple regression analysis was conducted for the uniqueness subscale as the dependent variable, while the independent variables remained the six dimensions of TL (see Table 4.7). Again, control variables were added in Model 2 to assess their impact on the model. In Model 1, which included only the six TL dimensions as predictors: *Identifying and Articulating a Vision* emerged as a significant positive predictor ($B = 0.207$, $\beta = .282$, $t = 2.438$, $p = .016$), indicating that this dimension has a meaningful association with uniqueness. The remaining five dimensions (*Providing an Appropriate Model, Fostering Acceptance of Group Goals, High Performance Expectations, Providing Individualized Support* and *Intellectual Stimulation*) were not significant predictors. Among these, *High Performance Expectations* showed a negative coefficient ($B = -0.017$, $\beta = -.024$), while others had positive coefficients but failed to reach significance. These results suggest that *Identifying and Articulating a Vision* is particularly relevant for fostering uniqueness within workgroups. Unlike previous analyses for total belonging and the belonging subscale, only one dimension emerged as significant in this model.

In Model 2, demographic control variables (age, gender, education level and role) were added to the regression model: *Identifying and Articulating a Vision* remained significant (*B* = 0.175, *β* = .239, *t* = 2.023, *p* = .045), reinforcing its importance for uniqueness. None of the other TL dimensions reached significance in this model. Among the control variables, none were significant predictors of uniqueness (e.g., education level, *B* = −0.038, *β* = −.050, *t* = −0.718, *p* = .474). The inclusion of control variables did not substantially alter the relationships observed in Model 1. However, it is noteworthy that *Identifying and Articulating a Vision* remained significant even after accounting for demographic factors.

Table 4.7

Multiple Regression for Uniqueness

Model		B	SE	*β*	t	*p*
1	Identifying and Articulating a Vision	.207	.085	.282	2.438	.016
	Providing an Appropriate Model	.001	.066	.002	.021	.983
	Fostering the Acceptance of Group Goals	.087	.083	.122	1.047	.296
	High Performance Expectations	-.017	.056	-.024	-.296	.767
	Providing Individualized Support	.058	.070	.084	.827	.409
	Intellectual Stimulation	.006	.064	.008	.096	.923
2	Identifying and Articulating a Vision	.175	.087	.239	2.023	.045
	Providing an Appropriate Model	-.007	.066	-.011	-.103	.918
	Fostering the Acceptance of Group Goals	.121	.085	.170	1.423	.157
	High Performance Expectations	-.015	.056	-.022	-.271	.787
	Providing Individualized Support	.074	.071	.107	1.047	.297
	Intellectual Stimulation	.028	.065	.037	.422	.673
	Age	.000	.007	-.005	-.064	.949
	Gender	-.153	.123	-.086	-1.248	.214
	Education Level	-.038	.053	-.050	-.718	.474
	Current Role	.057	.047	.095	1.210	.228

Note. Dependent Variable: Uniqueness

In summary, while H2 is partially supported across all analyses, *Fostering the Acceptance of Group Goals* consistently emerged as the strongest predictor for belonging (total and subscale), whereas *Identifying and Articulating a Vision* was particularly relevant for uniqueness. These findings highlight how TL dimensions interact differently depending on whether the focus is on group cohesion (belonging) or individual expression (uniqueness).

4.1.4 Hypothesis 3

To test hypothesis 3, which proposed that EP moderates the relationship between TL and belonging such that higher EP strengthens this relationship, a moderation analysis was conducted using the

PROCESS macro (Preacher & Hayes, 2004) in SPSS, using model 1. The results for the total belonging scale and its subscales are presented in Table 4.8. For the belonging total scale, the moderation analysis revealed a significant negative interaction effect between TL total and EP (*B* = −0.214, *SE* = 0.073, *t* = −2.943, *p* = .004, 95% *CI* [−0.358, −0.071]). This indicates that higher levels of EP actually weaken the positive relationship between TL and belonging. Furthermore, when examining specific dimensions of TL, *Identifying and Articulating a Vision* showed a significant negative moderation effect (*B* = −0.149, *SE* = 0.051, *t* = −2.935, *p* = .004, 95% *CI* [−0.250, −0.049]), *Providing an Appropriate Model* also exhibited a significant negative moderation (B = −0.214, SE = 0.050, *t* = −4.258, *p* < .001, 95% *CI* [−0.313, −0.115]), *Fostering the Acceptance of Group Goals* demonstrated a negative moderation effect (*B* = −0.171, *SE* = 0.050, *t* = −3.394, *p* < .001, 95% *CI* [−0.270, −0.071]) and *Providing Individualized Support* showed a similar negative moderation pattern (*B* = −0.1868, *SE* = 0.054, *t* = −3.436, *p* < .001, 95% *CI* [−0.294, −0.080]). These findings suggest that while TL generally enhances belonging, higher EP may reduce this effect.

For the belonging subscale, the overall interaction between TL and EP was not significant (*B* = −0.164, *SE* = 0.088, *t* = −1.869, *p* = .063, 95% *CI* [−0.337, 0.009]). However, the specific dimensions of TL again indicated a significant negative interaction: *Identifying and Articulating a Vision* (*B* = −0.125, *SE* = 0.061, *t* = −2.040, *p* = .043, 95% *CI* [−0.245, −0.004]), *Providing an Appropriate* Model (*B* = −0.185, *SE* = 0.061, *t* = −3.060, *p* = .003, 95% *CI* [−0.305, −0.066]), *Fostering the Acceptance of Group Goals* (*B* = −0.150, *SE* = 0.059, *t* = −2.525, *p* = .012, 95% *CI* [−0.266, −0.033]) and *Providing Individualized Support* (*B* = −0.160, *SE* = 0.065, *t* = −2.460, *p* = .015, 95% *CI* [−0.288, −0.032]). These results indicate that higher EP weakens the positive impact of TL on belonging within groups.

For the uniqueness subscale, the interaction effect between TL and EP was also negative (*B* = −0.264, *SE* = 0.075, *t* = −3.541, *p* < .001, 95% *CI* [−0.412, −0.117]). Again, the specific dimensions of TL showed similar negative moderation effects: *Identifying and Articulating a Vision* (*B* = −0.174, *SE* = 0.052, *t* = −3.333, *p* = .001, 95% *CI* [−0.277, −0.071]), *Providing an Appropriate Model* (*B* = −0.242, *SE* = 0.051, *t* = −4.729, *p* < .001, 95% *CI* [−0.343, −0.141]), *Fostering the Acceptance of Group Goals* (*B* = −0.192, *SE* = 0.053, *t* = −3.633, *p* < .001, 95% *CI* [−0.296, −0.088]) and *Providing Individualized Support* (*B* = −0.214, *SE* = 0.056, *t* = −3.848, *p* < .001, 95% *CI* [−0.324, −0.104]). These findings suggest that higher EP may reduce the positive impact of TL on individual uniqueness within groups.

Table 4.8

Moderation Analysis Results: Interaction Effects

Dependent Variable	Interaction Term	B	LLCI	ULCI
Belonging total	TL total x EP	-.2141	-.3576	-.0705
	Identifying a Vision x EP	-.1492	-.2495	-.0489
	Providing a Model x EP	-.2135	-.3125	-.1146
	Fostering Group Goals x EP	-.1706	-.2698	-.0714
	High Performance Expectations x EP	-.0462	-.1527	.0603
	Providing Individualized Support x EP	-.1868	-.2941	-.0795
	Intellectual Stimulation x EP	-.1072	-.2197	.0053
Belonging subscale	TL total x EP	-.1639	-.3369	.0091
	Identifying a Vision x EP	-.1246	-.2452	-.0040
	Providing a Model x EP	-.1852	-.3046	-.0658
	Fostering Group Goals x EP	-.1495	-.2663	-.0326
	High Performance Expectations x EP	-.0121	-.1369	.1128
	Providing Individualized Support x EP	-.1597	-.2878	-.0316
	Intellectual Stimulation x EP	-.1082	-.2420	.0257
Uniqueness	TL total x EP	-.2642	-.4115	-.1170
	Identifying a Vision x EP	-.1738	-.2767	-.0709
	Providing a Model x EP	-.2418	-.3427	-.1409
	Fostering Group Goals x EP	-.1918	-.2960	-.0876
	High Performance Expectations x EP	-.0802	-.1885	.0280
	Providing Individualized Support x EP	-.2139	-.3237	-.1042
	Intellectual Stimulation x EP	-.1062	-.2200	.0076

Overall, H3 is not supported. Instead of strengthening the relationship between TL and belonging, higher EP actually weakens this relationship across all scales.

To further illustrate the moderation effects of EP on the relationship between TL and belonging, graphs were created for the significant moderations of the belonging total scale and uniqueness subscale (see Figures 4.1 and 4.2). These graphs demonstrate how the interaction between TL total and EP affects the dependent variables. Graphs illustrating moderation effects for specific dimensions of TL (e.g., *Identifying and Articulating a Vision*, *Providing an Appropriate Model*, *Fostering Group Goals*, *Providing Individualized Support*) are included in the annex for reference.

Figure 4.1 visualizes the interaction effect between TL total and EP on belonging total. The graph shows two lines representing low and high levels of EP. At low levels of EP (−0.791), the relationship between TL and belonging is strongest (B = 0.495, SE = 0.074, t = 6.687, p < .001, 95% CI [0.349, 0.642]), with a steeper positive slope. At average levels of EP (0.010), the relationship remains significant but weaker (B = 0.324, SE = 0.063, t = 5.151, p < .001, 95% CI [0.200, 0.448]). While at high levels of EP (0.610), the relationship is weakest but still significant (B = 0.196, SE = 0.085, t = 2.297, p = .023, 95%

CI [0.028, 0.364]), indicated by a flatter slope. This aligns with the moderation analysis results, which revealed that higher EP weakens the positive impact of TL on belonging (*B* = −0.214).

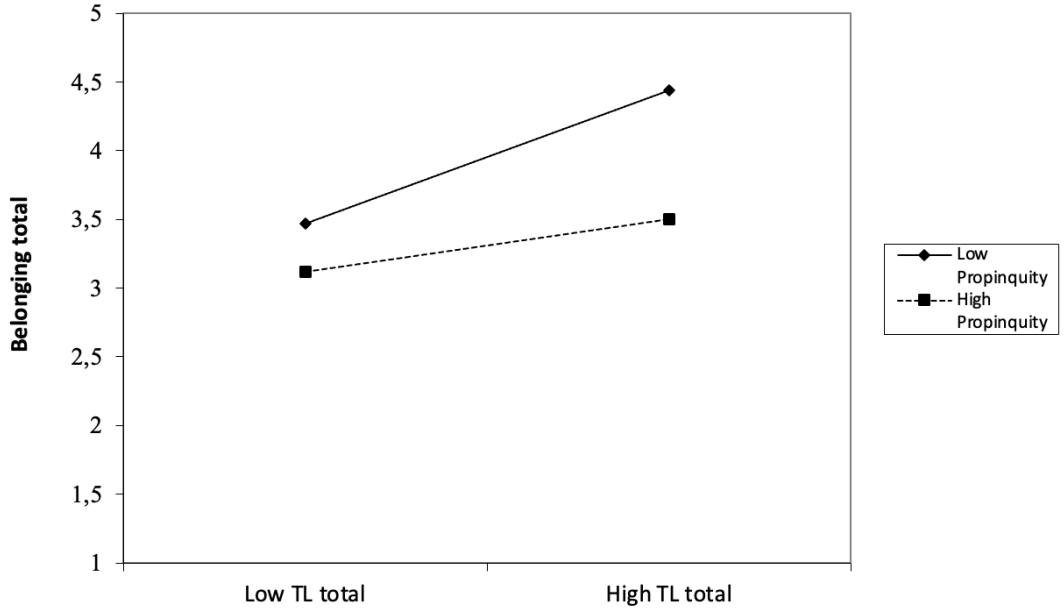


Figure 4.1: *Moderation of TL total and Belonging total by EP*

Moreover, figure 4.2 illustrates the interaction effect for uniqueness. Unlike the previous graph, this visualization shows a more distinct flattening of the slope at high levels of EP. At low levels of EP (−.790), the relationship between TL and uniqueness was strongest (*B* = 0.501, *SE* = 0.076, *t* = 6.589, *p* < .001, 95% *CI* [0.351, 0.651]). At average levels of EP (0.010), the relationship remained significant but weaker (*B* = 0.289, *SE* = 0.065, *t* = 4.482, *p* < .001, 95% *CI* [0.162, 0.417]). Whereas at high levels of EP (0.610), the relationship was weakest and no longer significant (*B* = 0.131, *SE* = 0.087, *t* = 1.495, *p* = .17, 95% *CI* [-0.042, 0.303]).

Overall, the moderation graphs collectively demonstrate that higher EP weakens the positive relationship between TL and belonging measures. This effect is particularly pronounced for uniqueness at high levels of EP, where the relationship loses statistical significance entirely, highlighting how virtual connections may disproportionately affect individual expression within groups compared to overall feelings of belonging. This suggests that EP has a stronger moderating impact on the uniqueness dimension of belonging than on overall belonging itself.

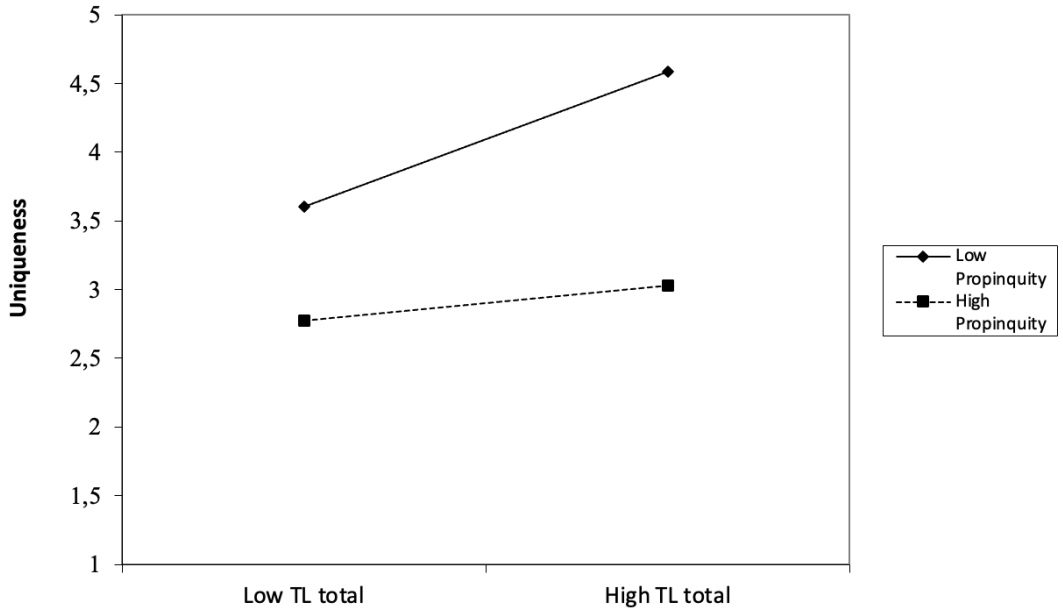


Figure 4.2: *Moderation of TL total and Uniqueness by EP*

4.2 Discussion

Following the presentation of the main findings, this section delves deeper into the relationships and patterns that emerged from the data. The discussion is structured to systematically examine the statistical analyses conducted, beginning with an exploration of the correlation matrix to identify initial associations among the key variables. This is followed by a detailed evaluation of the hypotheses through regression and moderation analyses, which provide further insight into the mechanisms underlying the observed effects. By analyzing these results, the discussion aims to clarify how transformational leadership, belonging, uniqueness, electronic propinquity and demographic factors interact within hybrid environments. This sets the stage for a nuanced interpretation of the study's contributions and implications.

The correlation matrix offers a first overview of the data and highlights significant relationships between variables. As expected, belonging total and its subscales show significant positive correlations with most of the transformational leadership dimensions. However, the results also reveal nuanced differences between the belonging and uniqueness subscales. For instance, while *Intellectual Stimulation* is significantly correlated with the uniqueness subscale, it does not show a significant relationship with the belonging subscale. This distinction suggests that certain transformational leadership dimensions might be more in line with individual-focused outcomes, for example fostering creativity and autonomy, than with group-oriented ones. These observations provide a first

understanding of how transformational leadership dimensions may differently impact various aspects of belonging, which will be further investigated in the regression and moderation analyses.

Moreover, the negative correlation between the office-remote ratio and *Intellectual Stimulation* suggests that employees who work remotely may find their work more intellectually stimulating compared to those in office settings. This could be due to the increased autonomy required in remote environments, where individuals often need to solve problems independently without immediate support from colleagues or supervisors (Boskovic, 2021). Autonomy in such scenarios may lead to greater cognitive engagement and an increased sense of intellectual stimulation.

In terms of demographic variables, the findings show a negative relationship between age and transformational leadership behaviors, indicating that older employees perceive their leaders as less transformational. Generational differences in leadership expectations or communication preferences might be causes of this trend. Older employees may have developed different perceptions of leadership styles over their careers, which can potentially influence how they evaluate transformational behaviors.

Furthermore, the negative correlations between organizational role and transformational leadership behaviors suggest that individuals in higher roles perceive fewer transformational leadership behaviors from their leaders. This could be because individuals at higher levels often function as leaders themselves, reducing their reliance on others for guidance or inspiration. Consequently, their interactions with leaders may focus less on transformational behaviors and more on collaborative or strategic discussions. All in all, the correlation matrix provides a first overview of potential relationships among transformational leadership dimensions, belonging, electronic propinquity and demographic factors, which will now be further discussed through linear and multiple regression analyses as well as moderation analysis.

The linear regression analysis supports the hypothesis that transformational leadership is positively associated with belonging. This relationship remains significant even after controlling for demographic variables such as age, gender, educational level and role. This emphasizes the important role of transformational leadership in fostering a sense of belonging within organizations, independent of individual differences. Moreover, the analysis for the subscales aligns with the findings from the belonging total scale. Transformational leadership influences both dimensions of belonging when considered together and separately. This implies that transformational leaders play a pivotal role in enhancing organizational cohesion by promoting a sense of belonging among employees.

When examining the belonging subscale specifically, the results reveal that transformational leadership behaviors significantly predict employees' sense of being accepted and valued as part of their work group. This finding highlights the importance of leadership behaviors that emphasize shared goals, mutual respect and emotional support in creating a stable and supportive community within the workplace.

Moreover, even though none of the demographic variables were significant predictors, education level approached marginal significance. This could indicate that individuals with different educational backgrounds might perceive or experience belonging differently in response to transformational leadership behaviors. However, this trend requires further exploration to determine its practical significance.

For the uniqueness subscale, transformational leadership behaviors also emerged as a significant predictor. This finding highlights the ability of transformational leaders to recognize and appreciate employees' individuality and distinct contributions within the group context. By fostering an environment where unique perspectives are valued, transformational leaders can help employees maintain their personal identity while feeling integrated into the collective.

The results for both subscales align closely with those for the belonging total scale. This demonstrates that transformational leadership behaviors are consistently associated with both group-oriented belongingness and individually-focused uniqueness. However, it is noteworthy that transformational leadership seems to be a slightly stronger predictor for overall belonging compared to its subcomponents. This could be due to transformational leadership's holistic approach, which promotes both collective cohesion and individual recognition at the same time but may have the greatest effect when these elements are considered together.

The results of the multiple regression analyses for H2 provide a nuanced understanding of how different dimensions of transformational leadership influence employees' sense of belonging and its subscales. The analysis for belonging total confirms that the dimensions hypothesized to have a stronger positive impact (*Fostering Acceptance of Group Goals*, *Identifying and Articulating a Vision* and *Providing Individualized Support*) indeed emerged with positive coefficients, with the dimensions of *Fostering Acceptance of Group Goals* and *Identifying and Articulating a Vision* being significant. Among these, *Fostering the Acceptance of Group Goals* is the strongest positive predictor of belonging total, with its significance remaining even after controlling for demographic variables. This dimension emphasizes collaboration, teamwork and shared objectives, which directly align with the items in the belonging scale (e.g., "I am connected to my work group" and "I belong in my work group"). By promoting a team attitude and spirit, leaders foster interpersonal connections that enhance employees' sense of being valued members of their work group.

Notably, while *Identifying and Articulating a Vision* was significant in Model 1, this dimension lost significance when demographic controls were introduced. One possible explanation is the influence of education level, which was marginally significant in Model 2. Higher education levels may reduce reliance on leaders to articulate a vision, as individuals with advanced education may independently perceive how their work contributes to organizational goals or societal impact. This autonomy could diminish the perceived importance of visionary leadership for fostering belonging.

Moreover, the remaining transformational leadership dimensions (*Providing an Appropriate Model*, *High Performance Expectations* and *Intellectual Stimulation)* had negative coefficients, though not significant. This pattern supports the idea that behaviors emphasizing individual cognition or performance expectations may detract from group cohesion. For instance, while *Intellectual Stimulation* can foster creativity, it may also shift focus toward individual problem-solving instead of collective goals, which could weaken the sense of connection within the group (Tautz et al., 2022).

For the belonging subscale, which focuses on social connection and validation within the group, *Fostering the Acceptance of Group Goals* again emerged as the strongest predictor. This finding supports the idea that collaboration and teamwork are essential for creating a supportive community where employees feel emotionally connected to their peers. Items in this subscale (e.g., "I feel that people really care about me in my work group") are closely aligned with the emphasis on shared goals.

Notably, *Intellectual Stimulation* showed a marginally significant negative relationship with the belonging subscale. This result suggests that being intellectually challenged might detract from feelings of group connection. Again, a possible explanation is that *Intellectual Stimulation* causes individuals to focus more on their own thinking and problem-solving than on group objectives (Tautz et al., 2022), which can create a sense of isolation from the group. Additionally, employees who feel overwhelmed by intellectual demands may struggle to balance their own cognitive efforts with group interactions, which could further diminish their sense of belonging.

The inclusion of control variables did not alter these relationships significantly but highlighted education level as a significant negative predictor. Higher education levels may moderate perceptions of belonging by fostering independence and reducing reliance on group validation or support. This finding suggests that education level plays a subtle but meaningful role in shaping how employees experience transformational leadership behaviors.

For the uniqueness subscale, which emphasizes individuality within group dynamics (e.g., "I can share a perspective on work issues that is different from my group members"), only *Identifying and Articulating a Vision* emerged as significant. This result highlights how visionary leadership fosters an environment where individuals feel empowered to contribute unique perspectives toward achieving shared goals (Cai et al., 2023). Leaders who clearly communicate a compelling vision create a framework where employees can align their distinct contributions with collective objectives, balancing individuality with shared purpose.

Unlike previous analyses for belonging total and the belonging subscale, several transformational leadership dimensions (e.g., *Providing Individualized Support* and *Fostering Acceptance of Group Goals*) were not significant predictors for uniqueness. This difference underscores how uniqueness emphasizes individuality rather than collective cohesion, shifting the focus toward dimensions that support personal expression within group settings.

Notably, while several transformational leadership dimensions showed negative coefficients when predicting belonging (e.g., *Intellectual Stimulation*), only *High Performance Expectations* maintained its negative coefficient for uniqueness. This might illustrate how, in the absence of sufficient support, high expectations can lead to pressure that undermines individuality. Rigid performance standards may make employees feel limited in their ability to voice original thoughts or viewpoints.

The inclusion of control variables did not substantially alter these relationships, with demographic factors such as education level showing no significant impact on uniqueness. This suggests that perceptions of uniqueness are less influenced by individual characteristics compared to belonging.

The findings for hypothesis 2 highlight distinct patterns across the three dependent variables: For belonging total, collaboration-focused behaviors like *Fostering Acceptance of Group Goals* are most impactful. For the belonging subscale, *Intellectual Stimulation* shows a marginally negative relationship due to its focus on individual cognition rather than group connection. For the uniqueness subscale, visionary leadership (*Identifying and Articulating a Vision*) plays a key role in fostering individuality within collective frameworks. These findings highlight the importance of tailoring transformational leadership behaviors to address both collective cohesion (belonging) and individual distinctiveness (uniqueness) in hybrid contexts.

The moderation analysis for hypothesis 3 revealed unexpected results, challenging the initial assumption that electronic propinquity strengthens the relationship between transformational leadership and belonging. Instead, higher levels of electronic propinquity weakened the positive association between transformational leadership and belonging across all scales, including the belonging total, belonging subscale and uniqueness subscale. These findings contradict H3 and suggest a more complex interplay between leadership behaviors, employees' sense of belonging and electronic propinquity. Below, the implications of these results are discussed in detail.

For belonging total, the moderation analysis showed a significant negative interaction effect between transformational leadership and electronic propinquity. This indicates that higher levels of electronic propinquity reduce the positive impact of transformational leadership on overall belonging. While transformational leadership generally enhances belonging by fostering group cohesion and individual recognition, electronic propinquity appears to act as a substitute for these leadership behaviors. When employees feel psychologically close to their colleagues through technology-mediated communication, they may rely more on peer interactions to fulfill their need for belonging, thereby reducing their dependence on formal leadership.

This substitution effect aligns with functional leadership theory, which emphasizes leadership as a set of functions that can be fulfilled by any team member, not just formal leaders (Morgeson et al., 2010). In high electronic propinquity environments, the team itself may collectively meet the needs

traditionally addressed by transformational leaders, such as fostering collaboration (*Fostering the Acceptance of Group Goals*) or providing emotional support (*Providing Individualized Support*).

Moreover, the findings are in line with Carter et al.'s (2020) framework of distributed leadership in interteam contexts, which holds that leadership is not confined to formal roles but rather emerges through mechanisms that allow teams to independently manage interdependencies. For example, regular digital communication enables teams to share resources and self-organize without depending on leaders to articulate visions or set an example. When external enablers like electronic propinquity fulfill critical leadership functions (e.g., boundary spanning, coordination), the value of transformational leadership behaviors and their impact on fostering belonging diminishes.

Furthermore, the substitution effect observed in high electronic propinquity environments, where peer interactions fulfill roles traditionally attributed to transformational leadership, also aligns with Costa et al.'s (2021) findings on TPV. They demonstrate that in high structural virtuality (e.g., lockdowns), teams with autonomy and interdependence reduce TPV by self-managing coordination and cohesion. Similarly, electronic propinquity's virtual closeness enables teams to mitigate affective distance and information deficits independently, diminishing reliance on transformational leadership's group-oriented behaviors (e.g., articulating visions).

Notably, the negative moderation effect for belonging total appears to be driven more by the uniqueness subscale than the belonging subscale. This suggests that while electronic propinquity reduces the impact of transformational leadership on group-oriented belongingness, its influence is even stronger when it comes to individual distinctiveness within the group.

For the belonging subscale, the overall interaction between transformational leadership and electronic propinquity was not statistically significant. However, specific transformational leadership dimensions (*Identifying and Articulating a Vision*, *Providing an Appropriate Model*, *Fostering Acceptance of Group Goals* and *Providing Individualized Support*) showed significant negative moderation effects. These findings suggest that electronic propinquity's substitution effect operates selectively rather than uniformly across all leadership behaviors. For example, in teams with high electronic propinquity, leaders' efforts to articulate a vision or model desired behaviors may feel redundant if employees already feel validated through peer interactions. However, dimensions like *High Performance Expectations* and *Intellectual Stimulation* showed no significant moderation, likely because they focus on task-related outcomes rather than interpersonal connection. This distinction highlights that electronic propinquity primarily substitutes for transformational leadership behaviors that are directly tied to group cohesion, leaving task-oriented dimensions unaffected.

The strongest negative moderation effects were observed for the uniqueness subscale, which measures individuality within group dynamics (e.g., "I can share a perspective on work issues that is different from my group members"). At high levels of electronic propinquity, the relationship between

transformational leadership and uniqueness weakened significantly and even lost statistical significance entirely at peak levels of electronic propinquity. This suggests that virtual closeness disproportionately affects individual expression compared to overall feelings of belonging. One possible explanation is that high electronic propinquity fosters group cohesion at the expense of individuality. In digitally connected environments, employees may conform to group norms to maintain harmony or efficiency in communication workflows. For example, sharing unique perspectives in virtual settings often carries higher logistical and psychological costs (e.g., scheduling meetings or sending emails), which may discourage employees from expressing divergent views. Recent research by Masjutin et al. (2024) supports this, showing that fatigue from virtual meetings significantly increases individuals' tendency to conform, making it even less likely for employees to voice unique or dissenting opinions during online group discussions.

Moreover, electronic propinquity itself may provide employees with a sense of recognition for their unique contributions through peer interactions, reducing their reliance on leaders for validation. For instance, when colleagues listen attentively during virtual meetings or acknowledge diverse perspectives in team chats, employees may feel their individuality is already valued by the group. This dynamic aligns with functional leadership theory's emphasis on shared leadership roles within teams. As discussed by Carter et al. (2023), when peers fulfill the need for individual recognition, formal leaders become less critical in fostering uniqueness. This is especially relevant in interteam contexts where distributed leadership and collective efforts can enhance group cohesion and performance, allowing teams to manage their interdependencies independently rather than relying solely on designated leaders to provide validation and support.

The stronger negative moderation effects observed for uniqueness compared to belonging suggest that individuality plays a pivotal role in shaping overall feelings of belonging in high electronic propinquity environments. While social connection (belonging subscale) remains important, it is individuality (uniqueness subscale) that differentiates transformational leadership's impact in hybrid settings. When employees feel psychologically close to their colleagues but lack opportunities to express their unique perspectives (due to logistical barriers or conformity pressures), their overall sense of belonging diminishes despite strong group cohesion. This dynamic highlights how virtual communication environments can flatten individuality while amplifying collective closeness. Leaders who fail to address this balance risk undermining employees' holistic sense of belonging by prioritizing group-oriented behaviors over individual recognition.

In conclusion, hypothesis 3 was not supported. Instead of strengthening the relationship between transformational leadership and belonging, higher electronic propinquity weakened this relationship across all scales. The substitution effect observed in high electronic propinquity environments suggests that peer interactions increasingly fulfill roles traditionally attributed to formal leaders, particularly

when it comes to fostering group cohesion and recognizing individuality. Moreover, these results highlight how electronic propinquity has a stronger moderating impact on uniqueness than on overall belonging itself. Implications for practice as well as limitations will be discussed below.

4.3 Implications for Practice

For practitioners navigating hybrid work environments, these insights emphasize the need for leaders to adapt their behaviors by balancing collective cohesion with intentional efforts to preserve individuality within teams. These findings have significant implications for practice, suggesting that leaders should adapt their strategies based on the level of electronic propinquity within their teams and focus on dimensions like *Fostering the Acceptance of Group Goals* to enhance belonging.

In light of the multiple regression findings, and considering the level of electronic propinquity is either not taken into account or is relatively low, leaders in hybrid teams should prioritize behaviors that foster the acceptance of group goals. This dimension emerged as the strongest predictor of employees' sense of belonging, even when controlling for demographic variables. Practically, this means leaders should focus on structured team training and intentional team-building activities. Evidence-based practices such as cross-training and team coaching are shown to enhance collaboration and shared understanding, which are essential for effective teamwork (Salas et al., 2018). Regularly setting clear and challenging team goals, clarifying roles and facilitating open discussions for problem-solving further strengthen team cohesion and alignment.

Moreover, in hybrid work environments, it is essential to intentionally plan meetings and activities that foster team connectedness, as spontaneous informal interactions are less frequent. Face-to-face time should be dedicated to tasks best performed together, such as brainstorming, team building and strategic discussions, while digital tools can support ongoing collaboration. Creating opportunities for social and emotional connection, both virtually and in person, helps maintain a sense of belonging and strengthens the collective identity of the team, even when members are often apart (Buła et al., 2024).

However, while *Intellectual Stimulation* is a hallmark of transformational leadership, the findings indicate it may have a marginally negative effect on belonging. This likely stems from its focus on individual cognition and problem-solving rather than collective goals. Thus, leaders should balance intellectual challenges with opportunities for group interaction, avoid overemphasizing individual problem-solving at the expense of team cohesion and ensure that efforts to stimulate creativity do not inadvertently create isolation or overwhelm employees, particularly in remote contexts where support may be less immediate.

Moreover, to foster a sense of uniqueness within teams, leaders should focus on *Identifying and Articulating a Vision*, as this dimension was the only significant predictor for the uniqueness subscale,

even when controlling for demographic factors. Practically, leaders in hybrid and virtual teams should consistently communicate a clear and inspiring vision that unites team members around shared goals. This involves regularly articulating the team's future direction, explaining how each member's unique strengths contribute to the vision and fostering optimism about what the team can achieve together (van der Voet & Steijn, 2021). By doing so, leaders foster an environment where team members feel both unique and connected, enabling them to align their distinct strengths with the team's overarching purpose, which is especially important in hybrid contexts where informal cohesion is less frequent.

However, as revealed by the moderation analysis, these practical implications diminish in relevance within high electronic propinquity environments. Contrary to hypothesis 3, the results demonstrate that higher electronic propinquity actually weakens the positive impact of formal transformational leadership on belonging and uniqueness. In high electronic propinquity environments, peer interactions increasingly fulfill roles traditionally attributed to formal leaders, such as fostering group cohesion and recognizing individuality. This substitution effect aligns with functional leadership theory, which holds that leadership is a set of functions that can be performed by any team member, not just formal leaders (Morgeson et al., 2010). In practice, this means leaders should facilitate conditions for peer leadership and distributed responsibility, enabling team members to step into leadership roles as needed. More precisely, leaders should encourage open communication and peer recognition, so that employees feel both connected and individually valued by their colleagues and not just their managers (Santos et al., 2015). In highly connected virtual environments, leaders should also recognize when to step back, allowing the team's collective processes and peer interactions to address needs traditionally handled by formal leadership.

Moreover, the findings highlight the risk that high electronic propinquity may foster group cohesion at the expense of individuality, as employees may conform to group norms for efficiency or harmony in digital workflows. Thus, leaders must be mindful of potential for conformity pressures in virtual settings and should actively create opportunities for employees to share divergent perspectives and unique ideas, even when group cohesion is strong. Digital tools should be used not only to connect team members but also to highlight and celebrate individual contributions, helping to balance the needs for belonging and uniqueness in virtual collaboration (Masjutin et al., 2024).

The observed substitution effect and diminished reliance on formal leadership in high electronic propinquity contexts signal a broader shift toward functional leadership, meaning that team members themselves must proactively assume peer leadership roles to sustain both uniqueness and belonging. For practice this means, peers should proactively engage in expressive support (e.g., acknowledging unique contributions in virtual channels) and boundary spanning (e.g., facilitating cross-team collaboration) to validate individuality while maintaining cohesion (Edelmann et al., 2024). For instance, explicitly inviting dissenting perspectives during video calls or tagging colleagues' niche

expertise in shared documents helps counteract conformity pressures inherent in digitally connected teams. Moreover, peers in self-managing teams must co-create and reinforce shared norms (e.g., response-time expectations, meeting protocols) to reduce ambiguity and guide behaviors necessary for effective collaboration (Eseryel et al., 2021). By rotating responsibilities like meeting facilitation or progress tracking, team members distribute leadership labor, ensuring that recognition and cohesion emerge organically from peer interactions rather than hierarchical oversight. Ultimately, in high electronic propinquity contexts, team members' active participation in these roles diminishes reliance on formal leaders for individual validation, aligning with the substitution effect observed in the findings.

All in all, these findings underscore the evolving nature of leadership in hybrid and digitally connected teams. To effectively foster both belonging and uniqueness, leaders must tailor their strategies to the team's level of electronic propinquity, actively guiding and uniting teams when digital closeness is low and enabling distributed, peer-driven leadership when connectivity is high. By striking this balance and remaining attentive to both collective cohesion and individual expression, organizations can build inclusive teams that thrive in the complexities of modern hybrid work environments.

4.4 Limitations and Future Research

The findings of this study should be interpreted in light of several limitations, which also point toward promising directions for future research. Firstly, the study's sample size of 189 participants, while sufficient for initial quantitative analyses, limits the generalizability of the findings. Additionally, the sample was predominantly composed of employees from Germany and Central Europe, with a high proportion of participants holding at least a bachelor's degree, potentially limiting the transferability of findings to other cultural or educational contexts. To enhance generalizability, future research should include a larger and more diverse sample in terms of geography, educational background and organizational structure. Building on this, examining contextual moderators such as organizational culture, team size and specific technologies used, could provide a deeper understanding of the conditions under which these findings hold true.

Moreover, a notable limitation is the lack of data from both leaders and their subordinates. Capturing perspectives from both sides would have enriched the analysis, allowing for a more nuanced understanding of how leadership behaviors are enacted and perceived within hybrid teams. Future research should consider multi-level designs to explore potential discrepancies or alignments between leader self-reports and employee perceptions. Longitudinal research would also help clarify causal relationships and track changes in belonging and uniqueness over time, especially as hybrid work practices continue to evolve.

Another key limitation of this study is the conceptualization of hybrid work as a single, unified category, without distinguishing between different degrees of virtuality or types of hybrid arrangements. This approach may mask important differences in how leadership behaviors and team dynamics function across various hybrid configurations, such as office-centric, balanced or remote-dominant models. Future research should examine how specific hybrid arrangements interact with leadership styles and team processes, to identify whether certain configurations require distinct leadership approaches or foster different patterns of belonging and uniqueness.

Moreover, the diminished efficacy of transformational leadership in high electronic propinquity environments raises critical questions about its suitability for modern hybrid work dynamics. While transformational leadership's leader-centric model remains theoretically robust, its reliance on hierarchical inspiration and individualized influence appears increasingly misaligned with the decentralized, peer-driven interactions enabled by digital tools in high electronic propinquity teams. The substitution effect observed in this study, where peer interactions fulfill functions like fostering cohesion and recognizing individuality, suggests hybrid environments naturally facilitate functional leadership models better suited to digital workflows. Thus, future research should prioritize functional leadership frameworks to better understand how belonging and uniqueness can be fostered in evolving hybrid work environments. For instance, future research could investigate under what hybrid configurations functional leadership most effectively enhances belonging. Moreover, it would be valuable to examine whether peer-led vision articulation through digital collaboration platforms outperforms formal leadership in sustaining belonging for globally dispersed teams or how specific peer behaviors, for example virtual recognition rituals or asynchronous emotional support, fulfill belonging needs traditionally met by leaders.

Furthermore, the stronger moderating effect of electronic propinquity on uniqueness compared to belonging, reveals critical gaps in understanding how digital connectivity reshapes self-expression in hybrid teams. While electronic propinquity facilitates group cohesion through frequent peer interactions, it appears to heighten conformity pressures in virtual workflows, creating a paradox where collective closeness erodes individual distinctiveness. Thus, future research should investigate how peer validation mechanisms in high electronic propinquity environments, such as emoji reactions in digital collaboration platforms or shout-outs in virtual stand-ups, influence whether team members feel comfortable sharing unique perspectives or instead feel pressure to conform. In the same vein, future research should investigate whether asynchronous communication platforms, such as shared documents, threaded discussions or project management tools, better preserve employees' sense of uniqueness in high electronic propinquity environments by enabling reflective, differentiated input, compared to synchronous methods like real-time video conferences.

In summary, this study advances our understanding of leadership and team dynamics in hybrid work settings, while also revealing important limitations that guide future research. Notably, the findings underscore the complex role of electronic propinquity, which not only fosters group cohesion but may also intensify conformity pressures, thereby challenging the expression of individual uniqueness within teams. Future research should build on these insights by disentangling how digital connectivity shapes both belonging and uniqueness. By investigating these nuanced dynamics across varied hybrid configurations and leadership approaches, scholars can better illuminate the conditions that enable both collective cohesion and authentic self-expression in the evolving landscape of hybrid work.

5 Conclusion

The transformation of the modern workplace, accelerated by digitalization and the COVID-19 pandemic, has established hybrid work as a defining characteristic of modern organizations. This thesis aimed to investigate how transformational leadership behaviors influence employees' sense of belonging in hybrid work environments, with particular attention to the moderating role of electronic propinquity. Drawing from foundational theories of belonging, transformational leadership and electronic propinquity, the study addressed three core hypotheses: (1) that transformational leadership behaviors are positively associated with belonging; (2) that certain dimensions of transformational leadership, specifically, *Fostering the Acceptance of Group Goals, Identifying and Articulating a Vision* and *Providing Individualized Support*, are more strongly linked to belonging than others; and (3) that electronic propinquity moderates the transformational leadership – belonging relationship, strengthening it in high electronic propinquity contexts.

The empirical results robustly confirm the first hypothesis: transformational leadership behaviors are a strong and significant predictor of employees' sense of belonging in hybrid teams, even after controlling for demographic factors. This underscores the critical role of leadership in fostering emotional connection, inclusion and identification within dispersed and digitally mediated teams. Notably, transformational leadership's positive effect extends to both the collective dimension of belonging (feeling accepted and valued by the group) and the individual dimension (uniqueness within the group), highlighting the multidimensional impact of effective leadership.

The second hypothesis received partial support. Among the six transformation leadership dimensions, *Fostering the Acceptance of Group Goals* consistently emerged as the strongest and most significant predictor of belonging, both in aggregate and when focusing specifically on the belonging subscale. *Identifying and Articulating a Vision* also demonstrated a significant relationship, particularly with the uniqueness dimension, suggesting that visionary leadership empowers individuals to align their distinct contributions with shared objectives. *Providing Individualized Support*, while theoretically

important, did not reach statistical significance in the models, indicating that in hybrid contexts, collective-oriented leadership behaviors may be more impactful for fostering belonging than individually tailored support. Conversely, dimensions such as *Intellectual Stimulation* and *High Performance Expectations* showed weak or even negative associations with belonging, suggesting that an overemphasis on cognitive challenge or performance pressure may unintentionally undermine group cohesion.

The third hypothesis was not supported. Contrary to expectations, higher levels of electronic propinquity actually weakened the positive relationship between transformational leadership and belonging. This substitution effect suggests that when digital tools effectively foster peer-to-peer closeness, the distinctive contribution of formal leadership to belonging diminishes. In high electronic propinquity environments, peer interactions and distributed leadership increasingly fulfill the functions traditionally attributed to formal leaders, such as articulating vision, modeling behaviors and providing emotional support. The moderation effect was particularly noticeable for the uniqueness dimension, where high electronic propinquity significantly flattened the positive impact of transformational leadership. This raises concerns that virtual closeness may foster conformity at the expense of individual expression.

These findings advance the theoretical understanding of leadership and belonging in hybrid work. They demonstrate that while transformational leadership remains a powerful driver of belonging, its impact is context-dependent and most pronounced when digital closeness is low and the need for formal leadership is high. As electronic propinquity increases, the locus of influence shifts from leaders to the team as a whole, aligning with distributed and functional leadership models. This dynamic is particularly relevant in hybrid settings, where fluid team configurations and widespread digital mediation create new opportunities and challenges for sustaining both group cohesion and authentic individuality.

For practitioners, the results suggest that leaders in hybrid teams should prioritize fostering shared goals and articulating a compelling vision to enhance belonging, especially when digital closeness is limited. However, in highly connected virtual environments, leaders should intentionally step back, enabling peer-driven processes and functional leadership to flourish. At the same time, they must be aware of the risk of conformity pressures and actively create space for the expression of diverse perspectives, in order to ensure that individuality is not lost in the pursuit of cohesion.

These conclusions should be viewed in light of several limitations. The geographically concentrated and relatively small sample restricts generalizability and the study's treatment of hybrid work as a single category may overlook important differences between hybrid configurations. Relying solely on employee self-reports also limits insight into the dynamics between leaders and team members. Future research should prioritize functional leadership frameworks, examining their effectiveness under

specific hybrid arrangements (e.g., office-centric vs. remote-dominant models), while using diverse samples and multi-level designs. Deeper exploration of how electronic propinquity balances peer cohesion with uniqueness through mechanisms like asynchronous communication or peer validation is also critical to advance hybrid work theory.

In sum, this thesis demonstrates that transformational leadership is an essential but contextually contingent lever for fostering belonging in hybrid work environments. Its influence is strongest when digital closeness is low, but as electronic propinquity rises, the leadership role shifts toward the collective, challenging traditional leader-centric models. Organizations seeking to build resilient, inclusive and high-performing hybrid teams must therefore cultivate both strong leadership and empowered, peer-driven collaboration, creating environments where collective cohesion thrives alongside authentic individuality as the world of work continues to evolve.

Bibliographical References

Aleem, M., Sufyan, M., Ameer, I., & Mustak, M. (2023). Remote work and the COVID-19 pandemic: An artificial intelligence-based topic modeling and a future agenda. *Journal of Business Research*, *154*, 113303. https://doi.org/10.1016/j.jbusres.2022.113303

Allen, K., Gray, D. L., Baumeister, R. F., & Leary, M. R. (2022). The Need to Belong: a Deep Dive into the Origins, Implications, and Future of a Foundational Construct. *Educational Psychology Review*, *34*(2), 1133–1156. https://doi.org/10.1007/s10648-021-09633-6

Allen, K., Kern, M. L., Rozek, C. S., McInerney, D. M., & Slavich, G. M. (2021). Belonging: a review of conceptual issues, an integrative framework, and directions for future research. *Australian Journal of Psychology*, *73*(1), 87–102. https://doi.org/10.1080/00049530.2021.1883409

Allen, K., Svendsen, G. T., Marwan, S., & Arslan, G. (2021). Trust and belonging in individual and organizational relationships. In *Emerald Publishing Limited eBooks* (pp. 19–31). https://doi.org/10.1108/978-1-80071-264-520211002

Allen, T. D., Golden, T. D., & Shockley, K. M. (2015). How effective is telecommuting? Assessing the status of our scientific findings. *Psychological Science in the Public Interest*, *16*(2), 40–68. https://doi.org/10.1177/1529100615593273

Avolio, B. J., Gardner, W. L., Walumbwa, F. O., Luthans, F., & May, D. R. (2004). Unlocking the mask: a look at the process by which authentic leaders impact follower attitudes and behaviors. *The Leadership Quarterly*, *15*(6), 801–823. https://doi.org/10.1016/j.leaqua.2004.09.003

Avolio, B. J., & Gardner, W. L. (2005). Authentic leadership development: Getting to the root of positive forms of leadership. *The Leadership Quarterly*, *16*(3), 315–338. https://doi.org/10.1016/j.leaqua.2005.03.001

Bader, B., Gielnik, M. M., & Bledow, R. (2023). How transformational leadership transforms followers' affect and work engagement. *European Journal of Work and Organizational Psychology, 32*(3), 360–372. https://doi.org/10.1080/1359432X.2022.2161368

Bailey, C., Yeoman, R., Madden, A., Thompson, M., & Kerridge, G. (2018). A review of the Empirical Literature on Meaningful Work: Progress and Research agenda. *Human Resource Development Review*, *18*(1), 83–113. https://doi.org/10.1177/1534484318804653

Bass, B. M., & Avolio, B. J. (1994). Transformational leadership and organizational culture. *International Journal of Public Administration*, *17*(3–4), 541–554. https://doi.org/10.1080/01900699408524907

Bass, B. M. (1999). Two decades of research and development in transformational leadership. *European Journal of Work and Organizational Psychology*, *8*(1), 9–32. https://doi.org/10.1080/135943299398410

Bass, B. M., Avolio, B. J., Jung, D. I., & Berson, Y. (2003). Predicting unit performance by assessing transformational and transactional leadership. *Journal of Applied Psychology*, *88*(2), 207–218. https://doi.org/10.1037/0021-9010.88.2.207

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, *117*(3), 497–529. https://doi.org/10.1037/0033-2909.117.3.497

Bell, B. S., McAlpine, K. L., & Hill, N. S. (2023). Leading virtually. *Annual Review of Organizational Psychology and Organizational Behavior*, *10*(1), 339–362. https://doi.org/10.1146/annurev-orgpsych-120920-050115

Bošković, A. (2021). Employee autonomy and engagement in the digital age: The moderating role of remote working. *Ekonomski Horizonti*, *23*(3), 231–246. https://doi.org/10.5937/ekonhor2103241b

Bouziri, H., Smith, D. R. M., Descatha, A., Dab, W., & Jean, K. (2020). Working from home in the time of COVID-19: how to best preserve occupational health? *Occupational and Environmental Medicine*, *77*(7), 509–510. https://doi.org/10.1136/oemed-2020-106599

Bresciani, S., Ferraris, A., Romano, M., & Santoro, G. (2021). Human Resource Management and Digitalisation. In *Digital Transformation Management for Agile Organizations: A Compass to Sail the Digital World* (pp. 117–138). Emerald Publishing Limited. https://doi.org/10.1108/978-1-80043-171-320211007

Brewer, M. B. (1991). The social self: on being the same and different at the same time. *Personality and Social Psychology Bulletin*, *17*(5), 475–482. https://doi.org/10.1177/0146167291175001

Buła, P., Thompson, A., & Żak, A. A. (2024). Nurturing teamwork and team dynamics in a hybrid work model. *Central European Management Journal*, *32*(3), 475–489. https://doi.org/10.1108/cemj-12-2022-0277

Burns, J. (1978). Leadership (1st ed.). New York: Harper & Row.

Cai, W., Fan, X., & Wang, Q. (2023). Linking visionary leadership to creativity at multiple levels: The role of goal-related processes. *Journal of Business Research*, *167*. https://doi.org/10.1016/j.jbusres.2023.114182

Carter, D. R., Cullen-Lester, K. L., Jones, J. M., Gerbasi, A., Chrobot-Mason, D., & Nae, E. Y. (2020). Functional leadership in interteam contexts: Understanding 'what' in the context of why? where? when? and who? *The Leadership Quarterly*, *31*(1). https://doi.org/10.1016/j.leaqua.2019.101378

Carton, A. M., & Cummings, J. N. (2012). A theory of subgroups in work teams. *Academy of Management Review*, *37*(3), 441–470. https://doi.org/10.5465/amr.2009.0322

Chen, L., Luo, F., Zhu, X., Huang, X., & Liu, Y. (2020). Inclusive Leadership promotes Challenge-Oriented organizational citizenship behavior through the mediation of work engagement and moderation

of organizational innovative atmosphere. *Frontiers in Psychology*, *11*. https://doi.org/10.3389/fpsyg.2020.560594

Choudhury, P. (2020), "Our work-from-anywhere future", *Harvard Business Review*, Nov-Dec, pp. 1- 11.

Chung, B. G., Ehrhart, K. H., Shore, L. M., Randel, A. E., Dean, M. A., & Kedharnath, U. (2019). Work group inclusion: test of a scale and model. *Group & Organization Management*, *45*(1), 75–102. https://doi.org/10.1177/1059601119839858

Costa, P. L., Handke, L., & O'Neill, T. A. (2021). Are all lockdown teams created equally? work characteristics and team perceived virtuality. *Small Group Research*, *52*(5), 600–628. https://doi.org/10.1177/1046496421997897

Cousins, K. C., Robey, D., & Zigurs, I. (2007). Managing strategic contradictions in hybrid teams. *European Journal of Information Systems*, *16*(4), 460–478. https://doi.org/10.1057/palgrave.ejis.3000692

Deng, C., Gulseren, D., Isola, C., Grocutt, K., & Turner, N. (2023). Transformational leadership effectiveness: an evidence-based primer. *Human Resource Development International*, *26*(5), 627–641. https://doi.org/10.1080/13678868.2022.2135938

Dewi, S. R., Suryamarta, R., Kurnia, D. & Andari, N. (2020). Sense of Belonging and Job Satisfaction on Employee Performance. *Proceedings Of The International Conference On Community Development (ICCD 2020)*. https://doi.org/10.2991/assehr.k.201017.140

Díaz-Fúnez, P. A., Salvador-Ferrer, C. M., García-Tortosa, N., & Mañas-Rodríguez, M. A. (2021). Are job demands necessary in the influence of a transformational leader? The moderating effect of role conflict. *International Journal of Environmental Research and Public Health, 18*(7). https://doi.org/10.3390/ijerph18073630

Dulebohn, J. H., & Hoch, J. E. (2017). Virtual teams in organizations. *Human Resource Management Review*, *27*(4), 569–574. https://doi.org/10.1016/j.hrmr.2016.12.004

Dutcher, J. M., Lederman, J., Jain, M., Price, S., Kumar, A., Villalba, D. K., Tumminia, M. J., Doryab, A., Creswell, K. G., Riskin, E., Sefdigar, Y., Seo, W., Mankoff, J., Cohen, S., Dey, A., & Creswell, J. D. (2022). Lack of belonging predicts depressive symptomatology in college students. *Psychological Science*, *33*(7), 1048–1067. https://doi.org/10.1177/09567976211073135

Edelmann, C. M., Boen, F., Stouten, J., Broek, G. V., & Fransen, K. (2024). The Power of Peer Leaders: Exploring the Link between Peer Leadership Behaviors and Sustainable Work Outcomes. *Behavioral Sciences*, *14*(1), 2. https://doi.org/10.3390/bs14010002

Eisenberg, J., Post, C., & DiTomaso, N. (2019). Team Dispersion and Performance: The Role of Team Communication and Transformational Leadership. *Small Group Research, 50*(3), 348–380. https://doi.org/10.1177/1046496419827376

Ekelman, F., & Kantor, J. (2023). Thrive with a hybrid workplace: Step-by-step guidance from the experts. Rowman & Littlefield. https://doi.org/10.5771/9781538171684

England, B. J., Brigati, J. R., Schussler, E. E., & Chen, M. M. (2019). Student anxiety and perception of difficulty impact performance and persistence in introductory biology courses. *CBE—Life Sciences Education*, *18*(2), ar21. https://doi.org/10.1187/cbe.17-12-0284

Eseryel, U. Y., Crowston, K., & Heckman, R. (2021). Functional and visionary leadership in Self-Managing Virtual Teams. *Group & Organization Management*, *46*(2), 424–460. https://doi.org/10.1177/1059601120955034

Ferreira, J., Claver, P., Pereira, P. and Thomaz, S. (2020, October), *Remote Working and the Platform of the Future*. Boston Consulting Group. https://web-assets.bcg.com/80/e1/8db524dc4b80abf09f0575cd0eea/bcg-remote-working-and-the-platform-of-the-future-oct-2020.pdf

Fiol, C. M., & O'Connor, E. J. (2005). Identification in Face-to-Face, hybrid, and pure virtual teams: untangling the contradictions. *Organization Science*, *16*(1), 19–32. https://doi.org/10.1287/orsc.1040.0101

Foster, M. K., Abbey, A., Callow, M. A., Zu, X., & Wilbon, A. D. (2015). Rethinking virtuality and its impact on teams. *Small Group Research*, *46*(3), 267–299. https://doi.org/10.1177/1046496415573795

Gibbs, J. L., Sivunen, A., & Boyraz, M. (2017). Investigating the impacts of team type and design on virtual team processes. *Human Resource Management Review*, *27*(4), 590–603. https://doi.org/10.1016/j.hrmr.2016.12.006

Gibson, C. B., Gilson, L. L., Griffith, T. L., & O'Neill, T. A. (2023). Should employees be required to return to the office? *Organizational Dynamics*, *52*(2). https://doi.org/10.1016/j.orgdyn.2023.100981

Gilson, L. L., Costa, P., O'Neill, T. A., & Maynard, M. T. (2021). Putting the "TEAM" back into virtual teams. *Organizational Dynamics*, *50*(1). https://doi.org/10.1016/j.orgdyn.2021.100847

Gray, D. L., Hope, E. C., & Byrd, C. M. (2020). Why Black adolescents are vulnerable at school and how schools can provide opportunities to belong to fix it. *Policy Insights From the Behavioral and Brain Sciences*, *7*(1), 3–9. https://doi.org/10.1177/2372732219868744

Halford, S. (2005). Hybrid workspace: re-spatialisations of work, organisation and management. *New Technology Work and Employment*, *20*(1), 19–33. https://doi.org/10.1111/j.1468-005x.2005.00141.x

Hammell, K. R. W. (2014). Belonging, occupation, and human well-being: An exploration. *Canadian Journal of Occupational Therapy, 81*(1), 39–50. https://doi.org/10.1177/0008417413520489

Handke, L., Aldana, A., Costa, P. L., & O'Neill, T. A. (2024). Hybrid teamwork: what we know and where we can go from here. *Small Group Research*, *55*(5), 805–835. https://doi.org/10.1177/10464964241279078

Handke, L., Costa, P. L., Klonek, F. E., O'Neill, T. A., & Parker, S. K. (2021). Team perceived virtuality: an emergent state perspective. *European Journal of Work and Organizational Psychology*, *30*(5), 624–638. https://doi.org/10.1080/1359432x.2020.1806921

Hanzis, A., & Hallo, L. (2024). The Experiences and Views of Employees on Hybrid Ways of Working. *Administrative Sciences, 14*(10). https://doi.org/10.3390/admsci14100263

Harris, R. (2016). New organisations and new workplaces: Implications for workplace design and management. *Journal of Corporate Real Estate, 18*(1), 4–16. https://doi.org/10.1108/JCRE-10-2015-0026

Hincapie, M. X., & Costa, P. (2024). Fostering hybrid team performance through inclusive leadership strategies. *Organizational Dynamics*, *53*(3). https://doi.org/10.1016/j.orgdyn.2024.101072

Jensen, U. T., Moynihan, D. P., & Salomonsen, H. H. (2018). Communicating the Vision: How Face-to-Face Dialogue Facilitates Transformational Leadership. *Public Administration Review, 78*(3), 350–361. https://doi.org/10.1111/puar.12922

Jiatong, W., Wang, Z., Alam, M., Murad, M., Gul, F., & Gill, S. A. (2022). The impact of transformational leadership on affective organizational commitment and job performance: The mediating role of employee engagement. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.831060

Jooss, S., McDonnell, A., & Conroy, K. (2021). Flexible global working arrangements: An integrative review and future research agenda. *Human Resource Management Review, 31*(4). https://doi.org/10.1016/j.hrmr.2020.100780

Jung, D. I., & Sosik, J. J. (2002). Transformational Leadership in Work Groups: The Role of Empowerment, Cohesiveness, and Collective-Efficacy on Perceived Group Performance. *Small Group Research, 33*(3), 313–336. https://doi.org/10.1177/10496402033003002

Kark, R., Shamir, B., & Chen, G. (2003). The two faces of transformational leadership: Empowerment and dependency. *Journal of Applied Psychology, 88*(2), 246–255. https://doi.org/10.1037/0021-9010.88.2.246

Kirkman, B. L., & Mathieu, J. E. (2005). The dimensions and antecedents of team virtuality. *Journal of Management, 31*(5), 700–718. https://doi.org/10.1177/0149206305279113

Korkmaz, A. V., van Engen, M. L., Knappert, L., & Schalk, R. (2022). About and beyond leading uniqueness and belongingness: A systematic review of inclusive leadership research. *Human Resource Management Review, 32*(4). https://doi.org/10.1016/j.hrmr.2022.100894

Korzenny, F. (1978). A Theory of Electronic Propinquity: Mediated Communication in Organizations. *Communication Research*, *5*(1), 3–24. https://doi.org/10.1177/009365027800500101

Lehmann-Willenbrock, N., Meinecke, A. L., Rowold, J., & Kauffeld, S. (2015). How transformational leadership works during team interactions: A behavioral process analysis. *Leadership Quarterly, 26*(6), 1017–1033. https://doi.org/10.1016/j.leaqua.2015.07.003

Masjutin, L., Bangemann, A., Reimann, L., & Maier, G. W. (2024). Fatigued individuals show increased conformity in virtual meetings. *Scientific Reports*, *14*(1). https://doi.org/10.1038/s41598-024-69786-6

Marco Research & Cint. (2024). *3rd Global Marco New Consumer Report 2024*. In Marco Research.

Morgeson, F. P., DeRue, D. S., & Karam, E. P. (2009). Leadership in Teams: A functional approach to understanding leadership structures and processes. *Journal of Management*, *36*(1), 5–39. https://doi.org/10.1177/0149206309347376

Mortensen, M. & Haas, M. (2021, February 24). Making the Hybrid Workplace Fair. *Harvard Business Review.* https://hbr.org/2021/02/making-the-hybrid-workplace-fair

Mysirlaki, S., & Paraskeva, F. (2020). Emotional intelligence and transformational leadership in virtual teams: lessons from MMOGs. *Leadership and Organization Development Journal, 41*(4), 551–566. https://doi.org/10.1108/LODJ-01-2019-0035

Newman, S. A., & Ford, R. C. (2021). Five Steps to Leading Your Team in the Virtual COVID-19 Workplace. *Organizational Dynamics, 50*(1). https://doi.org/10.1016/j.orgdyn.2020.100802

Ng, P. M. L., Lit, K. K., & Cheung, C. T. Y. (2022). Remote work as a new normal? The technology-organization-environment (TOE) context. *Technology in Society, 70.* https://doi.org/10.1016/j.techsoc.2022.102022

O'Leary, M. B., & Mortensen, M. (2010). Go (Con)figure: Subgroups, imbalance, and isolates in geographically dispersed teams. *Organization Science, 21*(1), 115–131. https://doi.org/10.1287/orsc.1090.0434

Pillai, R., & Williams, E. A. (2004). Transformational leadership, self-efficacy, group cohesiveness, commitment, and performance. *Journal of Organizational Change Management, 17*(2), 144–159. https://doi.org/10.1108/09534810410530584

Podsakoff, P. M., MacKenzie, S. B., Moorman, R. H., & Fetter, R. (1990). Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. *The Leadership Quarterly*, *1*(2), 107–142. https://doi.org/10.1016/1048-9843(90)90009-7

Polzer, J. T., Crisp, C. B., Jarvenpaa, S. L., & Kim, J. W. (2006). Extending the Faultline Model to Geographically Dispersed Teams: How Colocated Subgroups Can Impair Group Functioning. *The Academy of Management Journal, 49*(4), 679–692. https://www.jstor.org/stable/20159792

Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods Instruments & Computers*, *36*(4), 717–731. https://doi.org/10.3758/bf03206553

Purvanova, R. K., & Bono, J. E. (2009). Transformational leadership in context: Face-to-face and virtual teams. *Leadership Quarterly, 20*(3), 343–357. https://doi.org/10.1016/j.leaqua.2009.03.004

Rafique, M. A., Hou, Y., Chudhery, M. A. Z., Waheed, M., Zia, T., & Chan, F. (2022). Investigating the impact of pandemic job stress and transformational leadership on innovative work behavior: The mediating and moderating role of knowledge sharing. *Journal of Innovation and Knowledge, 7*(3). https://doi.org/10.1016/j.jik.2022.100214

Raza, M., Wisetsri, W., Chansongpol, T., Somtawinpongsai, C., & Ramírez-Asís, E. H. (2020). Fostering workplace belongingness among employees. *Polish Journal of Management Studies, 22*(2), 428–442. https://doi.org/10.17512/pjms.2020.22.2.28

Ruggieri, S. (2009). Leadership in virtual teams: A comparison of transformational and transactional leaders. *Social Behavior and Personality, 37*(8), 1017–1021. https://doi.org/10.2224/sbp.2009.37.8.1017

Ryan, R. M., & Deci, E. L. (2000). Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. *American Psychologist*, 55, 68–78. DOI:10.1037/0003-066X.55.1.68

Ryan, R. M., & Deci, E. L. (2022). Self-Determination Theory. In *Encyclopedia of Quality of Life and Well-Being Research* (pp. 1–7). Springer International Publishing. https://doi.org/10.1007/978-3-319-69909-7_2630-2

Sahid, A., Amirullah, I., Khaeriyah, K., Natsir, N., & Syafaruddin, S. (2023). Transformational leadership in organizational change. *International Journal of Economics and Management Research*, *2*(2), 172–177. https://doi.org/10.55606/ijemr.v2i2.110

Salas, E., Reyes, D. L., & McDaniel, S. H. (2018). The science of teamwork: Progress, reflections, and the road ahead. *American Psychologist*, *73*(4), 593–600. https://doi.org/10.1037/amp0000334

Santos, J. P., Caetano, A., & Tavares, S. M. (2015). Is training leaders in functional leadership a useful tool for improving the performance of leadership functions and team effectiveness? *The Leadership Quarterly*, *26*(3), 470–484. https://doi.org/10.1016/j.leaqua.2015.02.010

Shore, L. M., Randel, A. E., Chung, B. G., Dean, M. A., Ehrhart, K. H., & Singh, G. (2011). Inclusion and Diversity in Work Groups: A review and Model for Future research. *Journal of Management*, *37*(4), 1262–1289. https://doi.org/10.1177/0149206310385943

Tajfel, H., & Turner, J. (1986). The Social Identity Theory of Intergroup Behavior. S. Worchel & W. G. Austin (Eds.), *Psychology of Intergroup Relations*, 2, 7–24.

Tautz, D. C., Schübbe, K., & Felfe, J. (2022). Working from home and its challenges for transformational and health-oriented leadership. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.1017316

Van Der Voet, J., & Steijn, B. (2021). Team innovation through collaboration: how visionary leadership spurs innovation via team cohesion. *Public Management Review*, *23*(9), 1275–1294. https://doi.org/10.1080/14719037.2020.1743344

Verma, A., Venkatesan, M., Kumar, M., & Verma, J. (2022). The future of work post Covid-19: key perceived HR implications of hybrid workplaces in India. *Journal of Management Development*, *42*(1), 13–28. https://doi.org/10.1108/jmd-11-2021-0304

Walther, J. B., & Bazarova, N. N. (2008). Validation and application of electronic propinquity theory to computer-mediated communication in groups. *Communication Research, 35*(5), 622–645. https://doi.org/10.1177/0093650208321783

Wan, J., Pan, K. T., Peng, Y. & Meng, L. Q. (2022). The Impact of Emotional Leadership on Subordinates' Job Performance: Mediation of Positive Emotions and Moderation of Susceptibility to Positive Emotions. *Frontiers in Psychology, 13.* https://doi.org/10.3389/fpsyg.2022.917287

Wang, H., Law, K. S., Hackett, R. D., Wang, D., & Chen, Z. X. (2005). Leader-Member Exchange as a mediator of the relationship between transformational leadership and followers' performance and organizational citizenship behavior. *Academy of Management Journal*, *48*(3), 420–432. https://doi.org/10.5465/amj.2005.17407908

Wener, P., & Woodgate, R. L. (2016). Collaborating in the context of co-location: A grounded theory study. *BMC Family Practice, 17*(1). https://doi.org/10.1186/s12875-016-0427-x

Wigert, B. & White, J. (2022, September 14). The Advantages and Challenges of Hybrid Work. Gallup.com. https://www.gallup.com/workplace/398135/advantages-challenges-hybrid-work.aspx

Williams, J. R. (2019). The use of online social networking sites to nurture and cultivate bonding social capital: A systematic review of the literature from 1997 to 2018. *New Media & Society*, *21*(11–12), 2710–2729. https://doi.org/10.1177/1461444819858749

Wilson, J. M., Fletcher, T. D., Pescosolido, T., & Major, D. A. (2021). Extraversion and Leadership Emergence: Differences in Virtual and Face-to-Face Teams. *Small Group Research, 52*(5), 535–564. https://doi.org/10.1177/1046496420986620

Wontorczyk, A., & Rożnowski, B. (2022). Remote, Hybrid, and On-Site Work during the SARS-CoV-2 Pandemic and the Consequences for Stress and Work Engagement. *International Journal of Environmental Research and Public Health, 19*(4). https://doi.org/10.3390/ijerph19042400

Yukl, G. (1999). An evaluation of conceptual weaknesses in transformational and charismatic leadership theories. *The Leadership Quarterly*, *10*(2), 285–305. https://doi.org/10.1016/s1048-9843(99)00013-2

Annexes

Annex A: Moderation Analysis for Belonging Total

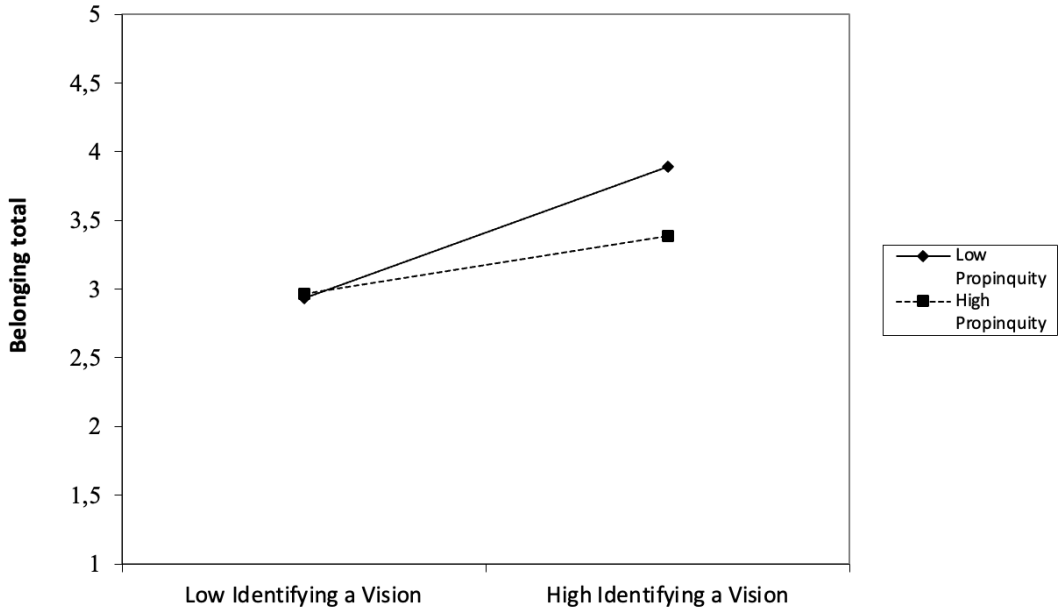


Figure A.1: *Moderation of Identifying and Articulating Vision and Belonging total by EP*

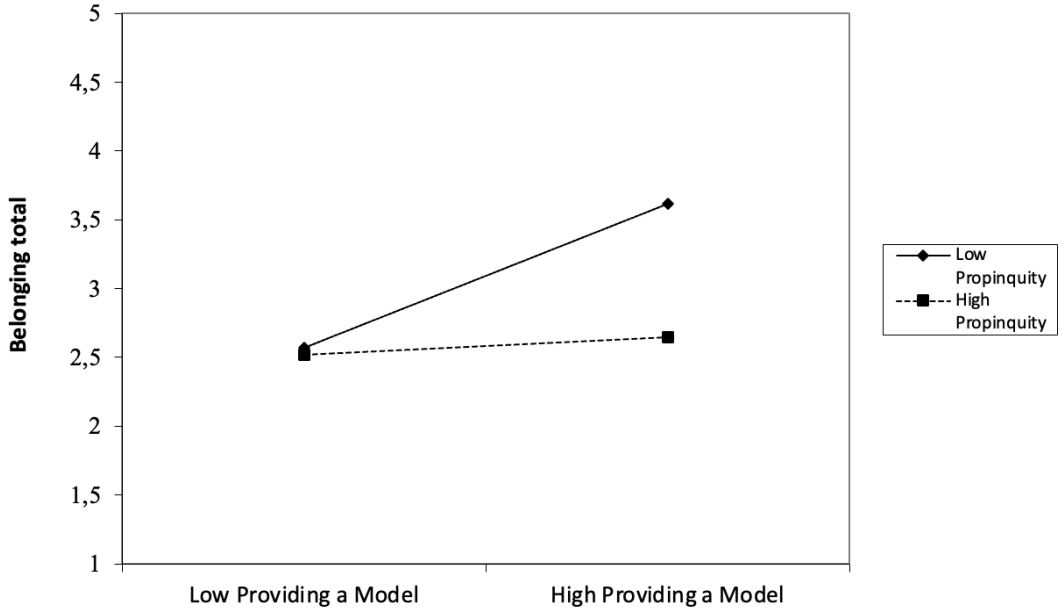


Figure A.2: *Moderation of Providing an Appropriate Model and Belonging total by EP*

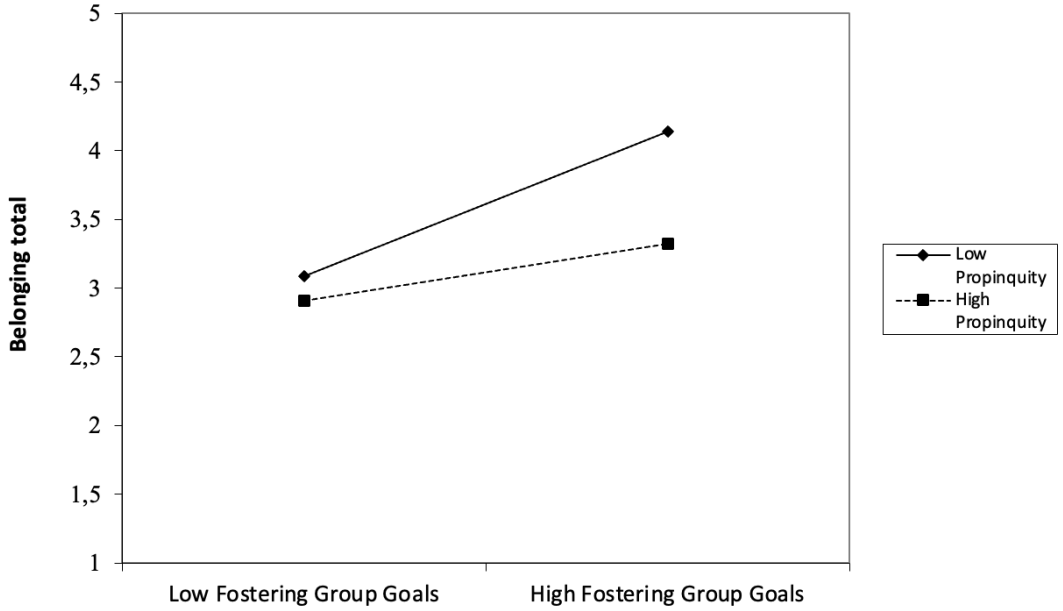


Figure A.3: *Moderation of Fostering the Acceptance of Group Goals and Belonging total by EP*

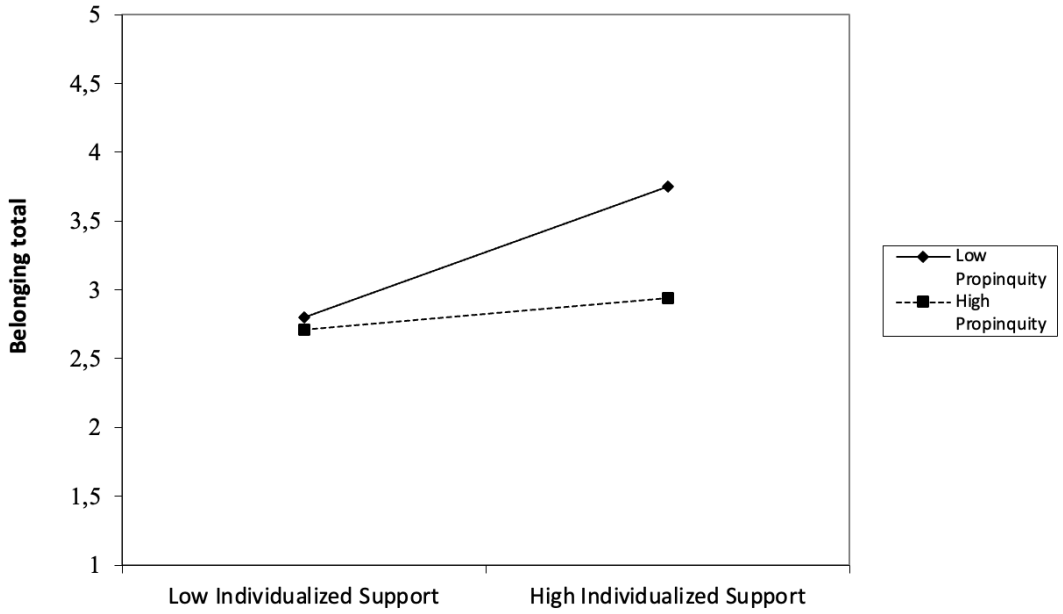


Figure A.4: *Moderation of Providing Individualized Support and Belonging total by EP*

Annex B: Moderation Analysis for Belonging Subscale

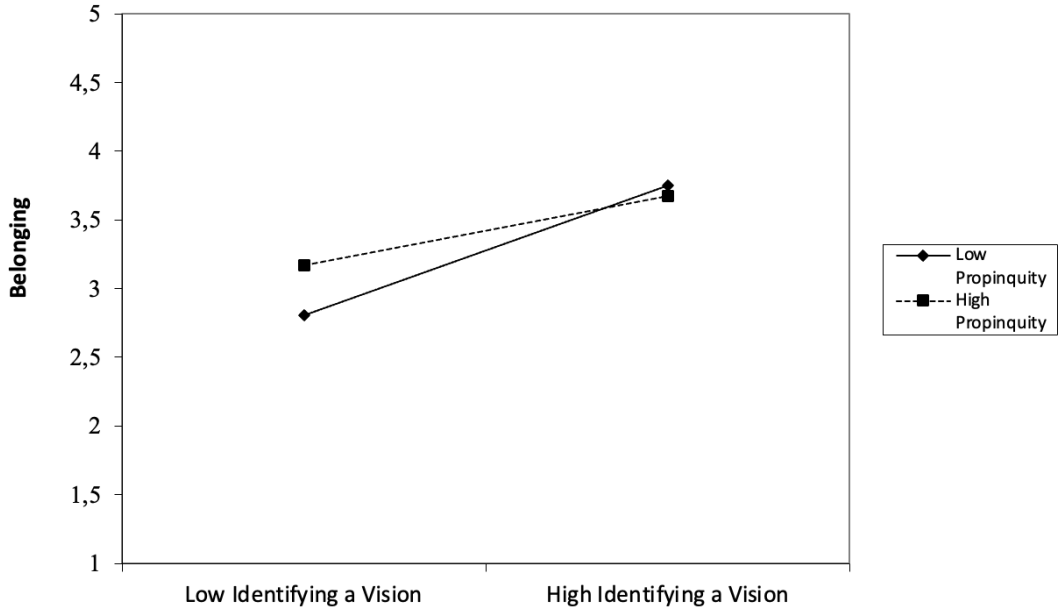


Figure B.1: *Moderation of Identifying and Articulating a Vision and Belonging subscale by EP*

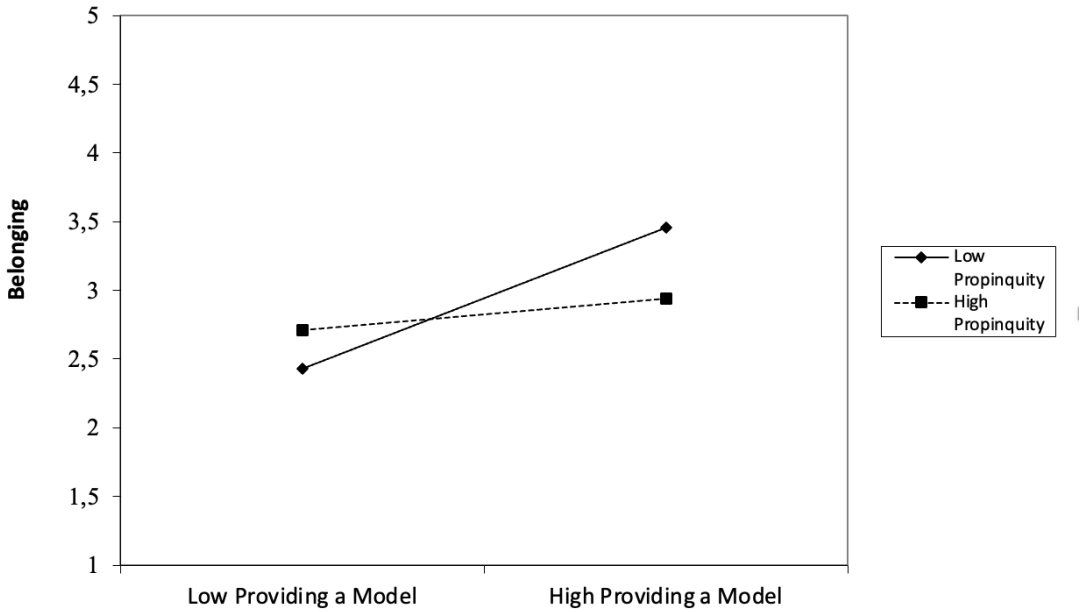


Figure B.2*: Moderation of Providing an Appropriate Model and Belonging subscale by EP*

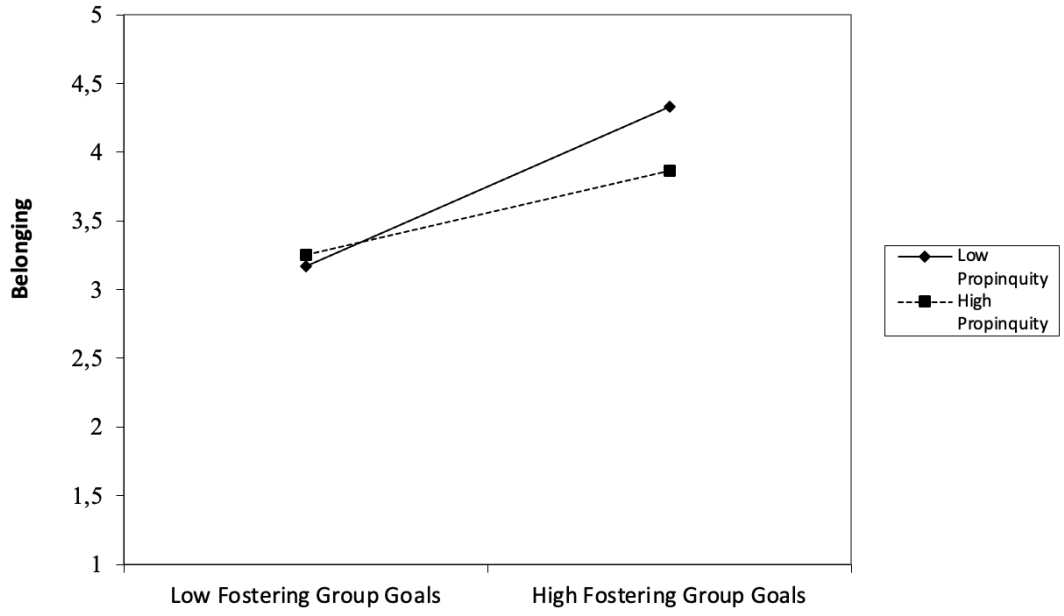


Figure B.3: *Moderation of Fostering the Acceptance of Group Goals and Belonging subscale by EP*

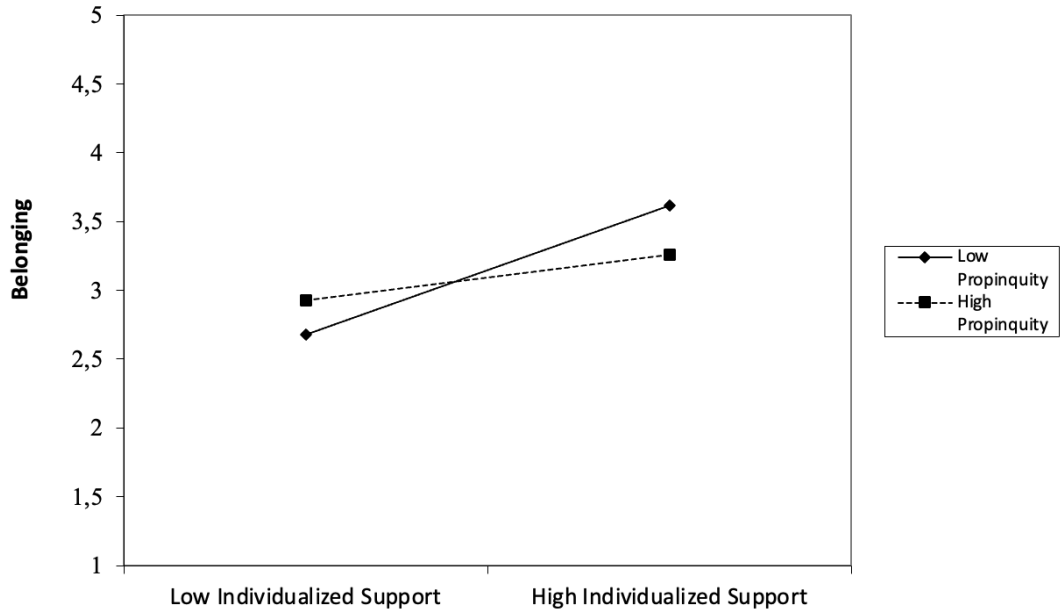


Figure B.4: *Moderation of Providing Individualized Support and Belonging subscale by EP*

Annex C: Moderation Analysis for Uniqueness

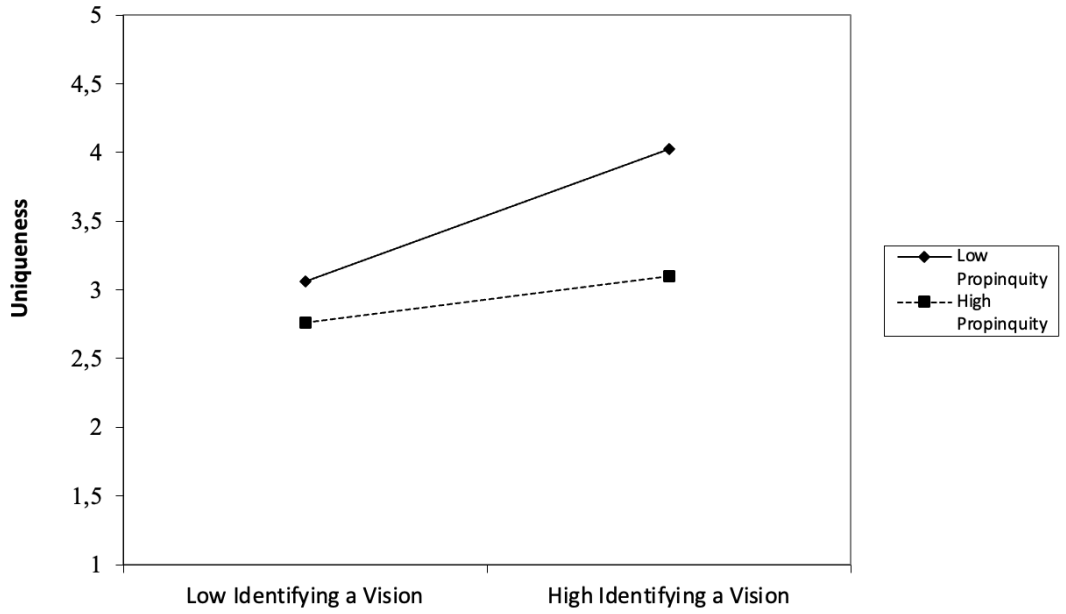


Figure C.1: *Moderation of Identifying and Articulating Vision and Uniqueness by EP*

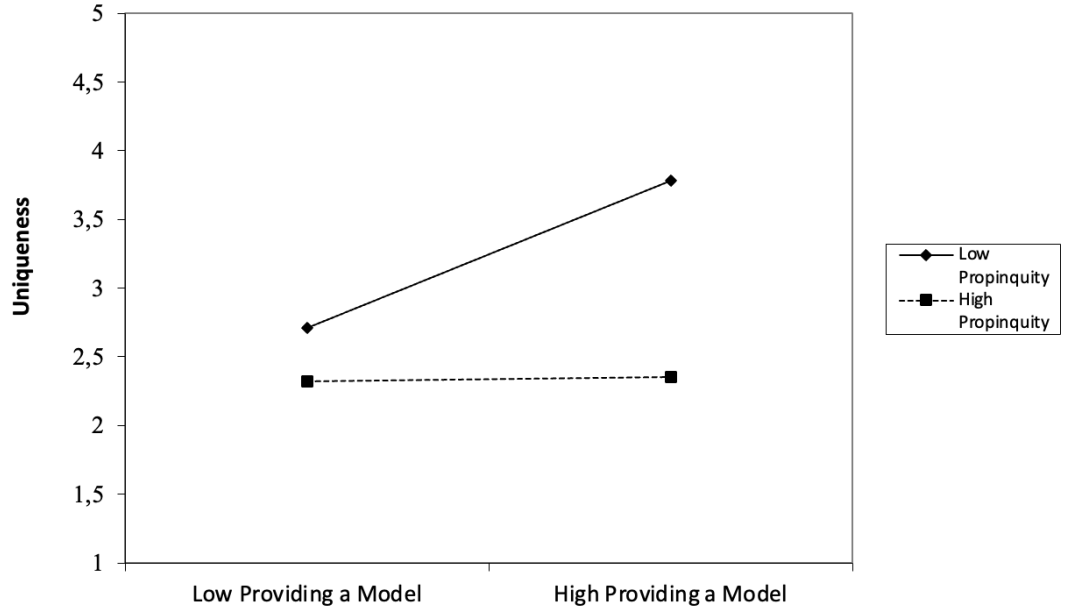


Figure C.2: *Moderation of Providing an Appropriate Model and Uniqueness by EP*

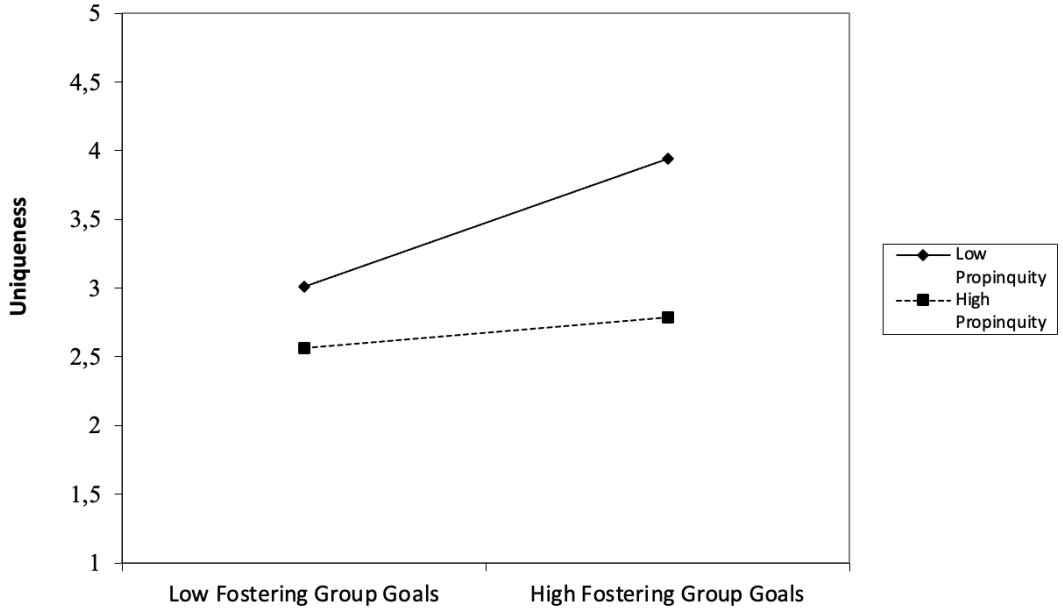


Figure C.3: *Moderation of Fostering the Acceptance of Group Goals and Uniqueness by EP*

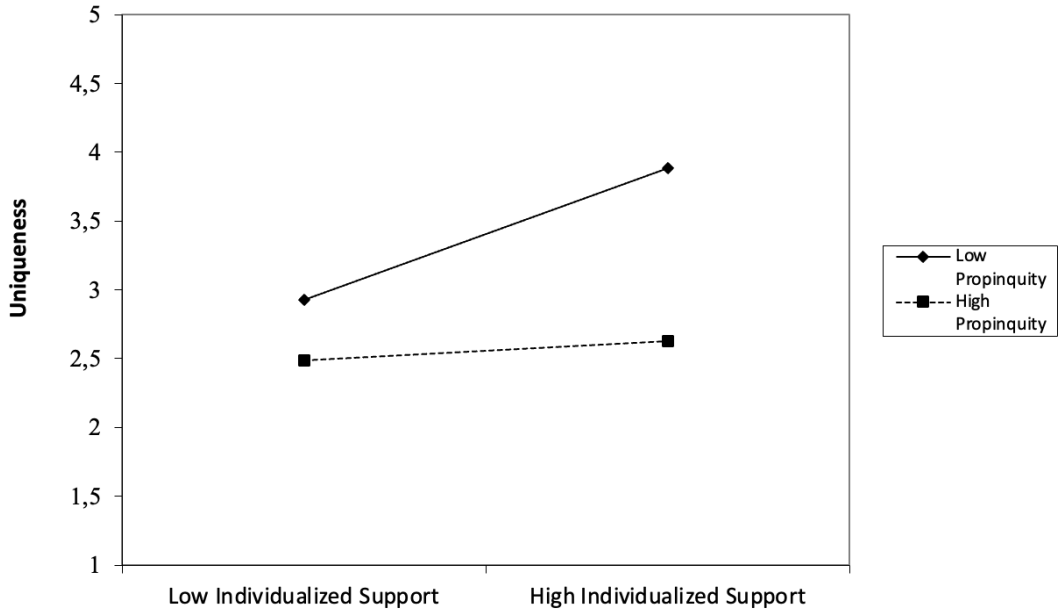


Figure C.4: *Moderation of Providing Individualized Support and Uniqueness by EP*