Inclusion from Afar: The Impact of Virtual Work on the Effects of Inclusive Leadership

by Kira O. Foley

A.A. in Liberal Arts, May 2012, Bard College at Simon's Rock
B.A. in Psychology, May 2014, Clark University
M.A. in Psychology, August 2019, The George Washington University

A Dissertation submitted to

The Faculty of
The Columbian College of Arts and Sciences
of The George Washington University
in partial fulfillment of the requirements
for the degree of Doctor of Philosophy

May 15, 2022

Dissertation directed by

Lynn R. Offermann
Professor of Industrial-Organizational Psychology and Management

The Columbian College of Arts and Sciences of The George Washington University certifies that Kira O. Foley has passed the Final Examination for the degree of Doctor of Philosophy as of March 29, 2022. This is the final and approved form of the dissertation.

Inclusion from Afar: The Impact of Virtual Work on the Effects of Inclusive Leadership

Kira O. Foley

Dissertation Research Committee:

Lynn R. Offermann, Professor of Industrial-Organizational Psychology and Management, Dissertation Director

N. Sharon Hill, Associate Professor of Management, Committee Member

Yisheng Peng, Assistant Professor of Industrial-Organizational Psychology, Committee Member

© Copyright 2022 by Kira O. Foley
All rights reserved

Acknowledgements

I would like to extend my sincerest gratitude the many talented and wonderful people who have contributed to my success over the years. First, I would like to thank my advisor and mentor, Lynn Offermann, for all the advice, support, and mentorship she has invested in my academic development over the years. I would also like to thank those who have taught the countless classes that have help get me to where I am today, including my college professors at Bard College at Simon's Rock that inspired me to pursue a career in psychology and at Clark University who gave me the opportunity to conduct research for the first time, but especially to my graduate school professors, Lynn Offermann, David Costanza, N. Sharon Hill, Tara Behrend, and Philip Wirtz, for teaching me how to create truly impactful research contributions. To my ARI mentors and colleagues, especially Stefanie Shaughnessy, Greg Ruark, and Alisha Ness, thank you for your guidance and support. All the advice and opportunities you offered me have truly expanded my horizons and pushed me from research student to scientist. I am also extremely grateful for the friendship and camaraderie of my fellow graduate students, especially Daniel Ravid, Ahleah Miles, and David Tomczak. Your support and feedback have undoubtably made me a better scholar, but it was all the good times we shared that made graduate school a fun chapter of life. Finally, thank you to my family. To my parents, Melissa and Tim, your unconditional love and confidence in me has allowed me to dream big. To James, thank you for being my smart, loving, hilarious rock, and to our dog Levi, even though you cannot read (yet!), you deserve acknowledgement for forcing us to leave the house during the pandemic and for being the best good boy.

Abstract of Dissertation

Inclusion from Afar: The Impact of Virtual Work on the Effects of Inclusive Leadership

Many of today's organizations operate in a global context where leaders are challenged by increasing demographic diversity in the workforce and more reliance on communication technologies and virtual work arrangements. Recently, there have been calls for a better understanding of how diversity and inclusion can be properly managed amidst the widespread digitalization of work. The purpose of this dissertation is to understand how virtual work environments help or hinder inclusive leaders to promote performance and reduce discrimination. A sample of 244 adults working full-time in the U.S. was recruited from Amazon Mechanical Turk. Results from an online questionnaire suggest the ability of inclusive leadership to improve performance is impeded by some but not all aspects of virtual work. For example, inclusive leadership is most effective for improving follower task performance and helping behavior when leaders and followers work from the same location (e.g., in the same office) but is not impacted by the overall extent to which leaders and followers rely on technology to communicate. In addition, both inclusive leadership and workgroup inclusion were unrelated to workgroup discrimination. Taken together, these findings provide novel implications for future research on the role of virtuality in workplace inclusion and the impact of inclusion on discrimination. They also offer insight into the extent to which organizations should consider the impact of virtual work arrangements on diversity, equity, and inclusion strategies.

Table of Contents

Acknowledgements iv

Abstract of Dissertation v

Table of Contents vi

List of Figures vii

List of Tables viii

Chapter 1: Introduction and Literature Review 1

Chapter 2: Method 61

Chapter 3: Results 84

Chapter 4: Discussion 92

References 114

Appendix A 145

Appendix B 147

Appendix C 148

Appendix D 149

Appendix E 153

List of Figures

Figure 1. Conceptual Model Predicting Performance..... 41

Figure 2. Conceptual model Predicting Discrimination 42

Figure 3. Moderated Mediation Results for Task Performance..... 86

Figure 4. Moderated Mediation Results for Helping..... 86

Figure 5. Moderated Mediation Results for Discrimination..... 89

List of Tables

Table 1. Confirmatory Factor Analysis Results 130

Table 2a. Correlations Among Key Variables 131

Table 2b. Correlations Between Key Variables and Controls 132

Table 3a. Simple Mediation Results for Task Performance 132

Table 3b. Simple Mediation Results for Helping 134

Table 4a. Moderated Mediation Results for Task Performance 135

Table 4b. Moderted Mediation Results for Helping 136

Table 5. Simple Mediation Results for Discrimination 136

Table 6. Moderated Mediation Results for Discrimination 138

Table 7. Subjective Ratings of Communication Mediums 139

Table 8a. Exploratory Results for Leader Video and Task Performance 140

Table 8b. Exploratory Results for Leader Video and Helping 141

Table 9a. Exploratory Results for Workgroup Video and Task Performance 142

Table 9b. Exploratory Results for Workgroup Video and Helping 143

Table 10. Exploratory Results for Workgroup Phone and Discrimination 144

Chapter 1: Introduction and Literature Review

Today's organizations operate in a global context. The Internet and ubiquitous access to technology have allowed organizations access to new markets and workforces across the globe while digitalizing organizational life. However, increases in both demographic diversity in the workforce (Vespa et al., 2018) and reliance on virtual work environments (Raghuram et al., 2019) present unique challenges for leadership. Recently, there have been calls for a better understanding of how diversity can be properly managed amidst the widespread digitalization of work (see Georgiadou et al., 2020; Rastetter et al., 2020). Valuing diversity and inclusion, especially inclusion of historically minoritized groups, such as women, racial and ethnic groups, disabled individuals, and older workers, has become widely accepted (if not expected) in today's business society (Hastings, 2009). Diversity is also touted as a strategy to promote creativity, innovation, and performance (Thomas et al., 2019). However, organizational scholars now understand that to fully realize the benefits of a diverse workforce, organizations must effectively develop inclusion (Bell et al., 2011; Ferdman & Davidson, 2002; Roberson et al., 2017; Van Knippenberg & Schippers, 2007). While there are various ways in which organizations can promote an inclusive culture, the inclusive leadership behavioral style has recently been identified as a key ingredient for developing inclusion in organizations (Bourke & Dillion, 2018). For example, Bourke and Espedido (2020) found "what leaders say and do makes up to a 70% difference as to whether an individual reports feeling included" (p. 2). Prior theoretical research suggests that inclusive leaders promote creativity and performance and reduce turnover in their followers (Randel et al., 2016;

Shore et al., 2018), but inclusive leadership is a relatively new research area and "much more work is needed" (Shore et al., 2018, p. 179).

The purpose of this dissertation is to understand how virtual work environments help or hinder inclusive leaders to promote employee performance and reduce discrimination in their workgroups. Inclusive leadership research has yet to account for the many challenges leaders face due to increasingly virtuality in the workplace. In general, virtual work environments have been shown to provide both advantages and challenges for leadership (e.g., Avolio et al., 2014) and workgroup processes (e.g., Gilson et al., 2015). It is likely that some aspects of virtuality aid leaders in facilitating inclusion while other aspects weaken inclusion efforts. For example, the use of asynchronous communication technologies, such as email, may provide leaders with an opportunity to edit what they say to their team before they say it to ensure they are using inclusive language. On the other hand, communicating with team members via email rather than face-to-face may make leaders prone to overlooking individual followers' unique needs given the lack of social cues and body language feedback. To explore the benefits and challenges of inclusive leadership in the context of virtual work, I integrate inclusive leadership theory and ethical leadership theory with theories of virtual leadership. I aim to understand how the extent to which interactions employees have with their leaders and workgroups occur virtually influences the relationships between inclusive leadership and (a) individual employee performance and (b) workgroup discrimination. The current chapter introduces the concepts of inclusion and virtual work, reviews relevant areas of literature, and then builds a theoretical model to be tested with the methods outlined in the following chapter.

What Is Inclusion?

Inclusion refers to the social side of diversity management and emphasizes the importance of how all individuals are treated despite their differences. In short, the purpose of practicing inclusion is to move past simply accepting that diversity exists and towards addressing diversity-related issues. As Verna Myers famously said about the experience of diversity versus inclusion, “diversity is being invited to the party; inclusion is being asked to dance" (Cho, 2019). In other words, Arthur Evans, CEO of the American Psychological Association, says, “inclusion is about not only getting people to dance at the party, but they also have an opportunity to choose the music” (Sawyer et al., 2020). According to the dictionary, being inclusive involves “including everyone, especially allowing, and accommodating people who have historically been excluded (as because of their race, gender, sexuality, or ability)” (Merriam-Webster, n.d.). In practice, there is no universal definition of an inclusive workplace. Many organizations maintain their own definition. For example, The George Washington University Office for Diversity, Equity, and Community Engagement (n.d.) states “The term inclusion is used to describe the active, intentional, and ongoing engagement with diversity – in people, in the curriculum, in the co-curriculum, and in communities (e.g., intellectual, social, cultural, geographic) with which individuals might connect.” The Society for Human Resource Management (n.d.) takes a related but different approach, defining inclusion as “the extent to which each person in an organization feels welcomed, respected, supported and valued as a team member. Inclusion is a two-way accountability; each person must grant and accept inclusion from others.” While each organization tends to adopt its own definition of inclusion and these definitions tend to

change over time, most definitions share an emphasis on the well-being of everyone despite their differences.

It should be noted that the terms *diversity* and *inclusion* tend to be used interchangeably but are in fact distinct constructs (Roberson, 2006). While diversity indicates a value in differences, inclusion refers to the process of ensuring everyone feels they belong despite their differences. The idea that inclusion is necessary to effectively manage diversity-related issues is commonly referred to as *diversity and inclusion (D&I)* practices. The addition of inclusion to the international conversation around workplace diversity highlights a shift away from valuing diversity for diversity's sake and towards an understanding of the complexity of social identities. A focus on diversity alone indicates equal opportunity (as is the purpose of diversity quotas and affirmative action programs), but it is also necessary to make sure everyone feels included once they enter the organization. Inclusion practices are not only the "right thing to do," they are necessary to combat the negative side effects of diversity such as conflict, discrimination, and turnover (Ferdman & Brody, 1996). As Shore et al. (2018) note,

> "The inclusion literature is seeking to establish ways in which organizations can create inclusionary environments and invoke practices such that diversity is not a disadvantage and can in fact provide an organizational advantage. Diversity of a workforce only provides the opportunity for greater innovation, but without inclusion such a benefit is unlikely" (p. 178).

The use of the term "inclusion" instead of similar terms such as "integration" is also important as it signifies a growth in workforce diversity theory over time. Recently, some have argued that a focus on D&I still lacks appreciation for the historical inequality

that continues to affect the daily lives of minoritized groups (Ragazzo, 2020). This argument has led many organizations to adopt the term *diversity, equity, and inclusion (DEI)*. While the concept of equity is still underdeveloped in the literature, "DEI" has become the standard term used in both research and practice. For this dissertation, I use the terms "D&I" and "DEI" interchangeably to refer to inclusive diversity management practices and the term "inclusion" to refer to the category of research on inclusive experiences, behaviors, leadership styles, and group processes.

The concept of inclusion has been studied for decades by social and behavioral scientists from a variety of disciplines. For example, many seminal theories of human needs and motives (e.g., Baumeister & Leary's [1995] ''belongingness hypothesis;" Maslow's [1943] hierarchy of needs theory) posit that social belongingness is a universal human need. Over the years, inclusion has been considered through a variety of lenses (e.g., moral imperative, legal and social pressures, business effectiveness: Ferdman & Brody, 1996) and at multiple levels of abstraction (e.g., a basic human need: Schutz [1958]; the individual experience of inclusion: Ferdman [2014]; group norms for inclusion: Shore et al. [2011]; societal inclusion values: Ely & Thomas [2001]). In the organizational sciences in particular, inclusion is a relatively new research area (Shore et al., 2018). Early workplace inclusion research in the late 1990s focused on inclusion as a solution to the negative impacts of workforce diversity. Much of this early work was conducted by Mor Barak and colleagues (Mor Barak & Cherin, 1998; Mor Barak et al., 1998), who focused on inclusion as an organization-level construct. More recently, the focus of workplace inclusion research has shifted to examine inclusion as a necessity for all employees, but especially for those who have been historically excluded and

marginalized in the workplace (see Ferdman, 2014; Winters, 2014). As described by Shore et al. (2018),

> "Inclusion involves equal opportunity for members of socially marginalized groups to participate and contribute while concurrently providing opportunities for members of nonmarginalized groups, and to support employees in their efforts to be fully engaged at all levels of the organization and to be authentically themselves" (p. 177).

This more recent evolution of inclusion research has focused on lower levels of the organizational hierarchy such as workgroup inclusion (Shore et al., 2011) and inclusive leadership (Randel et al., 2018).

While much of the empirical literature has examined specific inclusion variables in isolation (Roberson & Perry, 2021), inclusion has been conceptualized theoretically as a set of multiple dynamic processes (e.g., Ferdman, 2014; Mor Barak, 2000). In 2014, Ferdman proposed a multi-level framework that proposed different levels at which inclusion can be conceptualized, measured, and practiced. The model presents the individual *experience of inclusion* as the foundation of the inclusion process within organizations. Ferdman et al. (2009) defined the individual *experience of inclusion* as the extent to which individuals "feel safe, trusted, accepted, respected, supported, valued, fulfilled, engaged, and authentic in their working environment, both as individuals and as members of particular identity groups" (p. 6). Their definition is meant to include both (a) the experience of feeling included as an individual and (b) the belief that others who share one's social identities (e.g., gender, race, age) are also included (Ferdman, 2014). The latter component is an important point that has not been fully adopted in the

literature. Inclusion research typically focused on individual experiences of how they themselves are included; however, in practice, inclusion is often more complicated. Social identities are inherently related to group-based experiences and people's feelings of inclusion can fluctuate over time as they encounter new experiences as an individual and as a member of different social groups. For example, one member's experience of inclusion can be jeopardized when learning others who identify with similar social categories do not feel included.

Ferdman's (2014) multilevel inclusion model also posits that the individual *experience of inclusion* is followed by *inclusive interpersonal behavior* then *group-level inclusion, inclusive leadership*, *inclusive organizations*, and finally, *inclusive societies*. Each level of the model is influenced by and influences the others. For example, experiencing inclusion can lead individuals to perform more inclusive interpersonal behaviors but can also stem from those kinds of behaviors from others. Ferdman (2014) argues that conceptualizing inclusion as an individual experience is necessary for assessing the extent to which inclusion exists and how potently, but individual-level perceptions are insufficient to the study of inclusion in organizations.

Other key theories and models of inclusion, such as Mor Barak's (2000) inclusive workplace model, Randel et al.'s (2018) model of inclusive leadership, Shore et al.'s (2011) workgroup inclusion model, and Shore et al.'s (2018) model of inclusive organizations, share Ferdman's (2014) idea that inclusion is best understood as a multi-level process. For example, Mor Barak's inclusive workplace model, developed in Mor Barak (2000) and expanded in her later work (Mor Barak, 2005, 2011; Mor Barak & Travis, 2010, 2013) highlights the role of an organization's local community and broader

society as stakeholders in the process of inclusion. At a more proximal level, Shore et al. (2011) present a definition of workgroup inclusion where inclusiveness climate, inclusive leadership, and inclusiveness practices antecede employee perceptions of workgroup inclusion. Randel et al. (2018) build on Shore et al.'s (2011) work to develop the concept of inclusive leadership as a key antecedent of workgroup inclusion. In addition, Shore et al. (2018) introduced a model of inclusive organizations that considers the roles of management at multiple organizational levels and inclusion practices at the individual, group, and organizational levels.

The current study examines inclusion mainly as a leadership style (when predicting both employee performance and workgroup discrimination) but also at the group-level when predicting discrimination. To offer context for the specific theories underlying the proposed model, the following sections provide an overview of inclusion research in two main areas relevant to the current research: (a) workgroup inclusion, and (b) inclusive leadership.

Workgroup Inclusion

Workgroup inclusion typically refers to the aggregate of group member perceptions of the level of inclusion in their group (e.g., Jansen et al., 2014; Shore et al., 2011). Specifically, in their popular definition, Shore et al. (2011) draw on optimal distinctiveness theory (ODT). ODT posits that individuals identify with social groups that provide an optimum balance of belonging within the group and uniqueness from others (Leonardelli et al., 2010). Shore et al. (2011) applied ODT to the individual within a group, defining workgroup inclusion as "the degree to which an employee perceives that he or she is an esteemed member of the workgroup through experiencing treatment that

satisfies his or her needs for belongingness and uniqueness" (p. 1265). They argue that workgroup inclusion has two components, it meets members needs to (a) be treated as an insider that belongs and (b) feel they are not only allowed but encouraged to celebrate their differences and retain a sense of uniqueness as an individual.

In a later paper, Jansen et al. (2014) also conceptualized the experience of inclusion in groups as a means of needs fulfilment. However, in contrast to Shore et al.'s (2011) ODT based theory, Jansen et al. (2014) propose a definition based on self-determination theory (SDT; Deci & Ryan, 1991, 2000). Jansen et al. (2014) used SDT to define group-level inclusion as the culmination of two interrelated yet distinct dimensions, belonging and authenticity, where "belonging can be further divided into group membership and group affection" and "authenticity is partitioned into room for authenticity and value in authenticity" (p. 372). Jansen et al. (2014) conceive of belongingness in similar terms to that of Shore et al. (2011) but instead of uniqueness they suggest that group inclusion is defined by meeting individuals needs for authenticity. They chose authentic rather than uniqueness, because they define inclusion as feeling included regardless of whether one is similar or different from other group members. In other words, Jansen et al. (2014) argue a group can be very similar and thus, fail to meet members needs for uniqueness, but still develop inclusion.

Research that follows Shore et al.'s (2011) or Jansen et al.'s (2014) conceptualization of workgroup inclusion assumes everyone's needs for belonging and uniqueness or authenticity are equally relevant. This idea is based on ODT and SDT's assumption that these needs are a universal human phenomenon. Inclusion has been studied as a basic human need since Schutz's (1958) fundamental interpersonal relations orientation (FIRO) model, which identified inclusion, control, and affection as the three

dimensions that explain most human interaction. It remains unknown whether individuals have unique needs for feeling included in their work-related groups specifically, but prior research does provide evidence that individuals differ in the extent to which they need to feel included in social groups (Valcke et al., 2018).

It should be noted that there are important differences in what is meant by workgroup inclusion based on the different ways the construct has been measured and statistically aggregated to the group-level (Offermann & Lanzo, 2020). Studies that measure group members' own individual experiences of inclusion in the context of their group (i.e., scale items refer to the individual) and then aggregate those to a group-level parameter assume inclusion at the group-level is *caused by* individual experiences (i.e., a formative model). For example, Bidee et al. (2017) studied individual team members' perceived inclusion in a daily diary study, asking participants to rate items such as "today, I felt very much a part of my team" for five consecutive days. Within-individual averages were nested into teams and examined in multilevel path analysis. In contrast, studies that calculate a group-level parameter from individual member perceptions of their group's level of inclusion (i.e., scale items refer to the group) assume that inclusion at the group-level *causes* individual perceptions (i.e., a reflective model). For example, Ferdman et al. (2009) developed a scale composed of questions such as "my workgroup encourages group participation" that is meant to capture individual perceptions of inclusion in their workgroup. As described above, multilevel models of inclusion (e.g., Ferdman, 2014) suggest that the relationship between group-level and individual-level inclusion is reciprocal. Thus, these are two distinct but complementary ways to examine workgroup inclusion. The current study follows the former approach (the individual is the

referent) in examining the mediating role of workgroup inclusion between inclusive leadership (items refer to how the leader treats the group) and workgroup discrimination (items refer to how group members treat each other). This approach, where the individual (rather than the workgroup) is the referent and participants are asked about how their workgroup, in general, treats them specifically (see Chung et al., 2020), was chosen considering research that suggests the individual experience of inclusion can differ importantly within groups (Offermann & Lanzo, 2020).

Inclusive Leadership

During the last decade, researchers have begun to explore inclusion as a leadership style. In a recent conceptual review, Randel et al. (2018) defined inclusive leadership as "a set of leader behaviors that are focused on facilitating group members feeling part of the group (belongingness) and retaining their sense of individuality (uniqueness) while contributing to group processes and outcomes" (p. 2). This definition follows Shore et al.'s (2011; 2018) use of optimal distinctiveness theory to define workgroup inclusion as the process of satisfying the universal human needs for belongingness and uniqueness simultaneously. While most inclusion research since Shore et al.'s (2011) review conceptualizes inclusion in this way, the inclusive leadership literature maintains many distinct definitions of inclusive leadership.

Early perspectives define inclusive leadership as leader actions that bring followers into the decision-making process in attempt to be inclusive and appreciative of all group members' input (e.g., Carmeli et al., 2010; Nembhard & Edmondson, 2006). This definition is based on Hollander's (2009) theory of inclusive leadership. In his 2009 book, Hollander argues that "inclusive leadership is about relationships that can

accomplish things for mutual benefit… 'doing things with people, rather than to people,' which is the essence of inclusion.... [which] also provides an atmosphere that promotes fairness of input and output to all" (p. 3). He identifies "the four Rs of inclusive leadership" as Respect, Recognition, Responsiveness, and Responsibility, which characterize a healthy collaborative relationship between leadership and followership. This concept of inclusive leadership as sharing decision-making power draws on the idea of psychological safety in workgroups, which is characterized by a shared belief that group members are safe to take interpersonal risks (Edmondson, 1999; Kahn, 1990). Leaders are seen as inclusive to the extent to which they work to create an environment where everyone feels safe to voice their unique perspectives. When inclusive leadership is defined in this way, it is similar to the shared decision-making power aspects of *empowering leadership*, defined as "leader behaviors directed at individuals or entire teams and consisting of delegating authority to employees, promoting their self-directed and autonomous decision making, coaching, sharing information, and asking for input" (Sharma & Kirkman, 2015, p. 194); and *shared leadership*, defined as "a dynamic, interactive influence process among individuals in groups for which the objective is to lead one another to the achievement of group or organizational goals or both" (Pearce & Conger, 2003, p. 1). This most important distinction between this early perspective on inclusive leadership and empowering or shared leadership is that inclusive leadership seeks to adapt the ideas of sharing power with followers to address diversity related issues specifically.

Another way inclusive leadership has been defined focuses on the quality of a leader-follower dyadic relationship and the extent to which leaders are able to develop

high quality relationships with all followers (e.g., Nishii & Mayer, 2009). According to this perspective, more inclusive leaders are better able to avoid divisions between their followers by fostering a sense of inclusion in each individual follower. This concept of inclusive leadership is very similar to the ideas of *leader-member-exchange differentiation* (i.e., leaders tend to treat their followers differently, which leads to variation in the quality of leader-follower relationships: Liden et al., 2006) and *respectful leadership*, defined as a leader behavioral style that manifests "the belief that the other person (i.e., the follower) has dignity and value in his or her own right" (Van Gils et al., 2018, p. 1592). When inclusive leadership is defined in this way, it seems to assume that inclusion is achieved by the lack of exclusion. However, more recent work on inclusive leadership follows the greater workplace inclusion literature in defining inclusion as something above and beyond simply the lack of exclusion.

More recently, inclusive leadership has been defined is as an intentional behavioral style aimed at meeting the inclusion needs of all followers. Definitions in this category draw on Shore et al.'s (2011) adaptation of optimal distinctiveness theory (ODT; Brewer, 1991) and Jansen et al.'s (2014) use of self-determination theory (SDT; Deci & Ryan, 1991; 2000) to define what specific needs underly the experience of inclusion, namely the need for belonging, uniqueness, and authenticity. Randel et al. (2018) used Shore et al.'s (2011) adaptation of ODT to define inclusive leadership as leader behaviors intended to make followers feel like they belong in the group but also are free to retain their individual uniqueness. Two more recent definitions of inclusive leadership retain Randel et al.'s (2018) argument that the style requires leaders to meet

optimal distinctiveness needs but build on this theory to include additional inclusive behaviors.

First, Ratcliff et al. (2018) argue inclusive leaders as those that "act in a way that makes their followers identify with the team and feel like they belong, while at the same time the followers feel valued for who they are and recognized for their unique strengths" (p. 3). This perspective follows Shore et al. (2011) in assuming there are two core aspects of inclusive leadership, belongingness and uniqueness; however, in developing their measure of inclusive leadership for the U.S. Army, Ratcliff et al. (2018) identify five factors underlying the inclusive leadership behavioral style. Their model includes two factors meant to foster belonging (shared understanding in communication; integration into the unit), two factors related to uniqueness (openness to differences; leveraging unique perspectives and expertise), and an additional factor for fair treatment. The fair treatment dimension refers to leader behavior that embodies:

> "Unbiased and transparent organizational practices, including merit-based promotions, and equitable access to resources (e.g., professional development and training opportunities). Unit members have a shared perception that everyone must meet the same standard, and corrections and disciplinary actions for failing to meet that standard are distributed fairly, respectfully, and according to Army regulations. Soldiers know where they stand based on formal and informal counseling and are given opportunities to make improvements" (p. 4).

The second more recent definition of inclusive leadership was provided by Aitong Li and colleagues (see Li, 2021; Li & Perry, 2020). Li's (2021) definition includes four theoretical dimensions of inclusive leader behaviors. First, it condenses Randel et al.'s

(2018) theory of inclusive leadership as the behavioral style that meets needs for uniqueness and belongingness into a single need fulfilment dimension that also includes authenticity from Jansen et al.'s (2014) concept of group inclusion. This dimension is defined as: "directly addressing work unit members' fundamental needs for uniqueness, authenticity, and belongingness" (p. 11). Following Randel et al. (2018), Li's (2021) definition also includes a fair treatment dimension – "providing equal opportunity and fair treatment to all work unit members" (p. 11). The third dimension is labeled "encouraging integration of and synergy among all work unit members" (p. 11), which reflects earlier definitions based on Hollander's (2009) theory and is similar to Ratcliff et al.'s (2018) definition of belongingness. The final dimension, "implementing organizational diversity and inclusion related policies and programs in the work unit" (p. 11), is the unique contribution of Li's (2021) model. The purpose of this dimension is to include in the definition of inclusive leadership not only "the day-to-day leader and follower interactions that promote inclusion and prevent exclusion in the work unit" (p. 15) but also the critical role leaders at all organizational levels play in implementing diversity and inclusion related policies and programs. This idea that inclusive leadership requires upholding ethical standards – which also shows up in Ratcliff et al.'s (2018) fair treatment dimension items such as "enforces standards equally across all unit members" – is similar to the concept of *ethical leadership*. Ethical leadership is typically defined as "the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision-making" (Brown et al., 2005, p. 120).

Despite this overlap, inclusive leadership has not yet been considered a special case of ethical leadership but remains its own unique behavioral style.

Finally, inclusive leadership has also been conceptualized from a more practitioner oriented (rather than academic) approach as a solution to diversity related conflict and discrimination. According to this perspective, inclusive leaders consciously and intentionally work against discrimination and foster transparency and flexibility in the face of what is a very complicated social problem. Leading the way in this area, Bourke and Espedido (2019) define inclusive leadership as assuring "all team members feel they are treated respectfully and fairly, are valued and sense that they belong, and are confident and inspired" (para. 1). They argue this process requires leaders to possess humility, curiosity about others, cultural intelligence, and a capacity to foster effective collaboration in their teams, while showing a visible commitment to diversity and inclusion and awareness of personal bias. Similar to other ways inclusive leadership has been defined, Bourke and Espedido (2019; 2020) include aspects of empowering leadership, shared leadership, and fulfilling follower needs for belonging and uniqueness. What sets their definition apart is the explicit addition of diversity issues such as a leader's willingness to learn about diversity and their own bias. This reflects something similar to Ely and Thomas' (2020) push for organizations to adopt a learning orientation towards diversity management. However, Bourke and Espedido (2019; 2020) discuss the role of leaders in particular.

The current study draws on Li's (2021) definition and diversity specific approaches (e.g., Bourke & Titus, 2019) to define inclusive leadership based on optimal distinctiveness theory (ODT; Brewer, 1991) and ethical leadership theory (Brown et al.,

2005). The basic premise of ODT is that all human beings share two universal social needs – assimilation and differentiation – that contribute to how individuals define themselves in relation to others (Leonardelli et al., 2010). The need for assimilation motivates individuals to immerse themselves in social groups, while the need to differentiate from others motivates them to maintain a sense of uniqueness as an individual. At its conception, ODT was intended to explain how social needs are met at the collective-level through assimilation within groups and differentiation through comparisons between groups (Leonardelli et al., 2010). Scholars argued that the motivation to balance competing needs for assimilation and distinctiveness drives individuals to socially identify with distinctive groups (i.e., groups that are unique from other groups), because they satisfy both needs to belong in a group and to be valued as a unique individual at the group-level (Leonardelli et al., 2010). Later extensions of ODT have applied the idea of optimal distinctiveness to lower levels of self-representation, namely the relational- and individual-level. For example, Brewer and Roccas (2001) proposed that an individual's need for assimilation is not only met through belonging in groups (collective-level) but also through intimacy in relationships with others (relational-level) and a sense of similarity in their self-identity (individual-level), whereas an individual's need for differentiation is not only met through separation from other groups (collective-level) but also through autonomy in in relationships with others (relational-level) and a sense of uniqueness in their self-identity (individual-level).

The application of ODT to explain how inclusive leadership functions is not perfect. There are two contradictions that should be clarified. First, the theory does "not postulate that optimal distinctiveness is a property of some groups rather than others and

that individuals directly seek identification with such optimal groups" (Leonardelli et al., 2010, p. 68). However, Shore et al.'s (2011) adaptation of ODT to define inclusive workgroups as those with members who are better able to meet their needs for belongingness (i.e., assimilation) and uniqueness (i.e., distinctiveness) could be considered a multi-level application of ODT theory such that assimilation can be met at the collective, group-level while distinctiveness is met at the relational- and individual-levels. Such an adaptation of ODT is appropriate given that inclusion is a multi-level process (Ferdman, 2014). In addition, ODT is an appropriate starting point for explaining the process of developing inclusion given that a central aspect of inclusion is addressing paradoxes (Ferdman, 2017). For example, Ferdman (2017) posits that by conceptualizing inclusion as managing the paradox between belonging versus uniqueness (i.e., the two sides of optimal distinctiveness), inclusion theory can address the inherent contradictions between the ideas that we can all belong and (a) be the same versus (b) be different. He argues that "inclusion is possible only when all are free to be different from each other" and "all have full and equal membership, just like everyone else" (Ferdman, 2017, p. 242). Such adaptations of ODT make it clear that inclusion is achieved through developing inclusive groups, but how leadership contributes to this process is less clear. The current definition of inclusive leadership is based on ODT but defines inclusive leadership as meeting optimal distinctiveness needs at the group-level within the workgroups that they manage rather than at the relational-level between leaders and individual followers. Thus, while ODT explains the goal of inclusive leadership it does not fully explain how inclusive leadership functions. I draw on Brown et al.'s (2005) ethical leadership theory to fill this gap.

The second contradiction between ODT and current inclusive leadership theory that should be clarified is that while all individuals are alike in that they have needs for belongingness and uniqueness, individuals need may be distinct in important ways given the larger social context (Sawyer, 2017). For example, Jansen et al. (2014) argue, "valuing people for their unique traits, insights, or perspectives most probably has different effects on group members depending on their majority or minority status within the group" and so "a conceptualization that makes perceived appreciation of uniqueness a defining characteristic of inclusion may endanger the safe inclusion of prototypical group members" (p. 371). As an alternative to ODT, Jansen et al. (2014) define inclusion based on self-determination (SDT; Deci & Ryan, 1991, 2000), which posits that all individuals have needs for relatedness and autonomy. Jansen et al. (2014) argue that SDT's relatedness is essentially the same as ODT's belongingness, but they propose that SDT's autonomy is more appropriate than ODT's uniqueness for explaining the underpinnings of inclusion in a way that appeals to both minority and majority group members. They posit that valuing autonomy in a group setting involves not only allowing individuals to be different from each other (i.e., valuing uniqueness) but allowing individuals to be whatever is authentic to their identity including what is different and similar other group members (Jansen et al., 2014). On one hand, Jansen et al.'s (2014) use of SDT highlights the failure of previous ODT-based definitions of inclusion to explain how uniqueness needs are met through inclusion. However, SDT is not a replacement for ODT but rather a complementary theory.

The current study addresses these two limitations of ODT-based inclusion theory by (a) adopting Li's (2021) definition of inclusive leadership which integrates Shore et

al.'s (2011) ODT-based definition and Jansen et al.'s (2014) SDT-based definition to define inclusive leadership as a meeting follower needs for belonging, uniqueness, and authenticity such that followers feel they belong in their workgroup and are valued for the extent of uniqueness that is authentic to them; and (b) drawing on Brown et al.'s (2005) ethical leadership theory to explain the behaviors that allow inclusive leaders to meet their goals for developing more inclusive groups and workplaces. Li (2021) defines inclusive leadership as,

> "a distinctive leadership style that ensures fairness and equality for all work unit members, creates integration and synergy in the work unit, and most importantly, makes diversity and inclusion explicit in the work unit (i.e., implementing and complying with organizational diversity and inclusion related policies and programs), in order to best manage diverse employees, address status and power differences, and leverage the synergistic outcomes of diversity." (p. 85).

I build on this definition by applying Brown et al.'s (2005) ethical leadership theory. Ethical leaders are those that act as role models for ethical organizational behavior and manage others to ensure they act ethically as well (Brown et al., 2005; Treviño et al., 2000; 2003). In the ethical leadership literature, ethical leader behavior is defined as "the demonstration of normatively appropriate conduct" (Brown et al., 2005, p. 120), and so the specific behaviors that underly the style depends on the context in which it occurs. This theory can be adapted to the specific context of inclusion such that inclusive leaders demonstrate behavior in line with norms for inclusivity. Defining inclusive leadership as a special case of ethical leadership suggests that inclusive leadership is (a) a dynamic style that leaders can adapt to the specific needs of individual followers in combating the

negative effects of diversity such as conflict, discrimination, and harassment; and (b) an influence process achieved through role modeling inclusive behaviors. In sum, I define *inclusive leadership* as a behavioral style in which leaders intentionally work to meet their followers' needs for belonging, uniqueness, and authenticity while upholding organizational standards for inclusion and acting as a role model of inclusivity to both promote the positive and combat the negative effects of workforce diversity.

What Is Virtual Work?

Technological development has always been a key driver in the changing nature of work, from the assembly lines of Chicago's meatpacking industry in the early 1900s (Sinclair, 2001) to today's use of robotic surgery (Lanfranco et al., 2004) and artificial intelligence court judges (Niller, 2019). However, over the past few decades, virtuality has become ubiquitous. As of June 2020, 62% of the world's population (including 90.3% of North Americans) had internet access (Internet World Stats, 2020). This has allowed many organizations to develop virtual teams with members from various locations and to adopt flexible workplace arrangements and teleworking policies where employees work remotely all or part of the time. Most work environments in the U.S. today include some aspect of virtuality; however, the COVID-19 global pandemic has led to a large uptick in the amount of people working remoting from home (World Economic Forum, 2020), causing many to consider virtual work or some hybrid of virtual and face-to-face the "new normal" (e.g., Towers-Clark, 2020).

Virtual work arrangements, such as remote work or virtual teams, allow employees to be more dispersed geographically (across states, regions, countries) and temporally (across time zones), but also require more reliance on communication

technologies such as email or video conference calls (as opposed to face-to-face). In fact, many teams in multi-national corporations have members located at various offices across one or more countries and are forced to rely on tools such as emails, phone calls, and video conferences to communicate most of the time. Even teams that work in the same building may report to offices on different floors or simply prefer to use as email or instant messenger to communicate throughout the workday. While there are still many jobs that require face-to-face, hands-on work (such as fast-food counter workers or maintenance and repair workers), it is difficult to find a workgroup today that is completely non-virtual where employees always work in the same location and communicate solely face-to-face. Thus, virtuality is currently one of the most important factors for understanding the impact of work environments on organizational behavior and performance (Gilson et al., 2015; Hoch & Kozlowski, 2014; Raghuram et al., 2019; Society for Human Resource Management, 2012).

Virtual work has been considered by organizational scientists interested in a variety of topics such as work-family balance (e.g., the use of flexible work arrangements: Allen et al., 2013); personnel assessment (e.g., the pros and cons of unproctored internet testing [Tippins et al., 2006] and video interviews: [Blacksmith et al., 2016]); performance management (e.g., electronic performance monitoring: Ravid et al., 2020); teams (e.g., virtual teamwork: Schulze & Krumm, 2017); and leadership (e.g., e-leadership: Avolio et al., 2014; global leadership: Holt & Seki, 2012). In a recent review, Raghuram et al. (2019) organized prior virtual work studies into three distinct research clusters: telecommuting, virtual teams, and computer-mediated work (Raghuram et al., 2019). While computer-mediated work refers simply to the use of computer-

mediated communication to interact with others in a job context, telecommuting (also known as telework) and virtual teams are two specific types of virtual work arrangements. Telecommuting research focuses on individual telecommuters, whereas virtual teams research focuses on the impact of virtuality on team-level variables. The current study is focused on diversity and inclusion, an inherently group-level phenomenon, in the context of virtual work. Thus, I draw mostly on virtual teams research definitions and theories to conceptualize virtual work. However, the leadership literature has also considered relevant aspects of virtual work, mainly in the study of "e-leadership" and "global leadership." Before developing a theoretical model of inclusive leadership from afar, the following sections provide a review of related theory and research from the virtual teams and leadership literature.

Virtual Teams

Virtual work at the group-level has been studied primarily in the context of virtual teams. A team is defined as a collective that exists to perform organizationally relevant tasks, has clear boundaries (i.e., members can be clearly distinguished from non-members), and is composed of two or more people who share one or more common goals requiring them to perform interdependent tasks (Kozlowski & Bell, 2012). Virtual teams have been considered a specific type of team (Bell & Kozlowski, 2002); however, many organizations include group structures that include some aspect of virtuality but do not fit the technical definition of team. Traditionally, research on virtual teams compared face-to-face teams to virtual teams, defining virtual teams as distributed and technologically mediated (Bell & Koslowski, 2002). However, it soon became apparent that "virtual team" is a highly diverse category and the virtuality of work environments should instead

be thought of as a spectrum. Today, the term virtual team is defined in the literature as a multi-dimensional construct composed of at least two key dimensions, *technological dependence* and *geographic dispersion*. Technology dependence generally refers to "the extent to which individuals rely on communication tools and the types of communication tools (e.g., email, text, and social media) they use in their work" (Raghuram et al., 2019, p. 313). Geographic dispersion refers to "different forms of distance between participants in virtual work arrangements, including the extent to which virtual workers are distributed across space and time" (Raghuram et al., 2019, p. 313). While dispersion likely leads to technology dependence, co-located teams that are low in dispersion can still be highly virtual due to technology dependence. In other words, both geographic dispersion and technological dependence are continuums, and the various combinations create a wide range of virtual team arrangements. For example, a team that never meets face-to-face and instead relies entirely on email, instant messenger, and video conference to communicate is more technologically dependent than a team whose members rely on emails to communicate most of the year but meet face-to-face each quarter. Each of these teams might be composed of members located in multiple cities, regions, or countries but a team whose members are based out of different countries would be more geographically dispersed than a team whose members are all located in the same country but in different cities.

In addition to the two core dimensions of virtuality, technological dependence and geographical dispersion, some virtual teams research has considered national or cultural diversity as another dimension that contributes to the virtuality of a team (e.g., Gibson & Gibbs, 2006). Team cultural diversity refers to the likelihood that a virtual team consists

of members with more than one national or cultural background (Gibson & Gibbs, 2006). This dimension is typically considered in the study of virtual teams within multi-national corporations where members must collaborate despite a variety of nation-based cultural differences (Holt & Seki, 2021).

While some virtual teams studies focus on general levels of technological dependence, geographic dispersion, and/or cultural diversity, the current best practice is to identify specific dimensions of these higher-level dimensions that are theoretically meaningful to a given research question. The following sections provide an overview of how the facets underlying the two primary dimensions of virtual work, technological dependence and geographic dispersion, have been defined in virtual teams research.

Technological Dependence

Advancements in communication technologies are what make collaboration across different locals, time zones, and national borders possible. However, reliance on electronic media, technology-mediated, or computer-mediated communication (CMC) comes with a new set of challenges. Prior research has shown that CMC can be both a hindrance (e.g., Bell & Kozlowski, 2002) and an affordance (e.g., Ellison et al., 2015; Goldberg, 2015) to communication (Raghuram et al., 2019). CMC provides a means to communicate when face-to-face communication is impossible, but CMC does not always allow for the same value of information to pass between correspondents as compared to face-to-face communication due to objective and subjective dynamics. Thus, to understand the effect of technological dependence on work processes, studies must examine the characteristics of particular CMC mediums (e.g., the type and number of

social cues available) and the role of individuals using those mediums (e.g., individuals may have different preferences or abilities).

Much of the theory and research on virtual work has focused on technological dependence rather than dispersion, which has resulted in a rich literature. Prior studies have examined the impact of the frequency of communication via CMC as opposed to face-to-face, the types of CMC tools used (e.g., email vs. video conference), and the qualities of specific CMC tools (e.g., social bandwidth, synchronous vs. asynchronous: Kirkman & Mathieu, 2005). Theories, mainly social presence theory (Short et al., 1976) and media richness theory (Daft & Lengel, 1986), have been used to differentiate CMC mediums by identifying underlying qualities that define the experience of using them. According to social presence theory (Short et al., 1976), communication mediums differ in the extent to which they transmit social cues such that media that transmits more cues conveys more social presence and communicators are interpreted as more warm, personal, sensitive, and sociable. Similarly, media richness theory (Daft & Lengel, 1986) highlights how communication mediums differ along a continuum of information richness versus leanness. In general, the richness of a CMC medium refers to "its ability to change understanding within a time interval" (Daft & Lengel, 1986, p. 560). For example, email is a leaner media than video conference, because we can expect less information to be conveyed via email where social gestures and emotion are difficult to transmit, but video allows for some of those social cues and thus more information to be conveyed.

Daft and Lengel (1986) identified four dimensions that contribute to communication media richness: (a) the speed of feedback exchange, (b) the types and

multiplicity of channels employed, (c) the ability to communicate a personal warmth or presence, and (d) the variety of the language carried. Face-to-face communication is expected to offer the richest information exchange on all four dimensions, whereas CMC mediums, such as email or video chat, provide varying degrees of information richness. Both social presence theory and media richness theory argue that mediums richer in social cues are better suited to tasks that require in-depth communication, whereas leaner mediums are more favorable for tasks that require the quick transmission of information. Thus, richer media is not inherently better than leaner media; instead, the benefits of media richness depend on the context of the communication.

While the focus has traditionally been on the mediums themselves, some theorizing about the role of technological dependence in work processes has turned its attention to the communicators themselves. For example, channel expansion theory (Carlson & Zmud, 1999) expands on media richness theory, explaining how individuals develop richness perceptions of a given CMC medium. The theory posits that the richness of a given CMC medium is not static and instead individuals' perceptions of richness are influenced by four types of experience: (a) experience with the medium, (b) experience with the messaging topic, (c) experience with the organizational context, and (d) experience with communication coparticipants.

The current study examines the use of CMC between employees and both their leaders and their workgroup. Specifically, the frequency at which CMC is used relative to face-to-face communication is considered in the context of its subjective informational value according to the employee's own perceptions.

Geographic Dispersion

There is less agreement about the geographic dispersion aspect of team virtuality as compared to the technology dependence aspect. Prior research has primarily conceptualized geographic dispersion in terms of the distance across physical space as "geographic" implies (Bell & Kozlowski, 2002; Gibson & Gibbs, 2006; O'Leary & Cummings, 2007). For example, Gibson and Gibbs' (2006) seminal work considered (a) the number of locations where team members were located and (b) the number of team members residing in each location in their measure of "categorical dispersion across locations in each team" (p. 466). They used Blau's (1977) diversity index to calculate dispersion based on these two indicators. More recently, studies have expanded their definition of geographical dispersion in accordance with O'Leary and Cummings' (2007) framework. O'Leary and Cummings (2007) distinguished between spatial and configural dispersion and added temporal dispersion as a third dimension of objective geographic dispersion in workgroups and teams. According to O'Leary and Cummings (2007), workgroup dispersion should be conceptualized as a multi-dimensional construct that includes not only the geographic distance among team members (spatial dispersion) and the number of locations where team members work (one aspect of configural dispersion) but also the extent to which work locations have uneven distributions of team members that lead to imbalance and isolation (additional aspects of configural dispersion) and the time zone difference among team members (temporal dispersion). Thus, O'Leary and Cummings (2007) propose definitions and operationalizations for spatial, configural, and temporal dispersion.

Spatial dispersion refers to the size of the distance between group members (e.g., miles between work sites). For example, a group that primarily works from the same location and includes only one remote member would be characterized by lower spatial dispersion than a group with no collocated members. Whereas spatial dispersion captures the average distance among group members, configural dispersion refers to "the pattern or arrangement of members across sites" (O'Leary & Cummings 2007, p. 439).

Configural dispersion can be described by the number of sites represented by a workgroup, the isolation of individual workgroup members (how many members work alone at their own location), and the imbalance between geographically defined subgroups (how evenly are members distributed across different locations).

Temporal dispersion refers to "the extent to which team members' normal work hours overlap" (O'Leary & Cummings, 2007, p. 438). The extent to which group members work in different time zones can exacerbate communication challenges associated with physical distance. While work schedules can easily be adjusted for small amounts of temporal dispersion (e.g., members working in Chicago, IL could start their workday one hour later than colleagues working in Washington, DC), it may be more challenging for groups with members that span more drastic temporal distances to communicate synchronously without traveling (e.g., a team or group with members working in New York and London).

A year after O'Leary and Cummings (2007) seminal dispersion framework was published, Wilson et al. (2008) introduced the concept of *perceived proximity* to the virtual teams literature. They argued that distance between coworkers has a subjective side distinct from objective measures and so "treating proximity and distance in purely

physical terms provides an incomplete view of how people experience it" (Wilson et al., 2008, p. 980). They explain that differences between objective and subjective distance can create a "far-but-close" paradox where two individuals can be geographically far from each other while at the same time feeling quite close. Perceived proximity is defined as "a dyadic and asymmetric construct which defines one person's perception of how close or how far another person is" (Wilson et al., 2008, p. 983). It is a person's cognitive and affective sense of relational closeness to another person. Perceived proximity is dyadic in that individuals' have perceptions of their proximity to one other individual but asymmetric in that each individual member of a dyad has their own unique perception of proximity to the other individual. Wilson et al. (2008) explain that proximity perceptions are developed over time as the results of two related processes. First, the communication process influences perceived proximity such that "as communication becomes more frequent, deeper in substance (i.e., more personal and more personally significant), and more interactive (i.e., characterized by more interdependent and reciprocal communicative exchanges), physically distant colleagues will seem more proximal" (Wilson et al., 2008, p. 985). Second, the identification process (and resulting state) influences perceived proximity "by creating a basis for common ground, by reducing uncertainty (just as communication does), and by engendering positive attributions when real data are absent" (Wilson et al., 2008, p. 986).

In a subsequent paper, O'Leary et al. (2014) test the perceived proximity theory proposed in Wilson et al.'s (2008) paper and developed a measure of the concept. From a mixed-methods study, they found support for Wilson et al.'s (2008) idea of the "far but close" paradox. Their findings suggest that individuals who work together develop a

symbolic, subjective understanding of proximity despite the objective distance between them. In other words, perceived proximity is distinct from objective distance in that (a) coworkers can be physically far apart but feel close to each other and (b) coworkers can be collocated but feel far away from each other. O'Leary et al. (2014) also found support for the idea that perceptions of proximity stem from communication and identification processes. Specifically, individuals perceived their proximity to colleagues to be higher when they communicated more frequently and saw each other as more similar.

Virtual Leadership

While most of the virtual work literature focuses on virtual teams, there is also a body of literature on virtual team leadership. Leading in virtual environments has been studied from various perspectives. Virtual teams researchers have considered the unique challenges that technology and virtual team arrangements pose on leadership. In a recent review, Larson and DeChurch (2020) organize previous work at the intersection between virtual teams and leadership into four perspectives. First, technology can be thought of as a specific *team context* that fundamentally changes the leadership process. Second, technology can be conceptualized as a type of *sociometrical team practice* in which leaders can shape technology practices and technology can shape the emergence of team leadership structures. Third, technology can be examined as a *creation medium* that enables new types of teams to form in new ways within and outside of formal organizations. Finally, when technology fulfills a distinct role that directly contributes to team performance, it can be conceptualized as a *team member*, and thus requires leaders to manage relationships among human and virtual teammates. The first perspective outlined by Larson and DeChurch (2020) is most relevant to the current study as I

consider virtuality in the relationship between an individual and their leader and/or workgroup as a specific context where varying levels of technological dependence and geographic dispersion create fundamentally different work environments. Researchers who examine the role of technology in the leadership process from the perspective refer to virtual leadership as "e-leadership" (Avolio et al., 2014).

E-leadership refers to the study of how the leadership influence process is mediated by technological development (especially advanced information technology) and how leaders influence the creation and adoption of new information technologies within organizations (Avolio et al., 2014). Research on e-leadership has been spearheaded by Bruce J. Avolio and colleagues who have put forth a formal definition of the concept as well as two seminal reviews (see Avolio et al., 2000; 2014). Almost two decades ago, Avolio et al. (2001) defined e-leadership as:

> "a social influence process mediated by advanced information technology to produce a change in attitudes, feelings, thinking, behavior, and/or performance with individuals, groups, and/or organizations. E-leadership can occur at any hierarchical level in an organization and can involve one-to-one and one-to-many interactions within and across large units and organizations. It may be associated with one individual or shared by several individuals as its locus changes over time" (p. 617).

A decade later, Avolio et al. (2014) revise this definition to place greater emphasis on the important of context such that it now reads: "E-leadership is defined as a social influence process *embedded in both proximal and distal contexts* [emphasis added] mediated by advanced information technology that can produce a change in attitudes, feelings,

thinking, behavior, and performance" (p. 107). The overarching research question e-leadership research is meant to address is "how does the appropriation of advanced information technology (AIT) affect the total leadership system in organizations and in turn, how does leadership affect the appropriation of AIT in the sense of their co-evolution?" (Avolio et al, 2014, p. 108). Thus, e-leadership research is focused on how technological advances influence communication between leaders and followers and pose challenges for the information exchange process when leadership is conducted largely through electronic channels.

Global leadership is another related but distinct area of virtual teams research that focuses more on the impact of dispersion rather than technological development and explores the benefits and challenges of leading across multiple nations and cultures (Holt & Seki, 2012). Research on global leadership arose with the growth of multi-national organizations and teams. In one early definition, Dalton et al. (2002) define a global manager as "one who manages across distance, countries, and cultures ... in a globally complex environment" (p. 4). More recently, Holt and Seki (2012) define a global leader as "anyone who operates in a context of multicultural, paradoxical complexity to achieve results in our world" (p. 199). They argue that global leadership is about managing paradoxes related to performance, relationships, culture, agility, and orientation (Holt & Seki, 2012). For example, global leaders must work at a global and local level, which leads to a paradox in that "global leaders must operate with a global, cosmopolitan mindset. At the same time, they must be sensitive to local markets and needs" (Holt & Seki, 2012, p. 204). Another paradox that characterizes global leadership, as conceptualized by Holt and Seki (2012), is in the balance of common group and

uniqueness such that "global leaders must pay attention to common group characteristics and respect cultural differences. At the same time, they must try to see and appreciate the unique qualities of each individual" (p. 204).

In many ways, global leadership is a specific literature concerned with cultural diversity issues, which is not directly relevant to the current study. However, Holt and Seki's (2012) idea of a "common group and uniqueness" paradox where global leaders must foster a common group identity while respecting cultural uniqueness is very related to the idea of inclusive leadership. Holt and Seki (2012) talk about "paying attention to the uniqueness of another individual requires an additional muscle" that global leaders must build in order to be effective. This is similar to the idea that inclusive leaders take it upon themselves to work on their inclusivity and to show a visible commitment to ethics. Thus, while I do not draw on the global leadership literature to develop my hypotheses, findings from the current study should be relevant to global leaders.

In addition to research on e-leadership and global leadership, the topic of "leader distance" has received some attention. Although not explicitly in reference to virtual work, leadership scholars have discussed the concept of distance between leaders and followers as an important aspect of leadership. The concept of *leader distance* was first defined by Napier and Ferris (1993), who argued leader-follower distance is composed of psychological, structural, and functional distance. Specifically, Napier and Ferris (1993) claimed that the influence of both psychological distance (informed by perceptions of power differentials and similarity) and structural distance (physical, organizational, and leadership structure) on follower performance is mediated by functional distance. Drawing on leader-member-exchange theory, they defined functional distance as the

"degree of closeness and quality of the functional working relationship between the supervisor and the subordinate; in essence, whether the subordinate is a member of the in-group or the out-group" (Napier & Ferris, 1993, p. 337). According to Napier and Ferris (1993), leader distance is mostly a problem of relational quality; however, they recognize the important role physical distance plays in follower perceptions of their relationship with their leader.

Antonakis and Atwater (2002) built on Napier and Ferris' (1993) theory and incorporated more aspects of virtual work environments. They described leader distance in terms of physical distance, interaction frequency, and social distance, arguing "leaders can appear to be very distant to followers if leaders (a) are physically distant from followers, (b) maximize their status and power differentials by virtue of their elevated social position, and (c) maintain infrequent contact with followers" (p. 674). In other words, Antonakis and Atwater's (2002) theory of leader distance posits that followers' perceptions of how much distance there is between their leader and themselves is the result of not only objective physical distance and communication quantity but also social distance which refers to "differences in status, rank, authority, social standing and power, which affect the degree of social intimacy and social contact that develops between followers and their leaders" (Antonakis & Atwater, 2002, p. 282).

Antonakis and Atwater's (2002) leader distance theory includes elements of both geographic dispersion – e.g., physical distance or "how far or how close followers are located from their leader" (p. 684) – and technological dependence – e.g., interaction frequency or "the perceived degree to which leaders interact with their followers" (Antonakis & Atwater, 2002, p. 686). Although neither Napier and Ferris (1993) nor

Antonakis and Atwater (2002) meant for leader distance to be strictly a theory of virtual leadership, the concept can be applied to understanding the unique challenges of leadership in environments characterized by various levels of virtuality. At minimum, this body of literature supports the current study's aim to examine both the objective and subjective aspects of geographic dispersion between leaders and followers.

Integrating Theories of Virtual Teams and Virtual Leadership

Many aspects of virtual work environments have been considered in a leadership context. However, this research has yet to be fully integrated into one comprehensive theory of virtual leadership. Such a theory would require consideration of all key dimensions of virtual work environments and how they impact the leadership influence process. For example, understanding the role of technological dependence in leadership could draw from e-leadership and virtual teams studies, whereas an understanding of the impact of geographic dispersion on leadership processes could be developed based on global leadership research and leader distance theory. Given the lack of an integrated theory of virtual leadership, the current study draws heavily on ideas from the broader virtual teams research area to examine virtuality in employees' relationship with both colleagues in their workgroup and their leaders specifically. However, two key takeaways from the various virtual leadership literatures will inform this study. First, it is important to examine the level of virtuality in employees relationship with their leader specifically as opposed to with their workgroup in general, because there may be meaningful idiosyncrasies the differentiate leader-follower virtuality from workgroup virtuality. Second, a study of leadership in a virtual context is incomplete without considering both objective and subjective perceptions of virtuality in the relationship between leaders and

followers. In sum, I draw on both virtual teams and virtual leadership research to define five virtuality variables based on the two core dimensions of virtual work, technological dependence (relative use of computer mediated communication) and dispersion (three objective dimensions: spatial, temporal, and configural dispersion; and one subjective dimension: perceived proximity).

Current Study: Inclusive Leadership from Afar

Study Purpose and Research Questions

The current study seeks to fill the gaps that exist in our current understanding of how inclusive leaders promote employee performance and prevent workgroup discrimination in an increasingly virtual workplace. Most prior work on inclusive leadership has been theoretical, but there are a few empirical studies that have examined the impact of inclusive leadership on performance (e.g., Qi & Liu, 2017) and discrimination (e.g., Perry et al., 2020). These studies begin to show that inclusive leadership can have a positive relationship with both individual follower performance (Xiaotao et al., 2018) and group performance (Jin et al., 2016; Qui & Liu, 2017) and may even significantly help to reduce discrimination through developing workgroup inclusion (Perry et al., 2020). Despite these few studies, the empirical literature on inclusive leadership is nascent. There is still little proof of the mediating mechanisms that have been theorized to allow inclusive leaders to produce favorable outcomes. In addition, there is some evidence that the impact of inclusive leadership may not be as straightforward as it has been theorized. For example, effects may be different for racial minorities versus white employees (Jin et al., 2016) and it may cause a "too-much-of-a-good-thing" effect (Pierce & Aguinis, 2013) where the most favorable outcomes are

observed when inclusive leadership is moderate not very low or very high (Xiaotao et al., 2018). Finally, prior theoretical and empirical work lacks an understanding of how the work environment influences how leaders develop inclusion in workgroups. The current study aims focus on these gaps by addressing the following research questions:

Research Question 1: *To what extent does virtuality help and/or hinder inclusive leadership in fostering follower performance? Does the impact of virtuality on the ability of inclusive leadership to improve follower performance depend on the specific dimension of virtuality examined?*

Research Question 2: *In addition to improving performance, does inclusive leadership reduce discrimination in workgroups? If so, what are the underlying processes in the relationship between inclusive leadership and discrimination?*

Research Question 3: *To what extent does virtuality help and/or hinder inclusive leaders in reducing discrimination among their followers? Does the impact of virtuality on the ability of inclusive leadership to address follower discrimination depend on the specific dimension of virtuality examined?*

Level of Analysis and Key Variables

To begin to address these questions, the current study focuses on individual employee experiences. Inclusive leadership is examined in terms of individuals' perceptions of their direct supervisor, "a non-cognitive construct, tapping employees' self-reports of past experience with their manager's inclusive leadership behaviors" (Li, 2021, p. 24). Inclusive leadership is a behavioral style that is meant to be applied in a group setting; however, inclusive leader behaviors can have differential effects on individual group members. The purpose of inclusive leadership is to meet each individual

follower's needs for belongingness, uniqueness, and authenticity, all of which require the social dynamics provided by the group environment. Thus, while the current study is focused on the individual-level experience of inclusion, individual perceptions of their group are an essential piece of the puzzle.[1]

To study the expected performance benefits of inclusive leadership, I examine the extent to which inclusive leadership predicts individual follower task performance and helping behavior and whether these relationships can be explained by individuals' level of identification with their workgroup. To explore the discrimination reducing effects of inclusive leadership, I examine the extent to which inclusive leadership predicts individual followers' perceptions of the level of discrimination in their workgroup and whether this relationship can be explained by individuals' perceptions of the level of inclusion in their workgroup.

To explore the impact of virtuality on these processes, the current study assesses both leader-follower virtuality and workgroup virtuality. I consider workgroup virtuality as the extent of dispersion and technology dependence between workgroup members, excluding the leader. This will allow for a focus on the individual respondent's work experience in reference to their workgroup in addition to their own unique experience with their leader (i.e., leader-follower virtuality). While workgroups could be characterized by some aggregate of each members' unique relationship with the leader, these variables are not examined. Instead, the virtuality in individuals' relationships with their workgroup are considered as a contextual factor in how individuals see their workgroup (not how individuals see their leader's relationship to their workgroup). The

[1] The primary focus of this study is individual level experiences, and thus all group level variables are captured as individual perceptions of their workgroup except for objective dispersion.

virtuality in individuals' relationships with their leader are considered as a contextual factor in how individuals see their leader and how that leader acts towards all group members.

The following sections develop two theoretical models that aim to address the three overarching research questions, one to test the effect of inclusive leadership on follower performance, and a second to test the effect of inclusive leadership on workgroup discrimination.

Theoretical Framework and Hypotheses[2]

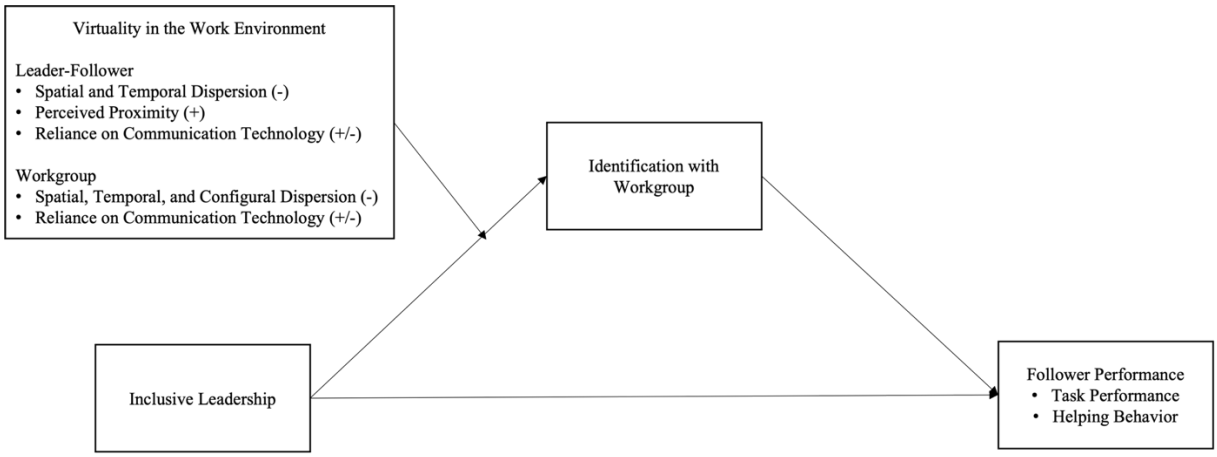
As stated above, I define inclusive leadership as a behavioral style in which leaders intentionally work to meet their followers' needs for belonging, uniqueness, and authenticity (Jansen et al., 2014; Shore et al., 2011) while acting as a role model for inclusive workplace behavior (Randel et al., 2018). I expect inclusive leadership to not only produce the positive performance effects hypothesized in the literature, but I also expect inclusive leadership to combat the negative effects of workforce diversity. This proposition is based on a combination of theoretical perspectives. First, the idea that inclusive leadership promotes follower performance is based on previous adaptations of social psychology and human motivational theories (see Li, 2021), including optimal distinctiveness theory (see Shore et al., 2011) and self-determination theory (see Jansen et al., 2014), which defined inclusive leadership as meeting follower needs. Second, the proposition that inclusive leadership reduces workgroup discrimination builds on Randel et al.'s (2018) definition of inclusive leadership and applies Brown et al.'s (2005) social learning theory of ethical leadership to explain how inclusive leaders act as role models

[2] Appendix A provides a full list of hypotheses for easy reference.

of inclusivity and inspire the development of workgroup inclusivity which then prevents discrimination. Finally, I draw on theories of virtual teams and e-leadership to examine the effects of inclusive leadership within the context of virtual work. The following sections develop hypotheses about how inclusive leadership not only improves follower performance (see Figure 1) but also reduces workgroup discrimination (see Figure 2), and how aspects of virtual work environments can help or harm these processes.

Figure 1

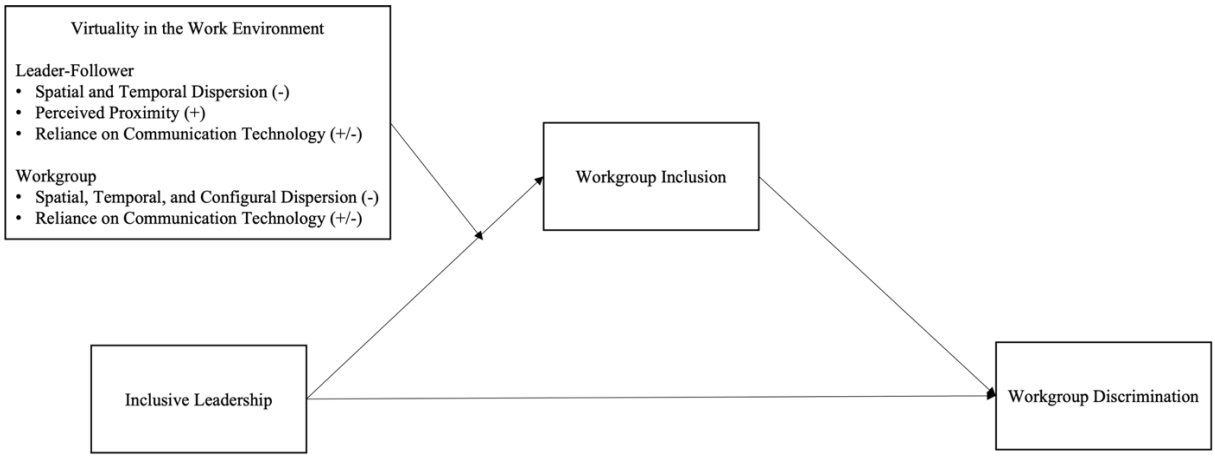
Conceptual Model of Virtual Work and the Effects of Inclusive Leadership on Follower Performance



Note. Moderating variables include (-) to indicate they are hypothesized to weaken the relationship and/or (+) to indicate they are hypothesized to strengthen the relationship.

Figure 2

Conceptual Model of Virtual Work and the Effects of Inclusive Leadership on Workgroup Discrimination



Note. Moderating variables include (-) to indicate they are hypothesized to weaken the relationship and/or (+) to indicate they are hypothesized to strengthen the relationship.

Inclusive Leadership and Follower Performance

Prior theory suggests the practice of inclusion improves job performance by encourage the reciprocation of inclusive treatment, which makes organizational members feel more empowered and connected to their coworkers (Randel et al., 2018). Both task-related and contextual pro-social performance outcomes have been discussed as outcomes of inclusion (see Shore et al., 2011). The current study examines both sides of follower performance, including task performance and helping behavior, a type of organizational citizenship behavior directed towards others. As proposed by Randel et al. (2018) and based on optimal distinctiveness theory (ODT; Brewer, 1991), I expect that inclusive leadership is positively related to follower performance indirectly through workgroup identification. Membership in a social group (e.g., the team you are assigned to work with) does not inherently lead to identification with that group (i.e., the group

membership is not necessarily integrated into all members social identities). However, according to ODT, all individuals possess the universal need for optimal distinctiveness and when group membership meets this need the individual will be motivated to maintain the affiliation and integrate it into their social identity.

I argue that by upholding organizational standards for inclusion and acting as a role model of inclusivity, inclusive leaders work to meet their followers needs for belonging, uniqueness, and authenticity via workplace relationships and groups, and when employees' inclusion needs are being met at work (i.e., high inclusive leadership), they are more likely to identify more with their workgroup as a result. Such workgroup identification drives performance because members "experience the successes and failure of the workgroup as their own" (Randel et al., 2018, p. 9) and thus are motivated to contribute to their group's success. While these theoretical arguments have been generally accepted in the inclusion literature (see Randel et al., 2018), there is little supporting empirical evidence. This study will test these relationships empirically.

Hypothesis 1: *Follower perceptions of inclusive leadership will be positively related to their (a) task performance and (b) helping behavior.*

Hypothesis 2: *Workgroup identification mediates the relationships between follower perceptions of inclusive leadership and their (a) task performance and (b) helping behavior.*

The Moderating Role of Virtual Work. Prior work highlights the importance of considering leadership in context or the "situational opportunities and constraints that affect the occurrence and meaning of organizational behavior as well as functional relationships between variables" (Johns, 2006, p. 386). Virtuality is one important factor

that contributes to the larger context in which leadership is performed (Larson & DeChurch, 2020). Given the "consensus among scholars that virtual teams are more difficult to lead than face-to-face teams" (Hoch & Kozlowski, 2014, p. 391), leadership research must consider how virtuality challenges the leadership process and how leaders might best meet these challenges (Larson & DeChurch, 2020). I expect the strength of the relationship between inclusive leadership and follower performance to vary depending on virtuality in the work environment such that inclusive leadership is more or less successful in improving follower performance depending on virtual work characteristics.

Other leadership styles have been examined in a virtual work context. For example, transformational leadership has been found to be better suited than transactional leadership for promoting teamwork and performance in virtual teams (e.g., Andressen et al., 2021; Purvanova & Bono, 2009; Whitford & Moss, 2009). Similar effects have been found for empowering leadership in a virtual team context (e.g., Arnold et al., 2000; Hill & Bartol, 2016; Srivastava et al., 2006). Theoretically, the behaviors that define the inclusive leadership style are distinct from those that define transformational leadership. The goal of transformational leadership is to motivate and develop high performing followers through charisma, rigorous goal setting, and the challenging of norms and assumptions (Avolio & Bass, 1995). In contrast, the goal of inclusive leadership is to improve performance by meeting followers needs for belongingness, uniqueness, and authenticity, which requires valuing unique contributions and identities not challenging them (Randel et al., 2018). Empowering leadership is more like inclusive leadership than transformational leadership, but it is still a distinct style. Both empowering leaders and inclusive leaders encourage followers to participate in decision making and problem solving, but their reasoning for such behaviors are very different. Empowering leaders aim to delegate

authority and promote self-directed work, whereas inclusive leaders aim to facilitate diverse contributions and shared authority. Empowering leadership may inadvertently aid inclusion, but it is not the goal. In addition, inclusive leadership has additional components that are not included in the empowering leadership style such as addressing followers' needs to feel connected to others, preserve a distinctive sense of self, and behave in accordance with one's authentic self. The evidence that both empowering leadership and transformational leadership are well suited for leading virtual teams is promising; however, it does not provide much insight into the effects of virtuality on inclusive leadership.

To explore the extent to which the virtuality of a work environment helps and/or hinders the performance benefits of inclusive leadership, I focus on the challenges of objective dispersion (O'Leary & Cummings, 2007) and reliance on communication technology (Daft & Lengel, 1986; Daft & MacIntosh, 1981) as well as the benefits of perceived proximity (Antonakis & Atwater, 2002; O'Leary et al., 2014). I examine these effects regarding how individuals work with both colleagues in their workgroup in general and their leaders specifically.

Objective Dispersion. I posit that objective distance between individuals and their colleagues weakens the effects of inclusive leadership on followers' workgroup identification, because inclusive behaviors are more impactful face-to-face than they are when employees work at a distance from their leader and their workgroup. Dispersion does not necessarily make adopting an inclusive leadership style more or less likely. Technically, leaders can use an inclusive leadership style, uphold their organization's norms and standards for inclusion, and develop inclusion in their workgroups in both

highly dispersed and face-to-face environments. However, I posit that when objective distance is higher, the impact of inclusive leadership on followers' workgroup identification will be weaker, because dispersion fundamentally changes the work environment by reducing the availability of social cues (i.e., non-verbal communication that informs how individuals interpret and react to others) and the efforts of leaders to enact inclusive leadership will be less necessary and salient. While the need for belongingness and authenticity that inclusion satisfies are assumed to be universal in that every individual has some need (Schutz, 1958), these needs must be met in a social context. I posit that the greater availability of social cues in face-to-face environments create more social situations where there is a greater need for inclusion. In contrast, I expect more dispersed environments to provide less access to social cues and create an equalization effect (Ocker, 2007) such that there is less of a need for inclusion.

While the general level of dispersion challenges the inclusive leadership process, there may be important distinctions between different types of dispersion in the work environment. Dispersion in the work environment can result from distance in temporality and/or location (Raghuram et al., 2019). For example, some individuals may work at a distance from their leader but not their workgroup while others may be member of a dispersed workgroup but happen to be collocated with their leader. At the very extreme end of the spectrum, individuals may be physically isolated from both their leader and workgroup (e.g., work from home). When workgroups have some isolated and some collocated members, configural dispersion becomes an important component of the work environment. Furthermore, locational dispersion can come with time zone differences

that make it less likely group members work the same hours or communicate using synchronous media such as video conference calls or telephone conversations.

To examine how dispersion moderates the relationship between inclusive leadership and workgroup identification, I examine spatial and temporal dispersion between individuals and their leader and the level of spatial, temporal, and configural dispersion that characterizes one's workgroup. Working across physical and temporal distance from one's leader and/or workgroup makes opportunities to experience inclusion face-to-face less frequent and increases reliance on leaner virtual environments where it is more difficult to discern social cues. However, I posit that dispersion has a unique effect on the inclusive leadership process that is distinct from the impact of reliance on technology. I argue that inclusive leaders promote workgroup identification by meeting their followers needs for inclusion in the context of their workgroup, but when individuals feel isolated from their leader these attempts are less influential. Specifically, I predict that locational and temporal distance from one's leader weakens the impact of inclusive leadership on the extent to which followers identify with their workgroup, because leader-follower dispersion isolates individuals from their leader, which reduces the extent to which they observe their leader in social situations (e.g., in interactions with the workgroup) and with less social situations there is a reduced need for inclusion. In contrast, when location and temporal distance from one's leader is lower and followers are more collocated with their leader, they have a great need for inclusion and thus inclusive leadership is a more impactful predictors of workgroup identification.

Hypothesis 3: *The positive relationship between inclusive leadership and follower workgroup identification will be negatively moderated by objective*

dispersion between leaders and followers such that inclusive leadership has but a stronger effect follower workgroup identification when there is less objective distance between individuals and their leader, but a weaker effect on follower workgroup identification when there is more objective distance between individuals and their leader.

Similarly, I predict that spatial, temporal, and configural dispersion one's workgroup weakens the impact of inclusive leadership on the extent to which followers identify with their workgroup, because workgroup dispersion isolates individuals from their workgroup and changes the nature of how inclusion is observed and performed in the context of one's workgroup. Isolation from workgroup members reduces the frequency and richness of shared social experiences and thus there is less of a need for inclusion, which makes inclusive leadership is a less impactful predictors of workgroup identification. In contrast, when location, temporal, and configural distance in one's workgroup is lower and followers are more collocated with their workgroup, there is a greater need for inclusion and thus, inclusive leadership has a stronger impact on workgroup identification.

Hypothesis 4: *The positive relationship between inclusive leadership and follower workgroup identification will be negatively moderated by workgroup dispersion such that inclusive leadership has a weaker effect on follower workgroup identification when there is more objective distance between workgroup members, but a stronger effect when there is less objective distance between workgroup members.*

Leader-Follower Subjective Dispersion. Prior research indicates that "people can form strong bonds despite being separated by large distances" (O'Leary et al., 2014, p. 1221). Thus, there may be an important subjective side to dispersion that helps counteract the challenges of objective dispersion. I consider the impact of subjective dispersion on the inclusive leadership process by examining individual differences in subjective perception of proximity to one's leader. I expect the effects of inclusive leadership on followers' workgroup identification to be weaker when employees feel far away from their leader but stronger when employees feel closer to their leader (regardless of the objective distance between their work sites), because subjective proximity makes inclusive leaders more likely to be seen as role models for inclusion. According to social learning theory (Bandura, 1977), role model behavior (e.g., inclusive leader behavior) is more likely to be repeated by observers when that role model is seen as an attractive informant. I posit that feeling more proximal to one's leader (high perceived proximity) makes it more likely that a leader is seen as an attractive role model and thus higher perceived proximity makes an inclusive leader's attempts to role model inclusion more impactful. In contrast, I expect that when individuals feel farther away from their leader (low perceived proximity), it is less likely that the leader is seen as an attractive role model and thus less likely that any attempts to role model inclusive behaviors will be less impactful and thus inclusive leadership will be less likely to lead to workgroup identification.

Hypothesis 5: *The positive relationship between inclusive leadership and follower workgroup identification will be positively moderated by a follower's perceived proximity to their leader such that inclusive leadership has a stronger*

effect on follower workgroup identification when perceived proximity is higher (there is less subjective distance between leader and follower), but a weaker effect when perceived proximity is lower (there is more subjective distance between leader and follower).

Reliance on Communication Technology. Use of communication technology has become ubiquitous in today's workplace. Regardless of dispersion, employees across different work arrangements (e.g., collocated in an office, working from home) tend to rely on electronic media or computer-mediated communication (CMC) to interact with colleagues at least some of the time. While CMC allows for collaboration despite dispersion, it also poses challenges for the leadership process (Hoch & Kozlowski, 2014; Larson & DeChurch, 2020). I propose that reliance on CMC to communication with one's leader and workgroup weakens the impact of inclusive leadership. Leaders can perform inclusive behaviors in their interactions with followers both face-to-face and when using CMC; however, I expect that the reduced availability and interpretability of social cues in CMC weakens the impact of inclusive leader behaviors.

Specifically, more reliance on CMC rather than face-to-face meetings with one's leader begets less opportunities for meaningful exchanges where more social cues can be communicated between leaders and followers. When inclusive leader behaviors are observed more frequently in lean environments with less social cues, the leader's attempts to meet followers needs for inclusion are less influential. While employees may see their leader being inclusive despite relying on CMC, limited face-to-face experiences creates a barrier to developing a deeper relationship that meets followers needs for

inclusion and promotes the collective sense of inclusive that encourages workgroup identification.

Hypothesis 6: *The positive relationship between inclusive leadership and follower workgroup identification is negatively moderated by reliance on electronic media to communicate with one's leader such that inclusive leadership has a stronger effect on workgroup identification when leaders and follower communicate via electronic media relatively less frequently than when leaders and follower communicate via electronic media relatively more frequently.*

In addition, the extent to which individuals rely on CMC to communicate with their workgroup is expected to weaken the impact of inclusion on workgroup identification. The lack of social cues in CMC makes workgroup members' responses to inclusive leadership less salient and prevents the development of collective inclusion which is expected to promote the feelings of belongingness that lead to workgroup identification. In contrast, less reliance on CMC and more frequent use of face-to-face meetings allows for more meaningful exchanges between workgroup members which facilitates the development of collective inclusion and thus promotes workgroup identification.

Hypothesis 7: *The positive relationship between inclusive leadership and follower workgroup identification is negatively moderated by reliance on electronic media to communicate with one's workgroup such that inclusive leadership has a stronger effect on workgroup identification when individuals rely on electronic media relatively less frequently than when they communicate with their workgroup via electronic media relatively more frequently.*

Inclusive Leadership and Workgroup Discrimination

One of the main goals of studying inclusive organizational practices is to work against the implicit biases that jade all individuals and combat discrimination and harassment in the workplace. However, the empirical research on inclusive has mostly focused on how diversity can be managed to improve performance not to avoid discrimination (see Shore et al. [2018] for a recent review). While much of this work describes the performance benefits of diversity as a way to celebrate and promote the positive aspects of diversity, the inclusion literature has yet to fully address how inclusion can help address discrimination. This leaves a significant gap in our understanding of the inclusion process. As Ferdman (2014) notes,

> "Focusing on inclusion not only allows doing diversity work that emphasizes reducing negative and problematic processes—such as those grounded in prejudice, discrimination, and oppression—but also fosters a positive vision of what might replace those undesired behaviors, policies, and systems" (p. 11).

The gap between the theory that inclusion can help address discrimination in the workplace versus the existing empirical evidence is particularly wide in the inclusive leadership literature, where very little is known about whether inclusive leadership reduces discrimination. Theoretically, to be an inclusive leader of multiple followers requires recognition of the many social categories that contribute to diversity and the relevant histories of oppression that defines each category. Unfortunately, prior studies of inclusive leadership have provided very little information about what is necessary for leaders to address this negative side of diversity. One recent exception is Li's (2021) measurement development work which addresses the goal of reducing discrimination via

inclusion by adding a sub-dimension, “manage micro inequalities and subtle discrimination” to their definition and measure of inclusive leadership. The current study builds on this work to help reduce the gap between inclusion research and practice.

I propose that the main means by which inclusive leadership helps reduce demographics-based discrimination in workgroups is by influencing the way followers conceptualize diversity via role modeling organizational values related to diversity and inclusion. Specifically, I draw on Brown et al.’s (2005) social learning theory of ethical leadership to posit inclusive leadership is essentially a special case of ethical leadership, such that is requires leading in a way that demonstrates and enforces ethical norms for inclusion in particular. Brown et al. (2005) adapted social learning theory (Bandura, 1977) to explain the ethical leadership influence process. Bandura’s (1977) social learning theory argues that people can learn new information and behaviors by observing other people engage in those behaviors (e.g., Bandura’s famous Bobo doll experiment where he showed that children imitate behaviors they have observed in adults). New behaviors and ideas are learned through the process of behavioral modeling, where individuals are motivated to think and act like attractive, trustworthy role models. In an organizational context, leaders are often seen as role models, which explains why, for better or for worse, followers often perform behaviors they observe in their leaders. Brown et al. (2005) argue that ethical leaders are not only moral persons high in integrity, honesty, and trustworthiness who act in accordance with ethical standards and make ethical decisions, but they are also moral managers who serve as role models for ethical behaviors through visible action, use of rewards and discipline to enforce ethical rules, and by actively communicating ethics and values to followers.

I expect inclusive leadership works in a similar way as ethical leadership such that inclusive leaders intentionally work to meet their followers' needs for belonging, uniqueness, and authenticity while upholding organizational standards for inclusion and acting as a role model of inclusivity to both promote the positive and combat the negative effects of workforce diversity. Just as ethical leaders inspire ethical behaviors in their followers (Brown & Treviño, 2014), I propose that inclusive leaders inspire inclusive behaviors in their followers, which promotes workgroup inclusion and reduces discrimination. Specifically, I expect inclusive leadership to reduce discriminatory behavior between workgroup members by (a) serving as attractive and trustworthy role models of anti-discriminatory values and (b) intentionally working to reframe social differences as sign of authenticity that are to be respected and nurtured. As a results, workgroup members are less likely to engage in workgroup discrimination because they adopt the inclusive behaviors learn from their leaders, which leads to more inclusive workgroups. These effects are examined with a focus on individual group member perceptions of the extent to which their leader exhibits an inclusive leadership style, and how those perceptions are related to perceptions of workgroup-level inclusion and discrimination, including the actions observed between other group members and experienced from other members against themselves. I expect individuals that see their leader as highly inclusive are more likely to see their workgroups as highly inclusive and therefore report lower levels of discrimination.

Hypothesis 8: *Follower perceptions of inclusive leadership will be negatively related to workgroup discrimination.*

Hypothesis 9: *The relationship between follower perceptions of inclusive leadership and workgroup discrimination is mediated by workgroup inclusion.*

The Moderating Role of Virtual Work. There are two competing theories in the literature that seek to explain discriminatory behavior in virtual environments. From one perspective, the reduction of social cues in virtual environments reduces bias by making stereotypical information less salient (e.g., a women's stereotypically feminine mannerisms are less observable in a video chat conversation as compared to a face-to-face meeting). In other words, virtuality is believed to provide an equalization effect that levels the playing field and makes discriminatory behavior less likely (Ocker, 2007). The contrasting perspective (e.g., the social identity model of deindividuation effects: SIDE; Dubrovsky et al., 1991) posits that by reducing the availability of social cues, virtuality forces individuals to rely more on the little information they have about others (e.g., names, voices), and because the information available in leaner environments often implies demographic information such as gender, race, and age, virtuality increases the likelihood of discriminatory behavior. Unfortunately, prior research has not yet resolved this debate, and instead, it seems like virtual work produces a doubled-edge sword for diversity-related issues. Under more virtual conditions, discrimination is expected to be *more likely* because individuals have less access to information about their communication partners and thus are apt to rely on stereotypes when developing attitudes towards them (i.e., deindividuation) but increased virtuality is also expected to make discrimination *less likely* because the options for displaying harmful language and behaviors are limited (i.e., equalization).

I posit that inclusive leadership makes the deindividuation benefits proposed by equalization theory less likely but can help reduce the reliance on stereotypes proposed by deindividuation theory. The goal of inclusive leadership is not to make it impossible for individuals to enact discrimination (i.e., why equalization reduces discrimination). Instead, inclusive leaders are focused on changing people's beliefs in a way that prevents discrimination. They empower subordinates to celebrate their uniqueness and develop a sense of belonging in the workgroup despite their differences. By increasing the salience of diversity (meeting needs for uniqueness), inclusive leadership may reduce the likelihood of deindividualization in virtual environments, which removes a potential buffer against discrimination. However, by encouraging self-disclosure and participation (meeting needs for belonging), inclusive leaders highlight individual differences which may also reduce the likelihood of equalization in virtual environments.

The extent to which the virtuality of a work environment helps and/or hinders the utility of inclusive leadership for reducing workgroup discrimination is explored in a similar manner to above in the study of inclusive leadership and follower performance. Again, I focus on the challenges of objective dispersion (O'Leary & Cummings, 2007) and reliance on communication technology (Daft & Lengel, 1986; Daft & MacIntosh, 1981) as well as the benefits of perceived proximity (Antonakis & Atwater, 2002; O'Leary et al., 2014).

Dispersion. Both objective and subjective dispersion pose a problem for inclusive leaders efforts to develop the workgroup inclusion and reduce workgroup discrimination. When individuals are more dispersed across space and time (higher objective dispersion) and feel farther away (lower perceived proximity) from their leaders, it is likely that

inclusive leaders' attempts to role model inclusive behaviors will impact on follower behaviors. In addition, when individuals are more dispersed from their workgroups, there are less opportunities for the workgroup members to replicate leaders' inclusive behaviors and to develop the inclusive processes encouraged by an inclusive leader. As described above, dispersion does not necessarily make inclusive leadership nor workgroup inclusion more or less likely. Leaders can adopt an inclusive leadership style and workgroups can develop inclusion in both face-to-face and virtual environments. However, when individuals are physically isolated from both their leader and/or other workgroup members, inclusive leaders are forced to adapt their behavior to role model inclusion from a distance. I expect that inclusive leadership adapted for dispersed work environments is a weaker predictor of workgroup inclusion, because it is harder to discern. For example, when employees work at a distance, there are less opportunities for them to observe how their leader treats other workgroup members, which then makes it less likely that workgroup members will observe each other replicating inclusion and thus prevents the development of a collective sense of inclusion. In contrast, I expect inclusive leadership to be a weaker predictor of workgroup discrimination when leader-follower dispersion and workgroup dispersion are high because there are less opportunities for the leader to notice and respond to discrimination at the individual- and group-level respectively.

> **Hypothesis 10:** *The positive relationships between inclusive leadership and (a) workgroup inclusion and (b) workgroup discrimination will be negatively moderated by objective dispersion between leaders and followers such that inclusive leadership has a weaker effect on (a) workgroup inclusion and (b)*

workgroup discrimination when there is more objective distance between leader and follower, but stronger effects when there is less objective distance between leader and follower.

Hypothesis 11: *The positive relationships between inclusive leadership and (a) workgroup inclusion and (b) workgroup discrimination will be negatively moderated by workgroup dispersion such that inclusive leadership has weaker effects on (a) workgroup inclusion and (b) workgroup discrimination when there is more objective distance between workgroup members, but stronger effects when there is less objective distance between workgroup members.*

In addition to the objective side of dispersion, I expect subjective distance from one's leader to challenge the inclusion process and make inclusive leadership less influential for workgroup inclusion and discrimination. When individuals feel farther away from their leader, they are less likely to see their leader as an attractive and trustworthy role model which interrupts the development of workgroup inclusion. In addition, feeling far away from one's leader likely makes followers less comfortable in asking their leader for help with discrimination issues and reduces the ability of inclusive leaders to help prevent and address discrimination in the workgroup.

Hypothesis 12: *The positive relationships between inclusive leadership and (a) workgroup inclusion and (b) workgroup discrimination will be positively moderated by a follower's perceived proximity to their leader such that inclusive leadership has a stronger effect on (a) workgroup inclusion and (b) workgroup discrimination when perceived proximity is higher (there is less subjective distance between leader and follower), but weaker effects when perceived*

proximity is lower (there is more subjective distance between leader and follower).

Reliance on Communication Technology. More reliance on CMC rather than face-to-face meetings is expected to challenge the inclusive leadership process. When employees interact with their leader more using CMC than in face-to-face meeting, there are fewer social cues available to support the inclusive leadership role modeling process (e.g., highlighting the value in each followers uniqueness) that is expected to develop workgroup inclusion. In addition, reduced social cues likely makes it harder for the leader to discern and respond to discrimination.

Hypothesis 13: *The positive relationships between inclusive leadership and (a) workgroup inclusion and (b) workgroup discrimination will be negatively moderated by reliance on electronic media to communicate with one's leaders such that inclusive leadership has a stronger effect on (a) workgroup inclusion and (b) workgroup discrimination when leaders and follower communicate via electronic media relatively less frequently than when leaders and follower communicate via electronic media relatively more frequently.*

When individuals rely more heavily on CMC to interact with their workgroup, they observe fewer social cues from other group members which makes inclusion harder to discern and thus a collective sense of inclusion less likely. In addition, when workgroups interact more virtually than face-to-face, inclusive leaders attempts to implement diversity and inclusion initiatives that prevent discrimination will be less impactful due to the lack of social cues.

Hypothesis 14: *The positive relationships between inclusive leadership and (a) workgroup inclusion and (b) workgroup discrimination will be negatively moderated by reliance on electronic media to communicate with one's workgroup such that inclusive leadership has a stronger effect on (a) workgroup inclusion and (b) workgroup discrimination when workgroups communicate via electronic media relatively less frequently than when workgroups communicate via electronic media relatively more frequently.*

Chapter 2: Method

Procedure

Survey Platform and Recruitment Tool

A questionnaire was built using the Qualtrics survey platform. Participants were recruited from Amazon's Mechanical Turk (MTurk), an online marketplace that allows researchers to provide modest monetary compensation in exchange for participation in online surveys. MTurk is a widely used "e-lancing" tool that has become increasingly popular among organizational researchers, partially because it allows access to participants from a broader range of jobs and organizations compared to university or organizational sample (Aguinis & Lawal, 2012; Landers & Behrend, 2015). A link was posted on MTurk that redirected participants to the Qualtrics survey. Appendix C shows the information MTurk Workers saw before clicking on the post (i.e., the MTurk posting) and once they clicked on the post (i.e., survey link instructions). The questionnaire was estimated to take approximately 30 minutes to complete[3]. Based off the current federal minimum wage of $7.25 per hour and current MTurk trends, participants that met minimum qualifications were paid $3.50 for completing the survey.

Ensuring Data Quality

There are various benefits of using MTurk to recruit research participants; however, this online platform can be sensitive to several threats to validity. Some of these threats are also common in more traditional data collection methods (e.g., inattention, self-misrepresentation, self-selection bias, high attrition, social desirability bias), while

[3] Participants took 21.87 minutes on average (*SD* = 14.77).

others pose unique challenges (e.g., inconsistent English language fluency, non-naivete, growth of MTurker communities, vulnerability to web bots, perceived researcher unfairness). Despite these challenges, MTurk was deemed an appropriate method for testing the current study hypotheses, because it provides access to thousands of U.S. adults from a variety of backgrounds, and I aimed to collect a sample of fulltime workers from a wide range of industries and work environments with variability in the level of virtuality. Control variables were added to the questionnaire to test the validity of my assumptions about the appropriateness of an MTurk sample (see Measures section).

Recommended steps were taken to minimize threats to validity and ensure data quality at each stage of the research process (e.g., Aguinis et al., 2020; Cheung et al., 2017; Harms & DeSimone, 2015). Qualifications were used to screen MTurkers interested in participating to prevent self-misrepresentation, inconsistent English language fluency, and errors due to inattention or attrition, including using only participants who were in the U.S, had an MTurk approval rate greater than 90%, and had previously completed more than 500 MTurk tasks (Sheehan & Pittman, 2016). Once I launched the study on MTurk, I monitored responses in Qualtrics, responded to participants concerns via email, and gauged MTurkers reactions to the study by skimming online MTurker forums such as the Turker Nation reddit (see https://www.reddit.com/r/TurkerNation/) and the MTurk Crowd website (see https://www.mturkcrowd.com/)[4]. Responses were "approved" within 48 hours of the MTurker completing the study. No responses were "rejected" as all participants met the basic eligibility criteria (were 18 years or older, resided in the United States, had worked

[4] I couldn't find any mention of my survey on either forum.

for at least 1 month in a position that is full-time, and belonged to a workgroup with a primary manager to whom they reported) and completed (i.e., made it to the last page) the survey. Random identification numbers were created by the Qualtrics survey platform such that each participant was provided with a unique number on the last page of the survey. Participants were asked to copy-and-paste this number into the MTurk HIT form before submitting. One participant was removed for entering a duplicate random ID number.

Once the target amount of data had been collected, it was screened for issues of inattention and carelessness based on self-report, survey completion time, and the long-string index (Aguinis et al., 2020). Three attention check items (i.e., questions with a clear correct answer; e.g., "Please select agree.") were added throughout the questionnaire to help identify inattention and careless responding that is both random and nonrandom (Meade & Craig, 2012). Most participants (89.60%) correctly answered all three attention checks. The 20 participants who missed just one out of the three checks were retained to allow for the largest sample size possible, but the 3 participants that missed all three checks were removed. Using a best practice of removing participants who spent less than 1 or 2 seconds per item (Aguinis et al., 2020), participants who took less than 219 seconds ($N = 2$) or 438 ($N = 6$) seconds on the survey should be removed. I chose to remove only the 2 participants who took less than 1 second per item given that those flagged for taking less than 2 seconds per item chose not to answer large parts of the survey. Finally, I used Yentes and Wilhelm's (2021) careless package in R to calculate the longstring index for each participant, which provides the length of the

longest consecutive string of identical responses given by a participant.[5] While consecutive strings could sometimes be reasonably expected, excessive "straight-lining" is typically considered an indication of careless responding. There is no universal best practice cut-off value for the longstring index; however extreme scores can be identified through outlier analysis. By observing the distribution of longstring index scores in the current sample, it appears that there are some outliers. The minimum longstring was 3 and the maximum was 9. Most participants (81.80%) scored either 4 or 5, making the average longstring 5.16 (*SD* = 1.63). About one fifth of the sample scored 6, 8, or 9 including 30 participants with scores more than 2 standard deviations above the mean. However, when standardized into the z-scores no participants fell outside of the -3.29 to 3.29 range. Thus, all responses were retained to maximize the sample size. In sum, these efforts resulted in the removal of 6 observations, leaving 97.60% of the total 250 recruited.

Sample

A total of 244[6] adults (at least 18 years old) who were currently employed full-time (35 hours or more per week) in a job where they belong to a workgroup with a manager were retained for the final sample. Some eligibility criteria were set using the functionality provided by Amazon Mechanical Turk, including that all participants were over the age of 18, reside in the United States, and currently work full-time (i.e., 35 hours or more per week). In addition, participants were asked to self-report that they belonged

[5] Longstring index was used instead of the even-off consistency index because scale items were randomly ordered (Meade & Craig, 2012).

[6] A post hoc power analysis for linear multiple regression with the sample size of 244 was conducted using the software package, G*Power 3.1 (Faul et al., 2007). With a total of 10 predictors (independent variable, moderator, and eight control variables) and alpha level of .05, the sample is expected to provide less than adequate power (.49) for a small effect size (f^2 = .02, power = .49), but adequate power for moderate effect sizes (f^2 = .15, power = .99) and large effect sizes (f^2 = .35, power = 1.00).

to a workgroup and report to a manager that manages that workgroup. On average, participants had 22.57 years of full-time work experience, 9.92 years of management experience, been at their current job for 3.60 years (90.60% had the same job since before the COVID-19 pandemic began in March 2020), working in their current workgroup of about 6.43 members for 3.52 years, and working with their current leader for 3.55 years. The sample was 59% male and 41% female, 37.97 years old on average, and mostly college graduates including those that had earned a graduate degree (17.60%), bachelor's degree (58.60%), and associate degree (9%)[7]. Most participants (80.70%) identified as White, but the sample also includes those who identify as Asian or Asian American (6.10%), Black or African American (4.10%), Hispanic or Latina/o/x (4.50%), and other races/ethnicities (0.40%)[8]. Most participants (90.20%) identified as straight or heterosexual and the other 9.80% of the sample indicated their sexual orientation as LGBT+ or other. Participants were asked whether they felt like a minority in their workgroup, and interestingly, despite the sample being mostly White (80.70%) and straight/heterosexual (90.20%), almost one third (32%) reported feeling like a minority in the context of their workgroup.

Measures

Variables were captured using an online questionnaire composed mostly of established scales. Given that, theoretically, some of these variables can be conceptualized at the different levels (individual, dyad, or group), care was taken to ensure the proper referent. Appendix D provides a list of all full scales and, if applicable, how they have been adapted for use in the current study.

[7] Education data was missing for 1 participant.
[8] Race/ethnicity data was missing for 10 participants.

Inclusive Leadership

Participant perceptions of their manager's level of inclusive leadership were measured using Li's (2021) 25 item Inclusive Leadership Questionnaire (ILQ; see also Perry & Li, 2020). Items are rated on a scale from *almost never* (1) to *almost always* (5). The ILQ is meant to measure four, theory-based dimensions of inclusive leadership: (a) Providing equal opportunity and fair treatment to all work unit members (e.g., "My manager treats everyone in the work unit fairly."); (b) Encouraging integration of and synergy among all work unit members (e.g., "My manager listens to all work unit members with respect."); (c) Directly addressing work unit members' fundamental needs for uniqueness, authenticity, and belongingness (e.g., "My manager encourages work unit members to be their authentic selves."); and (d) Implementing organizational diversity and inclusion related policies and programs in the work unit (e.g., "My manager implements organizational diversity and inclusion programs in the work unit."). However, Li (2021) concluded based on exploratory factor analyses that the scale captures only three factors: (a) Inclusive leadership behaviors at the individual-level that treat all work unit members with fairness, equality, and respect (including items from the first, second, and third theoretical dimensions above); (b) Inclusive leadership behaviors at the team-level that encourage integration of and synergy among all work unit members (including items from the second and third theoretical dimensions above); and (c) Inclusive leadership behaviors that explicitly enact diversity and inclusion in the work unit (including items from the first and fourth theoretical dimensions above). The distinction between factors one and two based on level (individual vs. team) is theoretically fuzzy as all items in the scale refer to the managers actions towards the

group in general or to all group members; however, the distinction between the three factors based on the focus of the manager's behavior (fairness, equality, and respect vs. encouraging integration and synergy of ideas or voices vs. actively and intentionally practicing diversity and inclusion) does seem to match the item content. These issues were examined in the current sample to determine adequate measurement model fit.

First, exploratory factor analysis (EFA) was conducted with the psych package in R (Revelle, 2022) to determine the factor structure of the ILQ in the current sample. Results from a EFA using a maximum likelihood model and varimax rotations suggests a three-factor solution (i.e., three factors with eigenvalues great than 1: 12.45, 1.60, and 1.06); however, 13 out of 25 items were cross-loaded such that primary loadings were not at least .20 larger than secondary loadings and the three suggested factors do not align with the either the four theoretical dimensions or three factors suggested by Li (2021). Confirmatory factor analyses (CFA) were run in R using the lavaan package (Rosseel, 2021) to examine the model fit of (a) the theoretical four-factor model proposed by Li (2021), (b) the three-factor model suggested by Li's (2021) sample, and (c) the alternative three-factor model suggested by EFA with the current sample. As shown in Table 1, CFA results suggests these three models have similarly okay fit with the data, and thus, I chose to proceed without removing items and use a four-factor model based on the original theoretical dimensions, $x^2(269) = 558.50$, $p < .01$; RMSEA = .068 (.060-.076); CFI = .971; TLI = .907; SRMR = .049).

Leader-Follower Virtuality

Spatial and Temporal Dispersion. Participants were asked to report several indicators of the degree of geographic dispersion that characterizes participants' relationships with their workgroup leader. Leader-follower locational dispersion was calculated using O'Leary and Cummings' (2007) spatial distance index (SDI) based on the driving miles separating the two work sites. Participants reported the US Postal Codes for their own work location and their leader's work location, and I coded SDI based on the shortest route suggested by Google Maps. Leader-follower SDI ranged from 0 miles to 2,858 miles (M = 54.54; SD = 288.61). Leader-follower temporal dispersion was calculated based on O'Leary and Cummings' (2007) time zone index (TZI) based on the number of time zones separating the two work sites. Using the US postal codes participants reported for their own work location and their leader's work location, I coded US state and time zone (Eastern, Central, Mountain, Pacific, or Alaskan) and then determined whether there was one or two time zones represented by the dyad. It was theorized that leader-follower locational and temporal dispersion are non-interchangeable dimensions of the higher-level construct leader-follower objective dispersion, and thus should be treated as a formative construct where the two lower-level factors cause the higher-level construct. I planned to assign each participant an overall score for leader-follower objective dispersion based on the sum of SDI and TZI; however, TZI was dropped from analyses because (a) data was missing for 188 participants (77% of the sample); and (b) of the participants that I was able to calculate leader-follower TZI, only 5 participants were temporally dispersed from their leader as most (91.10% or 20% of the sample) worked in the same time zone as their leader. Thus, due to the extreme missing data for leader-follower TZI and the issues of dimensionality, internal consistency,

identification, measurement error, construct validity, and causality presented by formative measurement (Edwards, 2011), only the SDI dimension of leader-follower objective dispersion was used in analyses.

Perceived Proximity. The extent to which participants think and feel they are proximal to their leader was captured using O'Leary et al.'s (2014) 12-item measure of perceived proximity. Participants were asked to rate their agreement from *strongly disagree* (1) to *strongly agree* (5) on items such as "I feel close to my leader" and "With regard to work, I often think about my leader" (α = .94).

Reliance on Communication Technology. To measure the general level of technology dependence in their relationship with their leader, participants were asked how frequently they communicate with their leader using a variety of mediums and the informational value or media richness provided by those mediums when communicating with their leader specifically. To capture this information, I built on O'Leary et al.'s (2014) communication scale and adapted Kirkman and Mathieu's (2005) three-dimensional model approach, where team virtuality is defined by (a) extent of reliance on virtual tools, (b) informational value, and (c) synchronicity. First, I asked participants to indicate what percentage of their work time they spend using the following mediums to communicate with their leader: (a) face-to-face meetings, (b) telephone conversations, (c) text messaging, instant message, or virtual chat, (d) discussion board discussions, (e) email exchanges, (f) video conferences, (g) social media, and (h) other. Second, to capture a subjective measure of media richness, participants were asked to indicate the relative informational value afforded by each medium by distributing a total of 100 points across the list of medium to indicate their relative value. Finally, to be able to make a

valid comparison between participants' workgroups and across mediums, a measure of the number of interactions they had with their leader in the past three months using each medium was collected. Following previous research (e.g., Hoch & Kozlowski, 2014), the extent to which individuals rely on computer-mediated communication (CMC) to communicate with their leader was calculated as the sum of relative reliance on virtual mediums divided by the sum of the extent to which all types of communication (virtual and face-to-face) were used.

Workgroup Virtuality

Spatial, Temporal, and Configural Dispersion. The degree of workgroup objective geographic dispersion was considered a formative construct informed by three factors, spatial dispersion, temporal dispersion, and configural dispersion (O'Leary & Cummings, 2007). Participants were asked to report several indicators, including (a) the number of members in their workgroup/team, (b) the number of work sites at which members of their workgroup/team typically work from, (c) the number of group members per site, and (d) the location of each work site. Spatial distance was to be calculated using O'Leary and Cummings' (2007) spatial distance index (SDI) for each participant's workgroup using the formula,

$$\frac{\sum_{i-j}^{k}(Miles_{i-j} * n_i * n_j)}{(N^2 - N)/2}$$

where $Miles_{i-j}$ = the miles between sites i and j, k = the total number of sites represented in the group, n_i = the number of group members in the ith site, n_j = the number of group members in the j^{th} site, and N = total number of group members across all sites. The higher the SDI, the more spatially dispersed the workgroup.

Temporal dispersion was to be calculated using O'Leary and Cummings' (2007) time zone index (TZI) for each participant's workgroup using the following formula,

$$\frac{\sum_{i-j}^{k}(TimeZones_{i-j} * n_i * n_j)}{(N^2 - N)/2}$$

where $TimeZones_{i-j}$ = the number of time zones between sites i and j, k = the total number of sites represented in the group, n_i = the number of group members in the i^{th} site, n_j = the number of group members in the j^{th} site, and N = total number of group members across all sites. The TZI provides a measure of how many work hours group members have during which they could communicate synchronously; thus, higher TZI indicates more temporal dispersion.

Configural dispersion was to be operationalized as the average of three indices (O'Leary & Cummings, 2007): (a) the number of sites at which group members work (site index); (b) the percent of group members with no other members at their site (isolation index); and (c) the spread of group members across sites (imbalance index), operationalized using the following formula,

$$\frac{SD\ (n_i, n_j, \ldots n_k)}{N}$$

where k = the total number of sites represented in the group/team, n_i = the number of team members in the i^{th} site, n_j = the number of group/team members in the j^{th} site, and N = total number of group/team members across all sites.

Workgroup spatial, temporal, and configural dispersion were to be combined into a high-level measure of workgroup objective dispersion. However, there were two significant problems in the data: (a) missing data and (b) participants responses about the

number of individuals in their workgroup, the number of work sites at which those members were dispersed across, and the number of members at each location were drastically unaligned for most of the sample. As an alternative to the planned measures for objective workgroup dispersion, participants were coded as working in a fully collocated (31.10% of the sample) or at least somewhat dispersed workgroup (68.90%).

Reliance on Communication Technology. To measure the general level of technology dependence in their workgroup, participants were asked how frequently they communicate with other members of their workgroup (excluding their leader) using a variety of mediums, the informational value or media richness provided by those mediums, and the count of interactions they had over each medium in the past three months (Kirkman & Mathieu, 2005; O'Leary et al., 2014). As for leader-follower reliance on CMC (see above), workgroup reliance on CMC was calculated based on the extent to which individuals used telephones, text messages/instant messages/virtual chat, discussion forums, email, video conferences, social media, or other media to communicate with their workgroup relative to the total communications including face-to-face meetings.

Identification with Workgroup

Participants' level of workgroup identification was measured with Mael and Ashforth's (1992) six item scale adapted for use in a work context as opposed to a school context. Items such as "When someone criticizes my workgroup, it feels like a personal insult" and "When I talk about my workgroup, I usually say 'we' rather than 'they'" were rated on a scale from *strongly disagree* (1) to *strongly agree* (5). International consistency was adequate (α = .83).

Follower Performance

To capture individual-level follower performance, participants were asked to self-report their task performance and helping behavior. For task performance, the following three items were created: I performed well in my job; My manager was very satisfied with my job performance; Members of my workgroup were very satisfied with my job performance. Self-reports were captured on a scale from *strongly disagree* (1) to *strongly agree* (5) and international consistency was adequate (α = .76). Podsakoff et al.'s (1990) 5-item organizational citizenship behavior measure was used to measure helping behavior. This instrument asks individuals, on a scale from *almost never* (1) to *almost always* (5), how often they engage in helping behaviors such as "Help others who have work related problems." (α = .83).

Workgroup Inclusion

Chung et al.'s (2020) 10-item scale was used to capture participants perceptions of the level of inclusion in their workgroup. This scale measures the extent to which workgroups meet members needs for belongingness (e.g., "I am treated as a valued member of my workgroup;" α = .82) and uniqueness (e.g., "People in my workgroup listen to me even when my views are dissimilar;" α = .83) on a scale from *strongly disagree* (1) to *strongly agree* (5). Confirmatory factor analysis supported a two-factor structure for the current study's sample (x^2 = 30.77 (*df* = 34, *p* >.05); RMSEA = .000 (.000-.040); CFI = 1.00; TLI = 1.00; SRMR = .025).

Workgroup Discrimination

To measure individual's perceptions of the extent to which discrimination occurs between members of their workgroup, I used a 13-item adaptation of the Schedule of

Sexist Events (SSE; Bowleg et al., 2008; Landrine & Klonoff, 1996). To capture a wide range of discrimination, items referred to "demographics" in general not any specific demographic characteristic like gender or race. Following the SSE, participants were instructed to consider the frequency in the past twelve months that they had experienced workgroup members acting discriminatory towards each other because of gender, race, age, sexual orientation, or some other demographic characteristic. For example, participants were asked about the frequency that "Members of my workgroup treated each other unfairly" on a scale from *never* (1) to *almost all of the time* (6). Internal scale reliability was adequate (α = .98).

Control Variables

Participant Individual Need for Inclusion. Theoretically, all individuals have some need for inclusion (Brewer & Roccas, 2001). However, individuals likely differ in their perceptions of inclusion at work due to differences in the level of their need for inclusion in general (Schutz, 1958). I expected individuals' own personal level of need for inclusion would be related to the extent to which they identify with their group (mediator in model 1) as well as the way they perceive inclusive leadership (predictor in both models) and workgroup inclusion (mediator in model 2). Specifically, I expected individuals with higher inclusion needs would (a) report higher identification with their workgroups and (b) be more sensitive to inclusion, resulting in reports of more extreme levels of inclusive leadership and workgroup inclusion. Participants' individual-level inclusion needs were measured using Valcke et al.'s (2018) Need for Inclusion scale, which includes 20 items such as "I need to feel connected to people close to me" and "Being a part of a group is important to me" rated from *strongly disagree* (1) to *strongly*

agree (5). Schutz's (1958) FIRO theory defined need for inclusion as a state-level individual difference, that is less stable over time (like a trait) but can vary over time and context. The items in Valcke et al.'s (2018) measure capture the extent to which individuals need inclusion in general; however, I assume that this measure will provide the information needed for a control variable given that it will be measured at the time of the survey. The scale demonstrated good internal reliability in the sample (α = .89).

Participants Pre vs. Post COVID Work Environment. Findings from all organizational research conducted during the COVID-19 pandemic must be considered within the context of these unusual circumstances. Data for the current study were collected in January 2022, almost two years since workplaces began reacting to the pandemic in March 2020. To allow for findings to be interpreted accurately, I collected information about the impact of the pandemic on participants' work environments. Specifically, I captured (a) whether participants had changed their job, work location, and/or work schedule since before COVID; (b) the percentage of work hours spent working remotely at the time of the study versus before the COVID-19 pandemic; and (c) the extent to which the virtuality of participants' work environments has changed over time on a scale from *not at all* (1) to *a great extent* (4).

Leader Gender. Participants were asked to report their leader's gender so that this could be controlled for in both models if needed. There is not yet empirical evidence as to whether perceptions of inclusive leadership are biased by the leader's gender; however, prior work suggests that gender is related to leadership style both in the actual occurrence rate (e.g., women tend score higher on transformational leadership: Eagly et al., 2003) and the extent to which certain styles match gender stereotypes (see work on

implicit leadership theories, e.g., Offermann & Coats, 2018). Thus, inclusive leadership ratings may vary as a function of leader gender.

Leader Management Level. There may be important differences in the outcomes of inclusive leadership at different organizational levels. Li's (2021) ILQ is intended to measure the inclusive leadership behaviors of immediate supervisors. Thus, the current study asks participants to consider their "manager," defined as the person that they primarily report to. While this should limit participant ILQ responses to immediate supervisors, participants themselves may vary in job level. To ensure a fair comparison across participants, both participant management experience and leader management level were measured.

Workgroup Characteristics. The extent to which participants' workgroups meet the technical definition of team is not directly relevant to the purpose of this study. However, there may be some unexpected yet important distinctions between groups and teams that moderates the effects of inclusive leadership on group-level variables such as workgroup inclusion and workgroup discrimination. To account for this possibly, the extent to which participants' workgroups fit the formal definition of a team was measured with two questions: (a) "Does your workgroup have clearly defined membership such that everyone knows exactly who is and is not a part of the group?" and (b) "Do members of your workgroup share responsibility for some product or service?" I planned to use the average of these two responses as a single score for workgroup interdependence; however, internal reliability was poor (α = .62). Responses to the second question, which capture the general level of workgroup outcome interdependence, was used as a control

variable to allow for study findings to apply across all types of workgroup with varying levels of outcome interdependence.

Workgroup Diversity. Theoretically, inclusion is important for increasing performance and reducing discrimination despite the extent to which a workgroup is composed of demographic minorities or varies in demographic composition. Some prior studies suggest that the outcomes of inclusive leadership vary depending on the diversity of followers, but the evidence is limited to studies of inclusive leadership on workgroup functional (not demographic) diversity (e.g., Mitchell et al., 2015) and the impact of inclusive organizational climates (not inclusive leadership) on demographic diversity (e.g., Nishii & Mayer, 2009; Randel et al., 2016). Despite the potential impact of workgroup diversity on inclusive leadership, workgroup discrimination is likely higher in more diverse groups (Roberson et al., 2017). Perceived workgroup diversity was measured two ways, with a single item "How diverse do you think your workgroup is in general?" on a scale from *not at all diverse* (1) to *very diverse* (5); and with a four-item scale asking, "How similar are members of your workgroup on the following characteristics?" for gender, race, age, and sexual orientation.

Data Analysis

Checking Assumptions

Prior to testing hypotheses, the data was assessed for missing data and threats to the assumptions that underlie linear regression. The distributions of all continuous variables were evaluated for skewness (i.e., the symmetry of the distribution) and kurtosis (i.e., the tail-heaviness of the distribution). In addition, all variables were examined for observations with extreme values that lie abnormally far away from the other values in a

dataset using a two-step approach: (a) examination of boxplots and (b) identifying standardized scores greater than 3.29 and less than -3.29 (Tabachnick & Fidell, 2013). Finally, to ensure that the tenability of the assumption that relationships between key variables can be characterized by a straight line rather than some non-linear form, bivariate relationships were visually examined in a scatterplot and then in a stepwise regression model including the linear, quadratic (squared term) and cubic (cubed term) transformations of the predictor variable.

Some minor issues were identified. Most variables had a slight negative skew due to a moderate number of outliers. Non-linear transformations did not reduce the number of outliers identified. Thus, eight extreme outliers were removed to avoid violating the assumptions that underlie regression (Tabachnick & Fidell, 2013). Some subcategories of demographic variables showed inadequate subgroup-level sample size and so categories were collapsed as needed. For example, all subgroups of race except for those who self-identified as white ranged from 1 to 15 participants (lower than the best practice of having at least 10% of the sample: Newman, 2014). Thus, a new variable was computed that assigned participants to two categories, white or some other race or combination of races.

In addition, two major issues that would make the assumptions underlying linear regression untenable were identified for (a) workgroup discrimination and (b) objective dispersion.

Workgroup Discrimination. The workgroup discrimination scale was extremely right/positive skewed. Workgroup discrimination was captured on a scale from 1 to 6 with higher scores indicating more frequent discrimination and lower scores indicating

less frequent discrimination. Almost one third of the sample (27.90%) responded that they had never experienced workgroup discrimination in the past 12 months. This skewness is not surprising given that overt discrimination is typically a low-base rate phenomenon in the workplace; however, typical nonlinear transformations for positively skewed data (e.g., log, square-root, cube-root) did not provide a significant reduction in skewness. In addition to the 9-item scale, the survey included a single item, "To what extent are members of your workgroup discriminatory towards each other?" Responses to the single item were less skewed but still demonstrated a high right/positive skew. Further examination of the sample distribution suggests that the workgroup discrimination scales captured count data that is best characterized by a Poisson distribution rather than continuous data that takes a normal distribution. Thus, hypotheses 8 through 14 will need to take this into account (see below).

Objective Dispersion. A concerning amount of missing data was identified for the objective dispersion variables. Data was collected with the intention of calculating leader-follower dispersion from spatial (SDI) and temporal dispersion (TZI), and workgroup dispersion from spatial (SDI), temporal (TZI), and configural dispersion. Specifically, leader-follower dispersion was to be calculated as the aggregate of miles between work sites (SDI) and whether the dyads worked in the same or different time zones (TZI). However, the information needed to calculate leader-follower SDI was missing for 25% of the sample and TZI indicated that only 5 participants (2.05% of the sample) were temporally dispersed from their leader (i.e., worked in a different time zone). Workgroup spatial, temporal, and configural dispersion were to be calculated based on O'Leary et al.'s (2014) formulas; however, the information needed was missing

for over 50% of the sample. Furthermore, the one measure of objective dispersion that was able to be calculated (leader-follower SDI) was highly right/positive skewed. Neither non-linear transformation (e.g., log, square-root, cube-root) nor removing outliers reduced the skewness, because over 50% of the sample had a score of 0 miles (i.e., leader and follower work from the same location). Given these issues, two categorical variables were adopted as an alternative to the planned measures, which provided measures of (a) whether participants were collocated with their leader (76.20% of the sample) or dispersed from their leader (23.80%); and (b) whether participants' workgroups were fully collocated (31.10%) or at least partially dispersed (68.90%).

Identifying Control Variables

The following variables were measured so that they could be included as control variables: individual-level need for inclusion, changes in work environment due to the COVID-19 pandemic, leader gender, leader management level, workgroup interdependence, and perceived workgroup diversity. As expected, need for inclusion was positively correlated to inclusive leadership (r = .48) and workgroup inclusion (r = .52). Contrary to expectations leader gender was not related to inclusive leadership ratings, and thus was not included as a control variable. In line with expectations, leader management level was correlated with inclusive leadership (r = .16). Workgroup outcome interdependence was related to identification with workgroup (r = .26), workgroup discrimination (r = -.35), and workgroup inclusion (r = .34). Finally, contrary to expectations, the average of specific types of workgroup diversity (gender, race, age, and sexual orientation) was not related to key variables; but, as expected when perceived workgroup diversity was measured with a single global item, it was related to inclusive

leadership (r = .24), workgroup inclusion (r = .27), and workgroup discrimination (r = .17).

Changes in work environment due to the COVID-19 pandemic were related to key variables. The overall extent to which participants work environments had changed was related to workgroup discrimination (r = .19), identification with workgroup (r = .15), and workgroup inclusion (r = .15). Specifically, whether participants had changed their job (i.e., got a new job since before COVID) was correlated to inclusive leadership (r = .13); whether participants had changed their work location (e.g., worked in the office before COVID but from home during COVID) was correlated to follower task performance (r = -.23) and workgroup discrimination (r = .46); and whether participants had changed their work hours (e.g., 9:00am to 5:00pm before COVID but flexible during COVID) was correlated to follower task performance (r = -.27), workgroup discrimination (r = .48), and workgroup inclusion (r = -.15). Whether participants had changed their job since COVID was unrelated to the other COVID related controls, but the overall work environment change item was positively correlated to whether work location and work hours had changed. However, only 15 participants (6.10% of the sample) had changed jobs since the beginning of the COVID-19 pandemic in March 2020, thus any results based on this variable should be interpreted with caution. In light of these sample size issues and the goal to foster parsimony in subsequent analyses, only the overall work environment change item was retained as a control variable.

Correlations between demographic characteristics (e.g., gender and race) were also assessed to determine whether they needed to be controlled for. Contrary to expectations, whether participants self-identified as white versus some other race was

unrelated to key variables. Gender was related to identification with workgroup (r = .14), but not inclusive leadership or workgroup inclusion as expected. Age was related to workgroup inclusion (r = .15). Whether participants self-identified as straight/heterosexual versus some other sexual orientation was related to identification with workgroup (r = -.13) and workgroup discrimination (r = -.17).

Due to the patterns of correlations described above, the following variables were retained as control in all analyses: individual-level need for inclusion, overall change in work environment due to the COVID-19 pandemic, leader management level, workgroup interdependence, perceived workgroup diversity, gender, age, and sexual orientation.

Construct Discriminant Validity

Given the conceptual relatedness of key study variables, I examined the data for evidence of discriminant validity. To support the assumption that constructs assumed to be distinct are distinct in their measurement (i.e., discriminant validity), a construct should be more highly correlated with similar constructs than with dissimilar constructs. According to Hinkin (1998) and based on Campbell & Fiske's (1959) multi-trait multi-method model (MTMM), discriminant validity can be assumed when different measures of a construct are more correlated with each other than with measures of a theoretically distinct construct regardless of similarity in measurement method (e.g., survey, interview). While only one measure was used to capture each variable in the current study, evidence for discriminant validity can be gleaned from bivariate inter-correlations and fit indices from a confirmatory factor analysis. In the current study, it is likely that (a) inclusive leadership, workgroup inclusion, and workgroup discrimination are positively correlated as they all relate to diversity, equity, and inclusion issues; (b) inclusive

leadership and perceive proximity to leader are positively correlated as they are both employees' perceptions of their leader; and (c) identification with workgroup, workgroup inclusion, and workgroup discrimination are positively correlated as they are all related to employees' perceptions of their workgroup. As discussed below, inclusive leadership and workgroup inclusion are highly positively correlated in this sample (r = .71) but neither inclusive leadership nor workgroup inclusion are correlated to workgroup discrimination; inclusive leadership is also highly positively correlated to perceived proximity to leader (r = .67); and while identification with workgroup and workgroup inclusion are positively correlated (r = .71), neither are related to workgroup discrimination. Using confirmatory factor analysis in R, I compared model fit indices for different models with all main study variables – inclusive leadership, perceived proximity to leader, identification with workgroup, task performance, helping behavior, workgroup inclusion, and workgroup discrimination – where variables were treated as distinct factors versus different combinations of factors (see Table 1). Results support the assumption that study measures adequately distinguish between theoretically distinct constructs.

Chapter 3: Results

Descriptive Statistics and Correlations

Descriptive statistics and correlations among study variables are reported in Tables 2a and 2b. Inclusive leadership was correlated with workgroup identification (r = .62), follower task performance (r = .60), helping behavior (r = .49), workgroup inclusion (r = .71), and perceived proximity to leader (r = .67). For each objective dimension of virtuality measured, leader-follower scores were positively correlated to workgroup scores. For example, the positive relationship between leader-follower dispersion and workgroup dispersion (r = .25) suggests that many of those who were collocated with their leader were also collocated with their workgroup. Similarly, those that worked the same hours and schedule as their leader also tended to work the same hours and schedule as their workgroup (r = .22). The positive correlation between leader-follower and workgroup CMC use (r = .84) suggests that those who rely more on virtual mediums to communicate with their leader are also those who rely more on virtuality in communications with their workgroup. Participants perceptions of proximity to their leader was not related to the objective measures of leader-follower dispersion or reliance on CMC, but it was negatively related to workgroup dispersion (r = -.17) such that those who saw their leader as more proximal were those who tended to work from the same location as their workgroup.

Hypotheses 1-7: Inclusive Leadership and Follower Performance

Hypotheses 1-7 were tested simultaneously in moderated mediation models using Hayes' (2018) PROCESS macro bootstrapping method in SPSS (Preacher & Hayes, 2008). Hayes' (2018) PROCESS macro allows for only on dependent variable and either

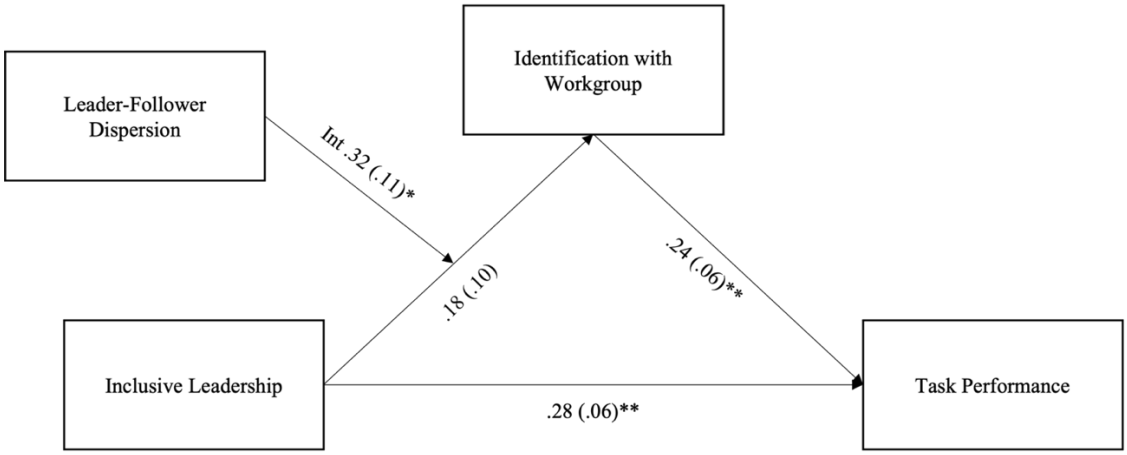
one moderator (model 7) or two moderators (model 9) to be examined at once. Thus, separate models were run to examine task performance as the outcome (see Figure 3) and helping behavior as the outcome (see Figure 4); and the five moderation hypotheses (3-7) were tested in a series of moderated mediation models.

First, hypotheses 1 and 2 were tested with simple mediation using model 4 in Hayes' (2018) PROCESS software with 10,000 bootstrap samples and 95% confidence intervals (CIs). In support of hypotheses 1 and 2, results suggest inclusive leadership has both a significant indirect effect (β = .43, *SE* = .06, LLCI = .31, ULCI = .54) and a direct effect (β = .28, *SE* = .06, LLCI = .17, ULCI = .39) on task performance (see Table 3a) as well as a significant indirect effect (β = .44, *SE* = .06, LLCI = .33, ULCI = .56) and a direct effect (β = .24, *SE* = .08, LLCI = .08, ULCI = .39) on helping behavior (see Table 3b).

The two mediation models were then expanded to test for moderating effects. Hypotheses 3-7 made predictions about how the virtuality in one's relationship with their leader and with their workgroup moderates the relationship between inclusive leadership and workgroup identification. Specifically, it was predicted that the effect of inclusive leadership on follower workgroup identification would be stronger when individuals were collocated with their leader (hypothesis 3) and workgroup (hypothesis 4), reported higher perceived proximity to their leader (hypothesis 5), and rely less on CMC to communicate with their leader is (hypothesis 6) and workgroup (hypothesis 7). Using model 7 in Hayes' (2018) PROCESS software with 10,000 bootstrap samples and 95% confidence intervals (CIs), each moderator was examined individually. Moderated mediation results indicate support for hypothesis 3 but not hypotheses 4-7.

Figure 3

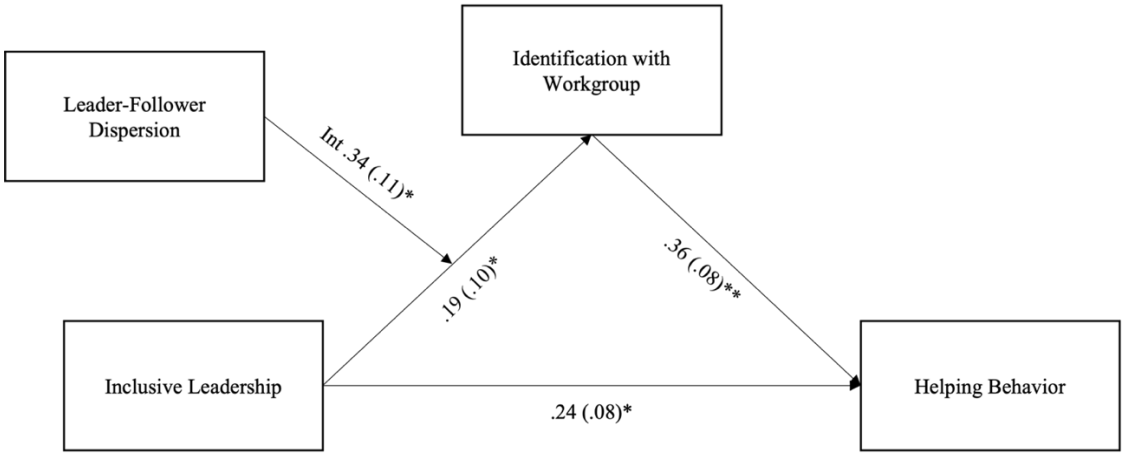
Results Predicting Task Performance from Inclusive Leadership via Workgroup Identification and the Moderation Effect of Leader-Follower Dispersion on the Relationship Between Inclusive Leadership and Workgroup Identification



Note. Numbers indicate effect size with standard error in parentheses.
*p < .05. **p < .01.

Figure 4

Results Predicting Helping Behavior from Inclusive Leadership via Workgroup Identification and the Moderation Effect of Leader-Follower Dispersion on the Relationship Between Inclusive Leadership and Workgroup Identification



Note. Numbers indicate effect size with standard error in parentheses.
*p < .05. **p < .01.

In support of hypothesis 3, the significant indirect effect of inclusive leadership on task performance (β = .28, SE = .06, LLCI = .17, ULCI = .39) depends on leader-

follower dispersion (see Table 4a) such that the relationship is significant for those that are collocated with their leader (β = .51, *SE* = .06, LLCI = .38, ULCI = .63) but insignificant for those that worked from different locations than their leader (β = .18, *SE* = .10, LLCI = -.01, ULCI = .37). A similar pattern was found when predicting follower helping behavior (see Table 4b) such that inclusive leadership has a significant indirect effect on helping behavior (β = .24, *SE* = .08, LLCI = .08, ULCI = .39) that is stronger for those that are collocated with their leader (β = .53, *SE* = .06, LLCI = .40, ULCI = .65) and not for those that are dispersed from their leader (β = .19, *SE* = .10, LLCI = .00, ULCI = .38).

The remaining moderation hypotheses were not supported, because the extent to which inclusive leadership predicts workgroup identification did not vary as a function of workgroup dispersion, perceived proximity to their leader, or reliance on electronic communication with one's leader or workgroup.

Hypotheses 8-14: Inclusive Leadership and Workgroup Discrimination

Hypothesis 8 predicted that individuals with more inclusive leaders would report lower levels of workgroup discrimination than those with less inclusive leaders. Hypothesis 9 predicted that this relationship could be at least partially explained by the mediating role of workgroup inclusion. As described above, the low base-rate of workgroup discrimination in the current sample (*M* = 2.62, *SD* = 1.68 on a scale from 1 to 6) and the sample distribution of the workgroup discrimination count variable make the assumptions underlying linear regression untenable and thus Hayes' (2018) PROCESS macro was not used to test for mediation.

Hypothesis 8 was examined in three ways. First, a Poisson regression was used to examine the extent to which inclusive leadership predicts workgroup discrimination when the latter is assumed to have a Poisson distribution. Contrary to hypothesis 8, results suggest that increases in inclusive leadership are not associated with significant decreases in workgroup discrimination (β = -.15, SE = .25, p = .561). Second, the Poisson regression was replicated using only the sub-sample of participants who experienced at least some workgroup discrimination (β = .28, SE = .90, p = .756), and again does not support hypothesis 8. Finally, a logistic regression was used to examine the extent to which inclusive leadership influences the odds that an individual does or does not experience workgroup discrimination. The workgroup discrimination count variable was transformed into a categorical variable by assigning participants to one of two groups: (a) those that reported experiencing at least some workgroup discrimination in their current workgroup and (b) those that reported they had never experienced workgroup discrimination in their current workgroup. The logistic regression model was statistically significant, $\chi^2(9) = 45.94$, $p < .001$, explained 25.90% (Nagelkerke R^2) of the variance in workgroup discrimination, and correctly classified 78.60% of cases (compared to 73.10% without the information provided by the independent and control variables). However, results from the Wald test suggest that inclusive leadership did not add significantly to the model (β = -.48, SE = .31, p = .125). Taken together, results do not support hypothesis 8.

Hypothesis 9 was tested with simple mediation using the dichotomous version of the workgroup discrimination variable. As shown in Table 5, results from Hayes' (2018) PROCESS model 4 with 10,000 bootstrap samples and 95% confidence intervals (CIs)

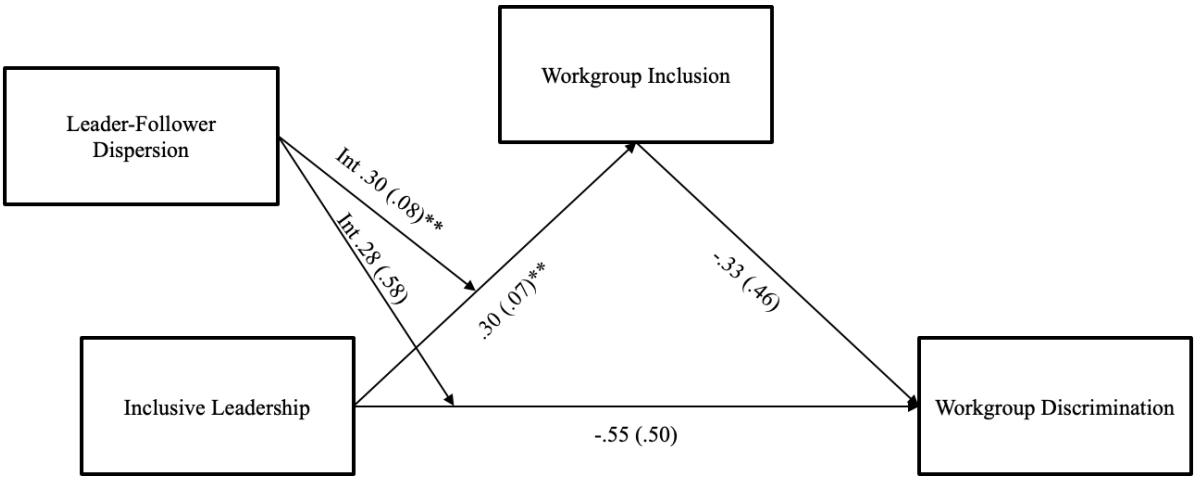
suggest that inclusive leadership does not have an indirect effect on workgroup discrimination via workgroup inclusion (β = -.09, *SE* = .25, LLCI = -.60, ULCI = .41) or a direct effect on workgroup discrimination (β = -.39, *SE* = .38, LLCI = -1.14, ULCI = .36). While these results do not support hypothesis 9, they do indicate that inclusive leadership is positively related to workgroup inclusion (β = .50, *SE* = .05, LLCI = .41, ULCI = .59).

Hypotheses 10 through 14 made predictions about how the virtuality in one's relationship with their leader and workgroup moderates the relationships between inclusive leadership and workgroup inclusion as well as between inclusive leadership and workgroup discrimination. Specifically, it was predicted that the effects of inclusive leadership on workgroup inclusion and workgroup discrimination would be stronger when individuals are objectively closer to their leader (hypothesis 10) and workgroup (hypothesis 11), feel subjectively closer to their leader (hypothesis 12), and rely less on CMC to communicate with their leader (hypothesis 13) and workgroup (hypothesis 14).

As shown in Figure 5 and Table 6, results from Hayes' (2018) PROCESS model 8 with 10,000 bootstrap samples and 95% confidence intervals (CIs) partially support hypothesis 10. While leader-follower dispersion did not moderate the relationship between inclusive leadership and workgroup discrimination, it did moderate the relationship between inclusive leadership and workgroup inclusion (β = .30, *SE* = .08, LLCI = .13, ULCI = .46) such that the relationship was stronger for those collocated with their leader (β = .59, *SE* = .05, LLCI = .48, ULCI = .69) and weaker for those dispersed from their leader (β = .30, *SE* = .07, LLCI = .15, ULCI = .44).

Figure 5

Results Predicting Workgroup Discrimination from Inclusive Leadership via Workgroup Inclusion and the Moderation Effect of Leader-Follower Dispersion



Note. Numbers indicate effect size with standard error in parentheses.
*$p < .05$. **$p < .01$.

The remaining moderation hypotheses were not supported, because neither the extent to which inclusive leadership predicts workgroup inclusion nor workgroup discrimination varied as a function of perceived proximity to their leader, workgroup dispersion, or reliance on electronic communication to interact with one's leader or workgroup.

Exploratory Analyses

In addition to analyses conducted to test hypotheses, several analyses were performed to explore post-hoc research questions about the moderating role of communication technology reliance. Although hypotheses about the relative extent to which individual rely on electronic communications were not supported, there may be important difference based on specific virtual mediums used. The current study's measures of communication technology use captured the extent to which specific mediums – face-to-face; video conference; telephone; text messaging, instant message, or

virtual chat; email; discussion boards; and social media – were used and the informational value provided by each.

In the current sample, subjective ratings of each medium's informational value support the notion as face-to-face is the most valuable for communicating with one's leader (M = 31.41%, SD = 26.53%) and workgroup (M = 32.74%, SD = 29.94%); however, CMC mediums were ranked differently (see Table 7). On average, the most valuable medium for communicating with one's leader or workgroup was text/instant message/virtual chat (M = 14.02%, SD = 14.43%; M = 14.28%, SD = 14.57%), followed by email (M = 14.00%, SD = 13.12%; M = 13.23%, SD = 12.64%), phone (M = 13.69%, SD = 11.29%; M = 11.95%, SD = 11.14%), video conference (M = 11.11%, SD = 13.06%; M = 11.74%, SD = 15.29%), discussion forums (M = 8.32%, SD = 8.63%; M = 8.22%, SD = 9.27%), social media (M = 6.43%, SD = 8.87%; M = 6.27%, SD = 8.17%),), and other (M = 1.02%, SD = 3.38%; M = 1.58%, SD = 4.89%). According to theory (Daft & Lengel, 1986), video would be the objectively richest virtual communication medium tested. However, as shown in Table 7, the current sample rated video lower than text, email, and phone in terms of the informational value provided by interactions with leaders and workgroup members. Although no moderation effect was observed for the combination of virtual mediums (i.e., hypotheses 6, 7, 13, and 14 were not supported), individual CMC mediums were examined individually in an exploratory manner.

In the moderated mediation models predicting workgroup identification (mediator) and follower performance (outcome), the relationship between inclusive leadership and follower workgroup identification was not moderated by the use of text, email, phone, discussion forums, and social media to communicate with their leader or

workgroup. However, small negative moderation effects were observed for use of video conference to communicate with leaders – when predicting follower task performance (see Table 8a) and helping (see Table 8b) – and for use of video conference to communicate with workgroups – when predicting task performance (see Table 9a) but not helping (see Table 9b). These results suggests that inclusive leadership is more predictive of workgroup identification when video conference is used less frequently.

In the moderated mediation model predicting workgroup inclusion (mediator) and workgroup discrimination (outcome), a small negative moderation effect was observed for workgroup use of telephone conversations on the relationship between inclusive leadership and workgroup inclusion but not workgroup discrimination (see Table 10). This suggests inclusive leadership is more predictive of workgroup inclusion when workgroups communicate less frequently via telephone conversations.

The small moderation effects observed for use of video conference (to communicate with leaders and workgroups) and telephone (to communicate with workgroups) do not necessarily support hypotheses. However, they do suggest that less use of video conference and telephone conversations is more favorable for the inclusive leadership process.

Chapter 4: Discussion

Taken together, the current study's results contribute to our understanding of inclusive leadership as both a performance enhancing leadership style and diversity management strategy in the context of virtual work.

Performance Benefits of Inclusive Leadership

Results from the current study provide additional support for the notion that inclusive leaders not only encourage prosocial behaviors in their followers (e.g., helping) but that adopting an inclusive leadership style can also have a significant impact on employee task performance. Unlike findings from prior studies, this relationship appears linear (see Xiaotao et al., 2018), and is just as likely for whites and racial minorities (see Jin et al., 2016). As proposed by Randal et al. (2018), the performance benefits of inclusive leadership seem to be at least partially because employees with more inclusive leaders tend to see their workgroup membership as a key part of their social identity. Inclusive leaders treat all workgroup members fairly and ensure that unique perspectives are heard, and unique expertise is valued (Li, 2021). These behaviors make members feel like insiders and encourage them to experience the successes and failures of the workgroup as their own, which provides various performance benefits (Randal et al, 2018).

In addition, the current study provides insight into how the expected performance benefits of inclusive leadership may and may not depend on virtuality in the work environment. Findings suggest that while overall reliance on communication technology does not help or harm the performance benefits of inclusive leadership, dispersion may

present significant challenges. Specifically, working from a different location than one's leader (e.g., working from home while one's leader works from the office, working from home while one's leader also works from home, working from two separate offices) weakened the performance benefits of inclusive leadership. While inclusive leadership was no less likely when individuals were distanced from their leaders (M = 3.80, SD = .74) versus collocated with their leaders (M = 3.83, SD = .61), the impact of inclusive leadership on performance outcomes became insignificant. Interestingly, whether other workgroup members also worked from that same location was not a significant factor. This finding – that inclusive leadership is more likely to improve performance when leaders and followers typically work from the same location – begs the question of what allows inclusive leadership to provide the expected performance benefits when leaders and followers are collocated that might not be available when leaders and followers are dispersed.

The weaker relationship between inclusive leadership and performance for those working at a distance from their leaders did not appear to be because of the increased reliance on communication media such as email or video conference as might be expected. In fact, the extent to which individuals met face-to-face with their leader rather than via communication technology had no influence on the performance benefits of inclusive leadership. This suggests that collocation with one's leader provides something more than just increased face-to-face meetings, but it also explains why, for the most part, richer communication technologies were not necessarily more favorable than leaner technologies as it is not about supplementing face-to-face communication. There was, however, a small moderation effect observed for video conference, but it suggests that

richer communication technologies may actually be unfavorable, as more frequent use of video conferences weaken the impact of inclusive leadership on performance. This finding should be interpreted cautiously given the very small effect size, but it does seem to imply that the use of richer communication media can become excessive and present challenges for inclusive leadership. Recent discussion about the cons of video-based technologies in the workplace (e.g., "Zoom fatigue") in research (e.g., Bailenson, 2021) and practice (e.g., Fosslien & Duffy, 2020) suggests that the observed moderation effect is not because video inherently makes it harder for leaders to perform inclusion, but instead, video weakens the inclusion process because employees' experiences of video calls are less favorable overall (Bailenson, 2021). In other words, the excessive use of video conference calls could be expected to jeopardize any leadership process, and so inclusive leaders are likely to bring less performance benefits when they use video more frequently regardless of their inclusion efforts.

In sum, while findings generally support current theory about the performance benefits of inclusive leadership, they highlight important contingencies due to virtuality in the workplace. Inclusive leadership may be less relevant when leaders and followers are physically dispersed, but employees' perceptions and experiences of virtuality are also impactful. Inclusive leaders tend to foster higher perceived proximity (the subjective side of dispersion) as compared to non-inclusive leaders, but it did not help them attain higher performance when objective dispersion was high. In other words, inclusive leadership may lead employees to experience the "far but close" paradox (Wilson et al., 2008), but it does not buffer against the detriments of objective distance for performance. In general, the use of communication technology does not help or hurt the performance

benefits of inclusive leadership. However, the subjective experience of specific communication technologies (in this case video conference and telephone) may present unique challenges. Thus, the performance benefits of inclusive leadership are likely not interrupted by subjective distance or objective technology use but do depend on objective distance and subjective perceptions of technology.

Inclusive Leadership as a Diversity Management Strategy

In practice, inclusive leadership has been cited as a method for reducing bias and discrimination (Schoeller, 2020), yet there is very little empirical support for the notion that inclusive leaders can directly reduce the level of discrimination in their workgroups. Prior theoretical explanations of inclusive leadership (e.g., Randal et al., 2018; Shore et al., 2011) have proposed that inclusive leadership helps reduce discrimination in the workplace because it leads to the development of workgroup inclusion, and members of inclusive groups are less discriminatory to each other. However, evidence from the current study's sample suggests that neither inclusive leadership nor workgroup inclusion is related to lower levels of workgroup discrimination. The lack of relationship between inclusion and discrimination was partially due to the low rate of discrimination typically experienced at work. For example, individuals with highly inclusive leaders and/or workgroups were just as likely to report never experiencing workgroup discrimination as those with leaders and/or workgroups who do not practice inclusion. However, the current sample also suggests that for those who do experience workgroup discrimination, it is just as likely that their leader and workgroup are not inclusive as it is that their leader and workgroup are inclusive. Overt discriminatory behaviors are not very common in the workplace, but they do still happen. In the current study, 72.10% of the sample reported

experiencing at least some workgroup discrimination. Thus, it is concerning that inclusion, when adopted as a leadership style or developed at the group-level, seems to have no impact on discrimination.

It should be noted that these empirical findings rely on the scholarly definition of inclusion, which may be different from what has been discussed in the practitioner literature. The evidence presented here only suggests that inclusive leadership does not reduce discrimination when inclusion is defined as meeting individuals needs for belongingness, uniqueness, and authenticity and implementing organizational diversity, equity, and inclusion initiatives. The scale used to measure inclusive leadership (Li, 2021) was developed to measure inclusive leadership as meeting followers belongingness, uniqueness, and authenticity needs by (a) treating all workgroup members with fairness, equality, and respect; (b) encouraging integration of and synergy among all workgroup members; and (c) explicitly enacting diversity and inclusion in the workgroup. Investigation of the relationships between workgroup discrimination and specific factors of inclusive leadership did not provide any additional insight, as the factor scores were all highly correlated with each other, and all three factor scores were unrelated to workgroup discrimination just as the overall index score. The scale used to measure workgroup inclusion (Chung et al., 2020) was developed to capture two factors, how workgroups meet members needs for (a) belonging and (b) uniqueness. Similarly, these two factors were highly intercorrelated and neither were related to workgroup discrimination when examined individually. The lack of relationship between workgroup discrimination and inclusive leadership, workgroup inclusion, or any of the two inclusion variables factor scores begs the question, why is inclusion as it is currently defined and

measured in the literature an ineffective strategy for reducing discrimination in the workplace?

One potential reason the current conceptualizations of inclusive leadership and workgroup inclusion are unable to significantly reduce workgroup discrimination is the assumption that a similar approach to inclusion is appropriate for all groups and all individuals. Current definitions and measures of inclusion used in the literature (including this study) assume that because everyone wants to be included, trying to meet individuals inclusion needs can be done by treating everyone with equal levels of and approaches to inclusion. It is also assumed that inclusive leadership and workgroup inclusion should provide the same benefits regardless of workgroup diversity such that inclusion does not depend on any specific characteristics or group composition. Unfortunately, there is very little empirical evidence to support these assumptions. Theoretically, these assumptions may be untenable for at least three reasons. First, while all individuals may have inclusion needs, they may differ in the extent to which they need to feel included in general and in the workplace specifically (Schutz, 1958). Second, the extent to which inclusion works to reduce discrimination may depend on the specific characteristics of workgroup members (e.g., gender, race, age, and sexual orientation). Finally, diversity is a characteristic of groups, not individuals, and thus, individual needs for inclusion must be considered in context. For example, in groups with strong faultlines (i.e., when groups are separated by subgroups composed of similar individuals, e.g., gender creates a faultline between women versus men in the group) it may be more beneficial to tailor inclusion efforts to the needs of specific subsets of a workgroup that feel minoritized rather than the group in general. The way inclusive leadership and workgroup inclusion

are currently studied does not question these three assumptions. This allows the literature to follow an equality approach, where inclusion is meant to make everyone feel equally included. However, equality may be an ineffective goal if inclusion is adopted to reduce discrimination. The reality is that discrimination is experienced unequally. For example, a recent study by The Harris Poll showed that the most common type of workplace discrimination in the US was race-based, suggesting that racial minorities experience more discrimination than white employees (Jackson, 2020). The same study found that men were more likely than women to experience age-based discrimination at work (Jackson, 2020). Thus, not only do some individuals experience more workplace discrimination because of one specific part of their identity, but multiple characteristics can interact to make individuals more or less vulnerable to discrimination. Thus, a more targeted, equity-based approach that takes into account the unique experiences of each individual and in the unique context of each team may be necessary for inclusion to go beyond improving performance and significantly reduce discrimination.

The Impact of Virtuality on Inclusive Leadership and Workgroup Inclusion

The relationship between inclusive leadership and workgroup inclusion, and the role of virtuality in that relationship, was examined in the current study to understand the impact of inclusive leadership on workgroup discrimination. While insights from these efforts do not inform the extent to which inclusive leadership reduces workgroup discrimination (because these two variables were unrelated), they do provide insight into the role of virtuality in the inclusion process in general. As expected, those with more inclusive leaders were also likely to be members of more inclusive groups. However, this relationship did depend on one of the virtual work environment dimensions examined,

leader-follower dispersion. Inclusive leadership was more strongly related to workgroup inclusion when individuals were collocated with their leader rather than dispersed across different work locations. This finding implies that inclusive leadership is most relevant for leading collocated teams, but it may also be that spatial dispersion makes inclusive leadership more difficult. If spatial dispersion presents challenges to the inclusive leadership process, "shortening" the distance by meeting face-to-face more frequently would be expected to ease this tension. Similarly, more frequent use of information-rich or subjectively valuable communication media would also be expected to improve the relationship between inclusive leadership and workgroup inclusion if spatial dispersion simply makes inclusive leadership more difficult. Yet none of the communication mediums examined (face-to-face or virtual) moderated the relationship between inclusive leadership and workgroup inclusion.

Given that neither the extent to which individuals communicated face-to-face with their leaders or workgroups nor the use of communication technologies in general or specific mediums had an influence on the extent to which inclusive leaders were able to develop inclusion in their workgroups, results imply that inclusive leadership is only relevant for leading collocated teams. However, further post-hoc examination of the data suggests this may be a premature conclusion. For example, the extent to which individuals met face-to-face with their leaders was significantly higher for collocated dyads (M = 7.14, SD = 13.38) than those dispersed across different work locations (M = 1.53, SD = 2.23). In addition, those that worked from the same location as their leader were significantly less likely than those dispersed from their leader to have telephone conversations with their leader (M = 1.61, SD = 2.39, and M = 3.86, SD = 12.72

respectively) or to use video conferences to communication with their leaders (M = .92, SD = 1.94, and M = 2.07, SD = 5.13) and workgroup in general (M = 1.23, SD = 3.61, and M = 3.27, SD = 6.76). The remaining communication technologies examined (email, text, discussion forums, social media) were used at equal rates on average regardless of whether individuals were collocated with their leader. Despite the lack of significant moderations, these mean differences suggest that leader-follower collocation is at least partially a proxy for the way individual communicate with their coworkers. When individuals work from the same location as their leader, they spend more time communicating face-to-face with both their leaders and workgroups and less time communicating with their leaders via the phone and with both their leaders and workgroups over video conference. These specific conditions seem to create the most favorable environment for inclusion to "trickle-down" from leaders to workgroups.

Another explanation for the current study's findings about the moderating role of virtuality in the relationship between inclusive leadership and workgroup discrimination could be that inclusive leadership was measured from the employee perspective (i.e., individuals' subjective perception of the extent to which their manger exhibits the inclusive leadership style). However, the information individuals use to inform perceptions of their leaders' inclusion may differ depending on virtuality in the work environment. Studies have yet to explore the antecedents of inclusive leadership, but if inclusive leadership is considered a special case of ethical leadership, there are likely leader, situational, and organizational factors that predict employee perceptions of inclusive leadership (see Foley, 2021). For example, the extent to which leaders are personally concerned about ethics and morality has been proposed as predictor of

whether leaders develop a reputation for ethical leadership (Ko et al., 2017). Similarly, the extent to which leaders seem to know about DEI and personally value inclusion likely predicts employees perceptions of inclusive leadership. When working at a distance from one's leader, employees perceptions of their leader's thoughts and feelings about DEI may be less salient or well development, whereas those who tend to observe and interact with their leader more face-to-face likely have more insight into their leader's thoughts and feelings about DEI. As described above, the average level of inclusive leadership reported by those distanced from their leaders (M = 3.80, SD = .74) versus collocated with their leaders (M = 3.83, SD = .61) was not significantly different. However, it could be that inclusive leadership had a stronger impact when leaders and follower are collocated because of what informs individuals' perceptions of inclusive leadership.

Limitations and Future Research Needed

Findings from the current study, like those from any single study, should be interpreted considering limitations. As discussed above, inclusive leadership is theoretically unique from similar leadership styles and thus is expected to provide unique benefits for diversity and inclusion related goals. The current study was not able to compare the effects of inclusive leadership on follower performance or workgroup discrimination to other styles. Future research should examine the incremental predictive validity of inclusive leadership alongside similar styles such as ethical leadership, empowering leadership, transformational leadership, and shared leadership. Such studies could explore the extent to which other styles are better suited for reducing discrimination and whether they provide the same performance benefits as inclusive leadership. From the current study's results, it is unclear whether the lack of relationship

between inclusive leadership and workgroup discrimination is because the inclusive leadership style lacks some component that is necessary to significantly reduce discrimination or because it includes some component that works against the goal of reducing discrimination. For example, it could be that inclusive leadership creates a "too-much-of-a-good-thing" effect (Pierce & Aguinis, 2013) where workgroups with moderately inclusive leaders see a reduction in discrimination but there is a tipping point at which these beneficial effects begin to wane and instead, very high levels of inclusive leadership are associated with more discrimination than moderate levels. The current sample does not support this notion as the relationship between inclusive leadership and workgroup discrimination does not follow this pattern (see Appendix E). Future research could examine the relative effects of adopting an inclusive leadership style in addition to other similar styles (e.g., a leader that is both inclusive and authentic) versus replacing inclusive leadership with a similar style (e.g., comparing inclusive leaders to ethical leaders) to identify the most optimal leadership approach for improving performance *and* reducing discrimination. In addition, more research on the dimensionality of the inclusive leadership style is needed to examine not only the overlap between inclusive leadership and similar styles (e.g., empowering leadership) but also the predictive validity at the facet level. For example, it could be that the "Implementing organizational diversity and inclusion related policies and programs in the work unit" facet of inclusive leadership is unrelated to discrimination, but the "Providing equal opportunity and fair treatment to all work unit members" facet does help reduce discrimination. Further validation of inclusive leadership measures such as Li's (2021) could help address this research question.

Another potential avenue for future research is to examine the influence of organizational level climate for inclusion and/or the role of organizational culture and values. While recognizing that the individual experience of inclusion is informed by practices at many organizational levels (Ferdman, 2014), the current study examined inclusion at only the leader and workgroup levels. However, part of the inclusive leadership style is implementing organizational diversity, equity, and inclusion (DEI) initiatives at the workgroup level. The current study did not capture information about the specific policies and programs being used by participants' organizations. Future research might explore the characteristics of organization's DEI programs and the role of specific cultural values in the inclusion process. For example, studies of ethical leadership have shown that ethical organizational behavior tends to "trickle-down" from top level managers to middle managers to all employees (e.g., Mayer et al., 2009) and that when organizations and leaders send a consistent message about ethical norms and standards, ethical leadership has a stronger impact on follower performance outcomes (Peng & Kim, 2019). Thus, the performance effects of inclusive leadership shown in the current study may be strengthened by organization level inclusion. However, given that inclusion is a specific value, both the alignment between the level of inclusion at multiple organizational levels and the strength of that value in the organizational culture should be examined. For example, value alignment may aid the performance effects of inclusion while the strength and nature of an organizational DEI-related values may be what influences the extent to which inclusion reduces discrimination.

The current study's findings provide some important insights into the impact of virtuality on inclusion; however, the study had two related limitations that could be

explored in future research. First, missing data issues made it impossible to examine the impact of configural dispersion in workgroups. Having some collocated and some distanced group members may present unique challenges for the inclusion process. Theoretically, if inclusive leadership provides performance benefits mostly for followers working from the same location as their leader (as results suggested), then the benefits of inclusive leadership for individual-level performance may not translate to the workgroup-level for groups with configural dispersion. Second, virtuality in the relationships between individuals and their leaders or workgroups was examined in terms of participants "typical" work environment; however, there may be important distinctions between unique work arrangements. For example, the finding that inclusive leadership improves performance only when leaders and followers work from the same location could be examined to determine the exact amount of time that leaders and followers need to be collocated to allow for inclusive leadership to provide performance benefits. It may be that leaders and followers can work dispersed some of the time but that there is a tipping point (e.g., working from home more than one day per week) at which dispersion becomes a significant burden for inclusion. Future research is needed to replicate findings from the current study and extend them to account for different virtual work arrangements at both the individual- and team-level.

Another potential limitation of the current study is the operationalization of workgroup discrimination. First, workgroup discrimination was looked at in general, not in terms of specific demographics. As discussed above, the extent to which inclusion reduces discrimination may depending on the specific characteristics of workgroup members, but it may also depend on the specific types of discrimination experienced in

the workgroup. Inclusion may be generally beneficial for groups with all levels of diversity, but groups may have unique inclusion-related needs depending on the historical and social contexts that underly member identities. In the current study, participants were instructed to consider within-group discrimination they had experienced "because of gender, race, age, sexual orientation, or other demographic characteristics." This allowed for a higher-level comparison between groups' overall levels of discrimination, which was appropriate for the study because inclusive leadership is expected to meet the needs of all groups regardless of what characteristics make them diverse or homogenous. However, the workgroup discrimination measure does not provide a way to parse which specific types of discrimination (e.g., racial discrimination) contributed to ratings and which did not. It may be that inclusive leadership is successful for reducing some specific types of discrimination but fails to address the unique needs of groups with other specific types of discrimination. In general, more diverse groups were those that experienced more within-group discriminatory behaviors. However, the overall rating of workgroup diversity was only moderately correlated with the average of gender, race, age, and sexual orientation-based diversity (r = .42). When examined individually, workgroup discrimination was unrelated to workgroup diversity in terms of gender, race, or age, but it was related to workgroup diversity in sexual orientation (r = .28). Interestingly, discrimination and diversity ratings were also unrelated to participant gender and race such that women and racial minorities did not report higher perceived diversity or discrimination, but they were related to participant sexual orientation. Taken together, significantly more workgroup discrimination was reported by those who (a) identified as *not* straight/heterosexual reported ($F(242) = 2.54$, $p = .007$, $M_{\text{straight}} = 2.53$, $M_{\text{not-straight}} =$

3.50) and (b) were members of workgroups with more sexual orientation based diversity ($F(4,239) = 5.40$, $p < .001$). What specific type(s) of discrimination contributed to workgroup discrimination ratings in the current study is unknown, but it seems likely that the extent to which inclusive leadership can help reduce workgroup discrimination may depend on specific characteristics. For example, inclusion may be able to reduce gender, race, and age but not sexual orientation-based discrimination. Future research is needed to examine the role of inclusion in reducing specific types of discrimination.

Second, both discrimination experience from workgroup members towards oneself and discrimination observed between other workgroup members were examined in one composite measure of the general level of discrimination in the workgroup. However, personally experiencing discrimination and being a bystander to others' experiencing discrimination can be very different experiences (e.g., Sinclair, 2021). I expected inclusion to help reduce both types of experiences, and thus participants were instructed to consider how many discriminatory "incidents happened in your workgroup to you or other members." Given that both inclusive leadership and workgroup inclusion were measured from the individual employee's perspective, it could be that one explanation for the lack of relationships between inclusion and workgroup discrimination found in the current study are due to the lack of distinction made between discrimination that individuals experienced themselves versus observed being committed towards others. For example, it could be that employee who see their workgroup managers as more inclusive are also those that experience less discrimination themselves but not necessarily observe less discrimination happening to others in their workgroup. Future research is

needed to explore the effects of inclusive leadership on more specific forms of workgroup discrimination.

Another potential limitation of the current study and an important avenue for future research is the way virtuality was examined in relation to discrimination. Virtuality was examined as a moderator variable; however, it could be that virtuality has a direct impact on workgroup discrimination. Virtuality in the work environment fundamentally changes the way employees interact with each other, and previous research suggests that these changes can both reduce and promote discrimination. Based on equalization theory (see Ocker, 2007), virtuality makes discrimination harder to discern, but based on the concept of deindividuation, some argue that virtuality begets discrimination by increasing reliance on stereotypes (see Dubrovsky et al., 1991). In the current sample, the level of workgroup discrimination individuals reported was correlated to virtuality variables such that more discrimination was reported by those who relied more on CMC to communicate with their leader and workgroup and were dispersed from their workgroup but collocated with their leader. These bivariate relationships imply that virtuality is related to increased discrimination (as deindividuation theory suggests), making diversity management strategies especially important in highly virtual work environments. Given that results from the current study suggest that inclusive leadership does not have a significant impact on workgroup discrimination at any level of virtuality, additional research is needed to identify how leaders can work against discrimination, especially to meet the increased need in virtual work environments.

Finally, the current study must be interpreted in light of the COVID-19 pandemic and other impactful socio-cultural trends. While the study was originally conceptualized

prior to the pandemic, much of the planning and all of the data collection was completed after March 2020 when the world of work drastically changed for many in the U.S. Response patterns may have been different if captured before COVID-19, but they may also have been different if data was collected at a different point during the pandemic. The survey was conducted in January 2022, almost two years into the pandemic. Individuals may have responded differently if surveyed only one year or even 6 months into the pandemic, because they had less time to adjust to the COVID related changes in their workplace. In addition to COVID, there have been some important inflection points during the past couple of years that have highlighted diversity, equity, and inclusion (DEI) issues in the U.S. workplace. For example, the summer of 2020, which has been called the "summer of racial reckoning" (e.g., Chang & Martin, 2020) due to the widespread protests against police shootings of unarmed Black people, forced many organizations to begin prioritizing DEI (Thorbecke, 2020). Results from the current study are less likely to depend on COVID because the overall extent to which one's work environment changed was controlled for, but they may depend on the DEI context in which they were observed, and thus future research is needed to replicate and extend findings. For example, future studies could examine how organizational climate for inclusion and changes to that climate influence the extent to which inclusive leadership provides performance benefits and/or reduces discrimination.

Practical Implications

Findings from the current study support the notion that inclusive leadership is a helpful leadership style for improving follower performance, which has been discussed in the literature (e.g., Randal et al., 2018). However, findings also suggest that inclusive

leadership does not reduce discrimination. By examining both the positive, performance effects of inclusive leadership *and* the extent to which inclusive leadership impacts the more negative side of diversity, equity, and inclusion (DEI), i.e., discrimination, the current study is among the first to address the gap between DEI science and practice. While the scientific literature has mostly focus on the performance benefits of inclusion (Shore et al., 2018), inclusion is expected to be antithetical to discrimination in practice (Sawyer et al., 2020). Recent discussions in more applied journals targeted at practitioners describe inclusive leadership in particular as a promising diversity management strategy. For example, in the *Harvard Business Review*, Bourke & Espedido (2020) argue "inclusive leadership is emerging as a unique and critical capability helping organizations adapt to diverse customers, markets, ideas and talent." Without empirical evidence that inclusive leadership helps reduce discrimination, this kind of conclusion may be premature.

The current study is one of the first to empirically test whether the inclusive leadership provides more than the expected performance benefits and helps organizations meet is their DEI goals. My findings suggest that inclusive leadership surely helps diverse groups perform despite their differences (workgroup diversity was included as a control variable in all analyses), but it may not actually reduce the discrimination that will cause employees to become unsatisfied and leave the organization. Recent calls urge organizations to adopt diversity management strategies that focus on employee retention rather than selection to achieve a diverse workforce (e.g., Hancock et al., 2021). One of the main reasons minority employees leave is because of discrimination (Pandey, 2020). It is important that diversity, equity, and inclusion (DEI) efforts address the negative side

of diversity not just the positive sides of inclusion. Many leadership styles (e.g., empowering leadership: Hill & Bartol, 2016) and workgroup processes (e.g., cohesion: Paul et al., 2016) can provide performance gains in diverse groups, but inclusive leadership is meant to go above and beyond similar styles to address DEI issues. Organizations should be cautious in the assumptions they make about inclusion given evidence that neither inclusive leadership nor workgroup inclusion has an impact on workgroup discrimination. Other strategies (e.g., anti-bias training for all employees) may be needed to bolster inclusion efforts. Alternatively, inclusion may need to be redefined to, for example, tailor the approach to the unique needs of specific employees and workgroups.

The current study also provides insights into the extent to which virtual work environments interrupt the inclusion process. Inclusive leadership appears more relevant for collocated groups. In addition, the moderation effects observed for specific communication media provide support for the idea that value of specific communication mediums is subjective and depends highly on the preferences of communicators. For example, prior theory suggests that richer communication mediums would aid the inclusion process for dispersed groups, but findings from the current study suggest that in order to develop workgroup inclusion inclusive leaders should actually avoid richer media regardless of whether their follower are collocated or dispersed. Organizations and leaders must take virtuality into account and consider how the use of specific communication technologies (e.g., video conference) and work arrangements (e.g., working from home) may reduce their ability to develop inclusion.

Considering the role of virtuality in workplace DEI may be especially important during the COVID-19 pandemic. COVID-19 has had a significant impact on the work environment for many in the U.S. (Parker et al., 2020). In the current sample, 59% said their work environment changed at least somewhat as a result of the COVID pandemic and 23% said their work environment changed to a great extent. However, it should be noted that these changes (e.g., high rates of working from home, "Zoom fatigue") are essentially extreme versions of preexisting situations (e.g., many worked from home before COVID-19 but it is more prevalent and frequent during COVID-19, video conferences were used prior COVID-19 but they were not used as a replacement for all face-to-face communications all the time as they have been during COVID-19). Thus, it is important for organizations to consider the role of virtuality in DEI not just in response to COVID-19, but also in preparation for a post-COVID workplace.

Conclusion

The current study serves as an important empirical test of inclusive leadership theories. Inclusion has been discussed in both research and practice as a promising diversity management solution, but empirical investigations are lacking. Findings from the current study make a significant contribution by providing empirical evidence of some benefits and drawbacks of inclusive leadership. As the workforce becomes increasingly diverse and organizations continue to operate in increasingly virtual environments, inclusive leadership may be promising a strategy for realizing the performance benefits of employee differences. However, physical distance between leaders and followers may pose as a significant challenge for inclusive leaders. In addition, inclusive leadership may not be the best strategy for addressing the more

negative side of workforce diversity as inclusive leaders do not appear to lead workgroups with less discrimination than leaders who had not adopted an inclusive style. Taken together, these findings suggest important directions for future research and reveal interesting insights for organizations looking to develop inclusion in their leaders and workgroups.

References

Aguinis, H. & Lawal, S. O. (2012). Conducting field experiments using eLancing's natural environment. *Journal of Business Venturing, 27*, 493–505. https://doi.org/10.1016/j.jbusvent.2012.01.002

Aguinis, H., Villamor, I., & Ramani, R. S. (2020). MTurk research: Review and recommendations. *Journal of Management, 47*(4), 823-837. https://doi.org/10.1177%2F0149206320969787

Allen, T. D., Johnson, R. C., Kiburz, K. M., & Shockley, K. M. (2013). Work–family conflict and flexible work arrangements: Deconstructing flexibility. *Personnel Psychology*, *66*(2), 345-376. https://doi.org/10.1111/peps.12012

Andressen, P., Konradt, U., & Neck, C. P. (2012). The relation between self-leadership and transformational leadership: Competing models and the moderating role of virtuality. *Journal of Leadership and Organizational Studies, 19*(1), 68-82. https://doi.org/10.1177%2F1548051811425047

Antonakis, J., & Atwater, L. (2002). Leader distance: A review and a proposed theory. *The Leadership Quarterly*, *13*(6), 673-704. https://doi.org/10.1016/S1048-9843(02)00155-8

Arnold, J. A., Arad, S., Rhoades, J. A., & Drasgow, F. (2000). The empowering leadership questionnaire: The construction and validation of a new scale for measuring leader behaviors. *Journal of Organizational Behavior, 21*(3), 249-269. https://doi.org/10.1002/(SICI)1099-1379(200005)21:3%3C249::AID-JOB10%3E3.0.CO;2-%23

Avolio, B. J., & Bass, B. M. (1995). Individual consideration viewed at multiple levels of analysis: A multi-level framework for examining the diffusion of transformational leadership. *The Leadership Quarterly*, *6*(2), 199-218. https://doi.org/10.1016/1048-9843(95)90035-7

Avolio, B. J., Kahai, S., & Dodge, G. E. (2000). E-leadership: Implications for theory, research, and practice. *The Leadership Quarterly*, *11*(4), 615-668. https://doi.org/10.1016/S1048-9843(00)00062-X

Avolio, B. J., Sosik, J. J., Kahai, S. S., & Baker, B. (2014). E-leadership: Re-examining transformations in leadership source and transmission. *The Leadership Quarterly*, *25*(1), 105-131. https://doi.org/10.1016/j.leaqua.2013.11.003

Bailenson, J. N. (2021). Nonverbal overload: A theoretical argument for the causes of Zoom fatigue. *Technology, Mind, and Behavior, 2*(1). https://doi.org/10.1037/tmb0000030

Bandura, A. (1977). *Social learning theory* (Vol. 1). Prentice-Hall.

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.

Bell, B. S., & Kozlowski, S. W. J. (2002). A typology of virtual teams: Implications for effective leadership. *Group & Organization Management*, *27*(1), 14-49. https://doi.org/10.1177%2F1059601102027001003

Bell, S. T., Villado, A. J., Lukasik, M. A., Belau, L., & Briggs, A. L. (2011). Getting specific about demographic diversity variable and team performance relationships: A meta-analysis. *Journal of Management*, *37*(3), 709-743. https://doi.org/10.1177%2F0149206310365001

Bidee, J., Vantilborgh, T., Pepermans, R., Willems, J., Jegers, M., & Hofmans, J. (2017). Daily motivation of volunteers in healthcare organizations: relating team inclusion and intrinsic motivation using self-determination theory. *European Journal of Work and Organizational Psychology, 26*(3), 325-336. https://doi.org/10.1080/1359432X.2016.1277206

Blacksmith, N., Willford, J. C., & Behrend, T. S. (2016). Technology in the employment interview: A meta-analysis and future research agenda. *Personnel Assessment and Decisions*, *2*(1). https://doi.org/10.25035/pad.2016.002

Blau, P. M. (1977). *Inequality and heterogeneity: A primitive theory of social structure*. Free Press.

Bourke, J. & Dillion, B. (2018). The diversity and inclusion revolution: Eight powerful truths. *Deloitte Review, 22,* 81-95. https://www2.deloitte.com/us/en/insights/deloitte-review/issue-22/diversity-and-inclusion-at-work-eight-powerful-truths.html

Bourke, J. & Titus, A. (2019, March 29). Why inclusive leaders are good for organizations, and how to become one. *Harvard Business Review*. https://hbr.org/2019/03/why-inclusive-leaders-are-good-for-organizations-and-how-to-become-one

Bourke, J. & Titus, A. (2020, March 06). The key to inclusive leadership. *Harvard Business Review.* https://hbr.org/2020/03/the-key-to-inclusive-leadership

Bowleg, L., Neilands, T. B., & Choi, K. H. (2008). Evaluating the validity and reliability of a modified schedule of sexist events: Implications for public health research on women's HIV risk behaviors. *Women & Health*, *47*(2), 19-40. https://doi.org/10.1080/03630240802092175

Brewer, M. B. (1991). The social self: on being the same and different at the same time. *Personality & Social Psychology Bulletin, 17*(5), 475-482. https://doi-org.proxygw.wrlc.org/10.1177%2F0146167291175001

Brewer, M. B., & Roccas, S. (2001). Individual values, social identity, and optimal distinctiveness. In C. Sedikides & M. B. Brewer (Eds*.), Individual self, relational self, collective self* (pp. 219-237). Psychology Press/Taylor & Francis.

Brown, M. E., & Treviño, L. K. (2014). Do role models matter? An investigation of role modeling as an antecedent of perceived ethical leadership. *Journal of Business Ethics*, *122*(4), 587-598. https://doi.org/10.1007/s10551-013-1769-0

Brown, M. E., Treviño, L. K., & Harrison, D. A. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes*, *97*(2), 117-134. https://doi.org/10.1016/j.obhdp.2005.03.002

Byrne, D. E. (1971). *The attraction paradigm.* Academic Press.

Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological Bulletin*, *56*(2), 81-105. https://psycnet.apa.org/doi/10.1037/h0046016

Carlson, J. R. & Zmud, R. W. (1999). Channel expansion theory and the experiential nature of media richness perceptions. *Academy of Management Journal*, *42*(2), 153-170. https://doi.org/10.5465/257090

Carmeli, A., Reiter-Palmon, R., & Ziv, E. (2010). Inclusive leadership and employee involvement in creative tasks in the workplace: The mediating role of psychological safety. *Creativity Research Journal*, *22*(3), 250-260. https://doi.org/10.1080/10400419.2010.504654

Chang, A. & Martin, R. (2020). *Summer of racial reckoning.* NPR. https://www.npr.org/2020/08/16/902179773/summer-of-racial-reckoning-the-match-lit

Cheung, J. H., Burns, D. K., Sinclair, R. R., & Sliter, M. (2017). Amazon Mechanical Turk in organizational psychology: An evaluation and practical recommendations. *Journal of Business and Psychology*, *32*(4), 347-361. https://doi.org/10.1007/s10869-016-9458-5

Cho, J. H. (2019, January 11). *"Diversity is being invited to the party; inclusion is being asked to dance," Verna Myers tells Cleveland Bar.* Cleveland.com. https://www.cleveland.com/business/2016/05/diversity_is_being_invited_to.html

Chung, B. G., Ehrhart, K. H., Shore, L. M., Randel, A. E., Dean, M. A., & Kedharnath, U. (2020). Work group inclusion: test of a scale and model. *Group & Organization Management*, *45*(1), 75-102. https://doi.org/10.1177%2F1059601119839858

Daft, R. L., & Lengel, R. H. (1986). Organizational information requirements, media richness and structural design. *Management Science*, *32*(5), 554-571. https://doi.org/10.1287/mnsc.32.5.554

Daft, R. L., & Macintosh, N. B. (1981). A tentative exploration into the amount and equivocality of information processing in organizational work units. *Administrative Science Quarterly, 26*(2), 207-224. https://doi.org/10.2307/2392469

Deci, E. L. & Ryan, R. M. (1991). A motivational approach to self: Integration in personality. In R. A. Dienstbier, & R. A. Dienstbier (Eds.), *Nebraska Symposium on Motivation, 1990: Perspectives on motivation* (pp. 237–288). University of Nebraska Press. https://doi.org/10.1207/S15327965PLI1104_01

Deci, E. L. & Ryan, R. M. (2000). The 'what' and 'why' of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11*(4), 227-268. https://doi.org/10.1207/S15327965PLI1104_01

Dubrovsky, V. J., Kiesler, S., & Sethna, B. N. (1991). The equalization phenomenon: Status effects in computer-mediated and face-to-face decision-making groups. *Human-Computer Interaction*, *6*(2), 119-146.

Eagly, A. H., Johannesen-Schmidt, M. C., & Van Engen, M. L. (2003). Transformational, transactional, and laissez-faire leadership styles: a meta-analysis comparing women and men. *Psychological Bulletin*, *129*(4), 569-591.

Edmondson A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly, 44*, 350–383. http://dx.doi.org/10.2307/2666999

Edwards, J. R. (2011). The fallacy of formative measurement. *Organizational Research Methods, 14*, 370-388. https://doi.org/10.1177%2F1094428110378369

Ellison, N. B., Gibbs, J. L., & Weber, M. S. (2015). The use of enterprise social network sites for knowledge sharing in distributed organizations: The role of organizational affordances. *American Behavioral Scientist, 59*(1), 103-123. https://doi.org/10.1177%2F0002764214540510

Ely, R. J. & Thomas, D. A. (2001). Cultural diversity at work: The effects of diversity perspectives on work group processes and outcomes. *Administrative Science Quarterly, 46*(2), 229-273. https://doi.org/10.2307%2F2667087

Ely, R. J. & Thomas, D. A. (2020). Getting serious about diversity: Enough already with the business case. *Harvard Business Review*. https://hbr.org/2020/11/getting-serious-about-diversity-enough-already-with-the-business-case?utm_medium=email&utm_source=newsletter_monthly&utm_campaign=womenatwork_not_activesubs&deliveryName=DM103318

Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G* Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39*(2), 175-191. https://doi.org/10.3758/BF03193146

Ferdman, B. M. (2014). *The practice of inclusion in diverse organizations: Toward a systemic and inclusive framework.* In B. M. Ferdman & B. R. Deane (Eds.), *The professional practice series. Diversity at work: The practice of inclusion* (p. 3–54). Jossey-Bass/Wiley. https://doi.org/10.1002/9781118764282.ch1

Ferdman, B. M. (2017). Paradoxes of inclusion: Understanding and managing the tensions of diversity and multiculturalism. *The Journal of Applied Behavioral Science*, *53*(2), 235-263. https://doi.org/10.1177%2F0021886317702608

Ferdman, B. M., Barrera, V., Allen, A. A., & Vuong, V. (2009). Inclusive behavior and the experience of inclusion. In B. G. Chung (Chair), *Inclusion in organizations: Measures, HR practices, and climate* [Conference session]. Annual Meeting of the Academy of Management, Chicago, IL, United States. https://aom.org/events/annual-meeting/past-annual-meetings

Ferdman, B. M. & Brody, S. E. (1996). Models of diversity training. In D. Landis & R.S. Bhagat (Eds.), *Handbook of intercultural training* (2nd ed., pp. 282-303). Sage.

Ferdman, B. M. & Davidson, M. N. (2002). A matter of difference-inclusion: What can I and my organization do about it? *The Industrial-Organizational Psychologist, 39*(4), 80-85.

Foley, K. O. (2021). Ethical leadership annotated bibliography. (ARI Research Note 2021-02). Fort Belvoir, VA: U.S. Army Research Institute for Behavioral and Social Sciences. https://apps.dtic.mil/sti/citations/AD1126517

Fosslien, L. & Duffy, M. W. (2020). How to combat zoom fatigue. *Harvard Business Review.* https://hbr.org/2020/04/how-to-combat-zoom-fatigue

Georgiadou, A., Olivas-Luján, M., Stone, D., & Bondarouk, T. (2020). Special issue call for papers: inclusion/exclusion in the digitalized workplace. *Human Resource Management Journal*. https://onlinelibrary.wiley.com/pb-assets/assets/17488583/HRMJ%20-Inclusion%20Exclu-sion%20CFP%202020-1586341080253.pdf

Goldberg, E. L. (2015). Leveraging technology to improve social dynamics. *Industrial and Organizational Psychology*, *8*(1), 100-102. https://doi.org/10.1017/iop.2015.5

Gibson, C. B. & Gibbs, J. L. (2006). Unpacking the concept of virtuality: The effects of geographic dispersion, electronic dependence, dynamic structure, and national diversity on team innovation. *Administrative Science Quarterly*, *51*(3), 451-495. https://doi.org/10.2189%2Fasqu.51.3.451

Gilson, L. L., Maynard, M. T., Jones Young, N., Vartiainen, M., & Hakonen, M. (2015). Virtual teams research: Ten years, ten themes, and ten opportunities. *Journal of Management, 41*, 1313-1337. http://dx.doi.org/10.1177/0149206314559946

Hancock, B., Williams, M., Manyika, J., Yee, L., & Wong, J. (2021). *Race in the workplace: The Black experience in the US private sector.* McKinsey. https://www.mckinsey.com/featured-insights/diversity-and-inclusion/Race-in-the-workplace-The-Black-experience-in-the-US-private-sector

Harms, P. D. & DeSimone, J. A. (2015). Caution! MTurk workers ahead—Fines doubled. *Industrial and Organizational Psychology, 8,* 183-190. https://doi.org/10.1017/iop.2015.23

Hastings, R. R. (2009). Diversity and inclusion are priorities for top executives, SHRM research finds. *Society for Human Resource Management.* https://www.shrm.org/resourcesandtools/hr-topics/behavioral-competencies/global-and-cultural-effectiveness/pages/diversityandinclusionaretop.aspx

Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (2nd ed.). The Guilford Press.

Hill, N. S. & Bartol, K. M. (2016). Empowering leadership and effective collaboration in geographically dispersed teams. *Personnel Psychology, 69*(1), 159-198. https://doi.org/10.1111/peps.12108

Hinkin, T. R. (1998). A brief tutorial on the development of measures for use in survey questionnaires. *Organizational Research Methods*, *1*(1), 104-121. https://doi.org/10.1177%2F109442819800100106

Hoch, J. E. & Kozlowski, S. W. (2014). Leading virtual teams: Hierarchical leadership, structural supports, and shared team leadership. *Journal of Applied Psychology*, *99*(3), 390-403. https://psycnet.apa.org/doi/10.1037/a0030264

Hollander, E. P. (2009). *Inclusive leadership: The essential leader-follower relationship*. Routledge.

Holt, K. & Seki, K. (2012). Global leadership: A developmental shift for everyone. *Industrial and Organizational Psychology*, *5*(2), 196-215. https://doi.org/10.1111/j.1754-9434.2012.01431.x

Internet World Stats (2020). *Internet growth statistics.* https://www.internetworldstats.com/emarketing.htm

Jackson, A. (2020). *New study: 3 in 5 U.S. employees have witnessed or experienced discrimination.* Glassdoor. https://www.glassdoor.com/blog/new-study-discrimination/

Jansen, W. S., Otten, S., van der Zee, K. I., & Jans, L. (2014). Inclusion: Conceptualization and measurement. *European Journal of Social Psychology*, *44*(4), 370-385. https://doi.org/10.1002/ejsp.2011

Jin, M., Lee, J., & Lee, M. (2017). Does leadership matter in diversity management? Assessing the relative impact of diversity policy and inclusive leadership in the public sector. *Leadership & Organization Development Journal, 38*(2), 303-319. https://doi.org/10.1108/LODJ-07-2015-0151

Kahn W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal, 33*(4), 692-724. https://doi.org/10.5465/256287

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%2F0149206305279113

Kirkman, B. L. & Rosen, B. (1999). Beyond self-management: Antecedents and consequences of team empowerment. *Academy of Management Journal, 42*, 58-74. https://doi.org/10.5465/256874

Ko, C., Ma, J., Bartnik, R., Haney, M. H., & Kang, M. (2018). Ethical leadership: An integrative review and future research agenda. *Ethics & Behavior*, *28*(2), 104-132. https://doi.org/10.1080/10508422.2017.1318069

Kozlowski, S. W. J. & Bell, B. S. (2012). Work groups and teams in organizations. In W. C. Borman, D. R. Ilgen, & R. J. Klimoski (Eds.), *Handbook of psychology: Industrial and organizational psychology* (Vol. 12, pp. 333-375). London: Wiley. https://doi.org/10.1002/9781118133880.hop212017

Landers, R. N. & Behrend, T. S. (2015). An inconvenient truth: arbitrary distinctions between organizational, Mechanical Turk, and other convenience samples. *Industrial Organizational Psychology: Perspectives on Science and Practice, 8*, 142-164. https://doi.org/10.1017/iop.2015.13

Landrine, H. & Klonoff, E. A. (1996). The schedule of racist events: A measure of racial discrimination and a study of its negative physical and mental consequences. *Journal of Black Psychology, 22*(2), 144-168. https://doi.org/10.1177%2F00957984960222002

Lanfranco, A. R., Castellanos, A. E., Desai, J. P., & Meyers, W. C. (2004). Robotic surgery: A current perspective. *Annals of Surgery, 239*(1), 14-21. https://dx.doi.org/10.1097%2F01.sla.0000103020.19595.7d

Larson, L., & DeChurch, L. A. (2020). Leading teams in the digital age: Four perspectives on technology and what they mean for leading teams. *The Leadership Quarterly*, *31*(1), 101377. https://doi.org/10.1016/j.leaqua.2019.101377

Leonardelli, G. J., Pickett, C. L., & Brewer, M. B. (2010). Optimal distinctiveness theory: A framework for social identity, social cognition, and intergroup relations. In *Advances in experimental social psychology* (Vol. 43, pp. 63-113). Academic Press.

Li, A. (2021). *Inclusive Leadership Questionnaire: The Design and Validation of a Theory-based Instrument* [Doctoral dissertation, Columbia University]. https://doi.org/10.7916/d8-y4d9-yy69

Liden, R. C., Erdogan, B., Wayne, S. J., & Sparrowe, R. T. (2006). Leader–member exchange, differentiation, and task interdependence: Implications for individual and group performance. *Journal of Organizational Behavior, 27*(6), 723–746. https://doi.org/10.1002/job.409

Mael, F. & Ashforth, B. E. (1992). Alumni and their alma mater: A partial test of the reformulated model of organizational identification. *Journal of Organizational Behavior, 13*(2), 103-123. https://doi.org/10.1002/job.4030130202

Maslow, A. H. (1943). A theory of human motivation. Psychological Review, 50(4), 370-396. https://doi.org/10.1037/h0054346

Mayer, D. M., Aquino, K., Greenbaum, R. L., & Kuenzi, M. (2012). Who displays ethical leadership, and why does it matter? An examination of antecedents and consequences of ethical leadership. *Academy of Management Journal*, *55*(1), 151-171. https://doi.org/10.5465/amj.2008.0276

Meade, A.W. & Craig, S. B. (2012). Identifying careless responses in survey data. *Psychological Methods, 17*(3), 437-455.

Merriam-Webster. (n.d.). Inclusive. *Merriam-Webster dictionary.* Retrieved August 28, 2020. From https://www.merriam-webster.com/dictionary/inclusive

Mitchell, R., Boyle, B., Parker, V., Giles, M., Chiang, V., & Joyce, P. (2015). Managing inclusiveness and diversity in teams: How leader inclusiveness affects performance through status and team identity. *Human Resource Management*, *54*(2), 217-239. https://doi.org/10.1002/hrm.21658

Mor Barak, M. E. (2000). The inclusive workplace: An ecosystems approach to diversity management. *Social Work, 45*(4), 339–353. https://doi.org/10.1093/sw/45.4.339

Mor Barak, M. E. (2005). *Managing diversity: Toward a globally inclusive workplace.* Sage.

Mor Barak, M. E. (2011). *Managing diversity: Toward a globally inclusive workplace* (2nd ed.). Sage.

Mor Barak, M. E., & Cherin, D. A. (1998). A tool to expand organizational understanding of workforce diversity: Exploring a measure of inclusion-exclusion. *Administration in Social Work*, *22*(1), 47-64. https://doi.org/10.1300/J147v22n01_04

Mor Barak, M. E., Cherin, D. A., & Berkman, S. (1998). Organizational and personal dimensions in diversity climate: Ethnic and gender differences in employee perceptions. *The Journal of Applied Behavioral Science*, *34*(1), 82-104. https://doi.org/10.1177%2F0021886398341006

Mor Barak, M. E., & Travis, D. J. (2010). Diversity and organizational performance. In Y. Hasenfeld (Ed.), *Human services as complex organizations* (2nd ed., pp. 341–378). Sage.

Mor Barak, M. E., & Travis, D. J. (2013). Socioeconomic trends: Broadening the diversity ecosystem. In Q. M. Roberson (Ed.), *The Oxford handbook of diversity and work* (pp. 393–418). Oxford University Press.

Napier, B. J., & Ferris, G. R. (1993). Distance in organizations. *Human Resource Management Review*, *3*(4), 321-357. https://doi.org/10.1016/1053-4822(93)90004-N

Nembhard, I. M., & Edmondson, A. C. (2006). Making it safe: The effects of leader inclusiveness and professional status on psychological safety and improvement efforts in health care teams. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, *27*(7), 941-966. https://doi.org/10.1002/job.413

Newman, D. A. (2014). Missing data: Five practical guidelines. *Organizational Research Methods, 17*(4), 372-411. https://doi.org/10.1177%2F1094428114548590

Niller, E. (2019). Can AI be a fair judge in court? Estonia thinks so. *Wired.* https://www.wired.com/story/can-ai-be-fair-judge-court-estonia-thinks-so/

Nishii, L. H. & Mayer, D. M. (2009). Do inclusive leaders help to reduce turnover in diverse groups? The moderating role of leader–member exchange in the diversity to turnover relationship. *Journal of Applied Psychology*, *94*(6), 1412-1426. https://psycnet.apa.org/doi/10.1037/a0017190

Ocker, R. J. (2007). A balancing act: The interplay of status effects on dominance in virtual teams. *IEEE Transactions on Professional Communication, 50*, 204–218. https://doi.org/10.1109/TPC.2007.902656

Offermann, L.R. & Coats, M. R. (2018). Implicit theories of leadership: stability and change over two decades. *The Leadership Quarterly, 29*(4), 513-522. https://doi.org/10.1016/j.leaqua.2017.12.003

Offermann, L.R. & Lanzo, L. A. (2020). Team inclusion over time. In B. M. Ferdman, J. Prime, & R. E. Riggio (Eds.), *Inclusive leadership: Transforming diverse lives, workplaces, and societies*. Routledge.

O'Leary, M. B. & Cummings, J. N. (2007). The spatial, temporal, and configurational characteristics of geographic dispersion in teams. *MIS Quarterly, 31*(3), 433-452. https://doi.org/10.2307/25148802

O'Leary, M. B., Wilson, J. M., & Metiu, A. (2014). Beyond being there: The symbolic role of communication and identification in the emergence of perceived proximity in geographically dispersed work. *MIS Quarterly, 38*(4), 1219-1234. https://www.jstor.org/stable/26627969

Pandey, E. (2020). *Corporate America's revolving door for Black employees.* Axios. https://www.axios.com/corporate-america-black-employee-turnover-rate-91563b14-c87b-435b-b157-0443c586735d.html

Parker, K., Horowitz, J. M., & Minkin. (2020). *How the coronavirus outbreak has – and hasn't – changed the way Americans work.* Pew Research Center. https://www.pewresearch.org/social-trends/2020/12/09/how-the-coronavirus-outbreak-has-and-include-changed-the-way-americans-work/

Paul, R., Drake, J. R., & Liang, H. (2016). Global virtual team performance: The effect of coordination effectiveness, trust, and team cohesion. *IEEE Transactions on Professional Communication, 59*(3), 186-202. https://doi.org/10.1109/TPC.2016.2583319

Pearce, C. L. & Conger, J. A. (2003). All those years ago: The historical underpinnings of shared leadership. In Pearce, C. L. (Ed.), *Shared leadership: Reframing the hows and whys of leadership* (pp. 1-13). Sage.

Peng, A. C. & Kim, D. A. (2020). Meta-analytic test of the differential pathways linking ethical leadership to normative conduct. *Journal of Organizational Behavior, 41*(4), 348-368. https://doi.org/10.1002/job.2427

Perry, E. L., Block, C. J., & Noumair, D. A. (2020). Leading in: Inclusive leadership, inclusive climates and sexual harassment. *Equality, Diversity and Inclusion: An International Journal, 40*(4), 430-447. https://doi.org/10.1108/EDI-04-2019-0120

Perry, E. L. & Li, A. (2020*). Inclusive leadership questionnaire: Development of a theory-based measure.* [Symposium]. The Society for Industrial and Organizational Psychology 2020 Virtual Conference. https://www.siop.org/Annual-Conference

Pierce, J.R. & Aguinis, H. (2013). The too-much-of-a-good-thing effect in management. *Journal of Management, 39*(2), 313-338. https://doi.org/10.1177%2F0149206311410060

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

Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research*, *42*(1), 185-227. https://doi.org/10.1080/00273170701341316

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

Qi, L., & Liu, B. (2017). Effects of inclusive leadership on employee voice behavior and team performance: the mediating role of caring ethical climate. *Frontiers in Communication*, *2*, 8. https://doi.org/10.3389/fcomm.2017.00008

Ragazzo, M. H. (2020). *Why should we add an E on the D&I scope?* LinkedIn. https://www.linkedin.com/pulse/why-should-we-add-e-di-scope-marilia-honorio-ragazzo-she-her-/

Raghuram, S., Hill, N. S., Gibbs, J. L., & Maruping, L. M. (2019). Virtual work: Bridging research clusters. *Academy of Management Annals*, *13*(1), 308-341. https://doi.org/10.5465/annals.2017.0020

Randel, A. E., Dean, M. A., Ehrhart, K. H., Chung, B., & Shore, L. (2016). Leader inclusiveness, psychological diversity climate and helping behaviors. *Journal of Managerial Psychology, 31*(1), 216-234. https://doi.org/10.1108/JMP-04-2013-0123

Randel, A. E., Galvin, B. M., Shore, L. M., Ehrhart, K. H., Chung, B. G., Dean, M. A., & Kedharnath, U. (2018). Inclusive leadership: Realizing positive outcomes through belongingness and being valued for uniqueness. *Human Resource Management Review*, *28*(2), 190-203. https://doi.org/10.1016/j.hrmr.2017.07.002

Rastetter, D., Mucha, A. & Schmucker, S. (2020). Digitalization of work: Barriers and benefits for equality, diversity, and inclusion. *Journal for Diversity Research and Management.* https://budrich.de/Zeitschriften/Call-for-Papers/C4P-ZDfm-2022-1-Digitalisierung-Arbeitswelt.pdf

Ratcliff, N. J., Key-Roberts, M., Simmons, M. J., & Jimnez-Rodrguez, M. (2018). *Inclusive Leadership Survey Item Development*. U.S. Army Research Institute for the Behavioral and Social Sciences. https://apps.dtic.mil/sti/pdfs/AD1060743.pdf

Ravid, D. M., Tomczak, D. L., White, J. C., & Behrend, T. S. (2020). EPM 20/20: A review, framework, and research agenda for electronic performance monitoring. *Journal of Management*, *46*(1), 100-126. https://doi.org/10.1177%2F0149206319869435

Revelle W (2022). *Psych: Procedures for Psychological, Psychometric, and Personality Research*. Northwestern University, Evanston, Illinois. R package version 2.2.3, https://CRAN.R-project.org/package=psych.

Roberson, Q. M. (2006). Disentangling the meanings of diversity and inclusion in organizations. *Group & Organization Management*, *31*(2), 212-236. https://doi.org/10.1177%2F1059601104273064

Roberson, Q. M., Ryan, A. M., & Ragins, B. R. (2017). The evolution and future of diversity at work. *Journal of Applied Psychology*, *102*(3), 483-499. https://psycnet.apa.org/doi/10.1037/apl0000161

Roberson, Q. & Perry, J. L. (2021). Inclusive leadership in thought and action: A thematic analysis. *Group & Organization Management, 0*(0), 1-24. https://doi.org/10.1177%2F10596011211013161

Rosseel, Y. (2012). Lavaan: An R package for structural equation modeling. *Journal of Statistical Software, 48*(2), 1-36. http://www.jstatsoft.org/v48/i02/

Sawyer, K. (2017 November). *Are diversity and inclusion dead? Why equity may be the next frontier at work.* Workr Beeing. https://workrbeeing.com/2017/11/20/are-diversity-and-inclusion-dead-why-equity-may-be-the-next-frontier-at-work/

Sawyer, K., Ferdman, B. M., Shore, L. M., Nishii, L. H., Gilrane, V. L., Sasso, T., & Solberg, E. G. (2020, June 16-30). *What is inclusion? Its past, present, and future.* The Society for Industrial and Organizational Psychology 2020 Virtual Conference. https://www.siop.org/Annual-Conference

Schoeller, J. (2020). Diversity and inclusion: A call for leadership to combat racism in the workplace. *Forbes.* https://www.forbes.com/sites/forbesbusinessdevelopmentcouncil/2020/08/14/diversity-and-inclusion-a-call-for-leadership-to-combat-racism-in-the-workplace/?sh=7b8503245f04

Schutz, W. C. (1958). *FIRO: A three-dimensional theory of interpersonal behavior*. Rinehart.

Schulze, J. & Krumm, S. (2017). The "virtual team player" A review and initial model of knowledge, skills, abilities, and other characteristics for virtual collaboration. *Organizational Psychology Review*, *7*(1), 66-95. https://doi.org/10.1177%2F2041386616675522

Sharma, P. N. & Kirkman, B. L. (2015). Leveraging leaders: A literature review and future lines of inquiry for empowering leadership research. *Group & Organization Management*, *40*(2), 193-237. https://doi.org/10.1177%2F1059601115574906

Sheehan, K. B. & Pittman, M. (2016). *Amazon's Mechanical Turk for academics: The HIT handbook for social science research*. Melvin & Leigh Publishers.

Shore, L. M., Cleveland, J. N., & Sanchez, D. (2018). Inclusive workplaces: A review and model. *Human Resource Management Review*, *28*(2), 176-189. https://doi.org/10.1016/j.hrmr.2017.07.003

Shore, L. M., Randel, A. E., Chung, B. G., Dean, M. A., Holcombe Ehrhart, K., & Singh, G. (2011). Inclusion and diversity in work groups: A review and model for future research. *Journal of Management*, *37*(4), 1262-1289. https://doi.org/10.1177%2F0149206310385943

Short, J., Williams, E., & Christie, B. (1976). *The social psychology of telecommunications.* Wiley.

Sinclair, S. (2021). Bystander reactions to workplace incivility: the role of gender and discrimination claims. *Europe's Journal of Psychology*, *17*(1), 134-144. https://dx.doi.org/10.5964%2Fejop.1675

Sinclair, U. (2001). *The Jungle.* Dover Publications, Inc.

Society for Human Resource Management. (2012). *SHRM survey findings: Virtual teams.* http://www.shrm.org/research/surveyfindings/articles/pages/virtualteams.aspx

Society for Human Resource Management (n.d.). *Introduction to the human resources discipline of diversity, equity and inclusion.* Retrieved December 10, 2020, from https://www.shrm.org/resourcesandtools/tools-and-samples/toolkits/pages/introdiversity.aspx

Srivastava, A., Bartol, K. M., & Locke, E. A. (2006). Empowering leadership in management teams: Effects on knowledge sharing, efficacy, and performance. *Academy of Management Journal, 49*(6), 1239-1251. https://doi.org/10.5465/amj.2006.23478718

Tabachnick, B. G. & Fidell, L. S. (2013). *Using multivariate statistics* (6th ed). Pearson Allyn & Bacon.

The George Washington University Office for Diversity, Equity, and Community Engagement (n.d.). *Diversity and inclusion defined.* Retrieved August 28, 2020, from https://diversity.gwu.edu/diversity-and-inclusion-defined

Thomas, D. A., Ely, R. J., Hewlett, S. A., & Williams, J. C. (2019). *HBR's 10 must reads on diversity.* Harvard Business Review.

Thorbecke, C. (2020). *As corporate America faces racial reckoning, here's how experts say change can be made.* ABC News. https://abcnews.go.com/Business/corporate-america-faces-racial-reckoning-heres-experts-change/story?id=71277643

Tippins, N. T., Beaty, J., Drasgow, F., Gibson, W. M., Pearlman, K., Segall, D. O., & Shepherd, W. (2006). Unproctored internet testing in employment settings. *Personnel Psychology*, *59*(1), 189-225. https://doi.org/10.1111/j.1744-6570.2006.00909.x

Towers-Clark, C. (2020, March 27). Will remote work become the new normal? *Forbes.* Retrieved December 10, 2020, from https://www.forbes.com/sites/charlestowersclark/2020/03/27/will-remote-work-become-the-new-normal/?sh=42ff9198cd1c

Treviño, L. K., Brown, M., & Hartman, L. P. (2003). A qualitative investigation of perceived executive ethical leadership: Perceptions from inside and outside the executive suite. *Human Relations, 56*(1), 5-37. https://doi.org/10.1177%2F0018726703056001448

Treviño, L. K., Hartman, L. P., & Brown, M. (2000). Moral person and moral manager: How executives develop a reputation for ethical leadership. *California Management Review, 42*(4), 128-142. https://doi.org/10.2307%2F41166057

Tsui, A. S., Egan, T. D., & O'Reilly III, C. A. (1992). Being different: Relational demography and organizational attachment. *Administrative Science Quarterly*, 549-579. https://doi.org/10.2307/2393472

Van Gils, S., Van Quaquebeke, N., Borkowski, J., & van Knippenberg, D. (2018). Respectful leadership: Reducing performance challenges posed by leader role incongruence and gender dissimilarity. *Human Relations*, *71*(12), 1590-1610. https://doi.org/10.1177%2F0018726718754992

Van Knippenberg, D. & Schippers, M. C. (2007). Work group diversity. *Annual Review of Psychology, 58*, 515-541. https://doi.org/10.1146/annurev.psych.58.110405.085546

Vespa, J., Armstrong, D. M., & Medina, L. (2018). Demographic turning points for the United States: Population projections for 2020 to 2060. *U.S. Census Bureau* Current Population Reports https://catalog.gpo.gov/F/?func=direct&doc_number=001061624&local_base=GPO01PUB

Whitford, T. & Moss, S. A. (2009). Transformational leadership in distributed work groups: The moderating role of follower regulatory focus and goal orientation. *Communication Research, 36*(6), 810-837. https://doi.org/10.1177%2F0093650209346800

Winters, M. F. (2014). From diversity to inclusion: An inclusion equation. In B. M. Ferdman, & B. R. Deane (Eds.), *Diversity at work: The practice of inclusion* (pp. 205-228). Jossey-Bass. https://doi.org/10.1002/9781118764282.ch7

Wilson, J. M., Boyer O'Leary, M., Metiu, A., & Jett, Q. R. (2008). Perceived proximity in virtual work: Explaining the paradox of far-but-close. *Organization Studies*, *29*(7), 979-1002. https://doi.org/10.1177%2F0170840607083105

World Economic Forum. (2020, March 21). Working from home was a luxury for the relatively affluent before coronavirus – not anymore. *World Economic Forum.* Retrieved December 10, 2020, from https://www.weforum.org/agenda/2020/03/working-from-home-coronavirus-workers-future-of-work/

Xiaotao, Z., Yang, X., Diaz, I., & Yu, M. (2018). Is too much inclusive leadership a good thing? An examination of curvilinear relationship between inclusive leadership and employees' task performance. *International Journal of Manpower, 39*(7), 882-895. https://doi.org/10.1108/IJM-01-2017-0011

Yentes, R. D., & Wilhelm, F. (2021). Careless: Procedures for computing indices of careless responding (R package version 1.2.1) [Computer software]. The Comprehensive R Archive Network. https://cran.r-project.org/web/packages/careless/index.html

Zohar, D., & Luria, G. (2004). Climate as a social-cognitive construction of supervisory safety practices: scripts as proxy behavior patterns. *Journal of Applied Psychology, 89*(2)*,* 322-333. https://doi.org/10.1037/0021-90410.89.2.322

Table 1

Confirmatory Factor Analysis Results for Multidimensional Constructs (Inclusive Leadership and Workgroup Inclusion) and Discriminant Validity of Main Study Variables

Measure	x^2	*df*	*p*	RMSEA (90% CI)	CFI	TLI	SRMR
Inclusive Leadership							
25 items: 1 factor	723.90	275	.000	.084 (.077-.092)**	.871	.859	.059
25 items: 4 factors (based on theoretical dimensions)	558.50	269	.000	.068 (.060-.076)**	.917	.907	.049
25 items: 3 factors (based on Li's [2021] sample)	694.01	272	.000	.082 (.075-.090)**	.878	.866	.058
25 items: 3 factors (based on EFA results)	519.47	272	.000	.063 (.055-.071)**	.929	.921	.048
12 items: 3 factors (based on EFA results) [a]	86.43	51	.001	.054 (.034-.074)**	.973	.965	.037
WG Inclusion [b]	30.80	34	.625	.000 (.000-.040)	1.00	1.00	.025
Total [c]	4327.98	2393	.000	.061 (.058-.064)**	.838	.832	.070
Inclusive Leadership & WG Inclusion	4666.28	2399	.000	.066 (.063-.069)**	.811	.804	.075
Inclusive Leadership & L-F Perceived Proximity	4937.41	2399	.000	.070 (.067-.073)**	.788	.780	.083
WG Identification & WG Inclusion	4368.86	2399	.000	.062 (.059-.065)**	.835	.829	.070

Note. EFA = exploratory factor analysis; RMSEA = Root Mean Square Error of Approximation; CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; SRMR = Standardized Root Mean Square Residual; L-F = leader-follower; WG = workgroup.

[a] Results for the EFA-suggested 3 factor solution with 13 items removed due to cross-loadings.

[b] Results for Workgroup Identification are for the 2 hypothesized dimensions.

[c] Total indicates the results from a CFA including all 7 variables (Inclusive Leadership, Perceived Proximity to Leader, Workgroup Identification, Task Performance, Helping Behavior, Workgroup Inclusion, and Workgroup Discrimination) as individual factors. Inclusive Leadership & WG Inclusion indicates the results from a CFA with only 6 factors where Inclusive Leadership and Workgroup Inclusion are included as a single factor. Inclusive Leadership & L-F Perceived Proximity indicates the results from a CFA with only 6 factors where Inclusive Leadership and Leader-Follower Perceived Proximity are included as a single factor. WG Identification & WG Inclusion indicates the results from a CFA with only 6 factors where Identification with Workgroup and Workgroup Inclusion are included as a single factor.

*$p < .05$. **$p < .01$.

Table 2a

Key Variables Descriptive Statistics and Bivariate Correlations

Variables	*M*	*SD*	*N*	1	2	3	4	5	6	7	8	9	10
1. Inclusive Leadership	4.56	.98	243										
2. WG Identification	3.89	.67	242	.62**									
3. Task Performance	4.23	.59	244	.60**	.59**								
4. Helping Behavior	3.88	.69	243	.49**	.52**	.61**							
5. WG Inclusion	4.03	.59	243	.71**	.71**	.74**	.56**						
6. WG Discrimination	2.62	1.68	244	-.02	.05	-.19**	.04	-.02					
7. L-F Dispersion	.76	.43	244	-.02	.07	.01	.11	.02	.21**				
8. L-F CMC	.72	.31	243	.06	-.01	-.09	-.04	-.01	.19**	-.25*			
9. L-F Perceived Proximity	3.58	.80	244	.67**	.52**	.36**	.35**	.53**	.26**	.07	.07		
10. WG Dispersion	.31	.46	244	.01	.03	.17**	.09	.13*	-.44**	.25**	-.48**	-.17**	
11. WG CMC	.68	.33	243	.06	.00	-.09	-.05	-.05	.27**	-.23*	.84**	.11	-.52**

Note. N = the number of participants out of the total 244 for which data is available for a given variable; WG = workgroup; L-F = leader-follower; CMC = Computer-mediate communication.
*$p < .05$. ** $p < .01$.

Table 2b

Control Variable Descriptive Statistics and Bivariate Correlations between Controls and Key Variables

Variables	*M*	*SD*	*N*	1	2	3	4	5	6	7	8	9	10	11
14. Need for Inclusion	3.65	.59	241	.45**	.56**	.45**	.36**	.51**	-.22**	-.06	.02	.35**	.09	-.05
15. COVID	2.69	.97	243	.08	.14*	.04	.11	.13*	.19**	-.15*	.17*	.09	-.24**	.21*
16. Leader Mgmt. Level	2.10	.68	243	.15*	.18**	.30**	.13	.22**	.04	-.03	-.01	.14*	-.02	-.02
17. WG Interdependence	3.70	.98	244	.23**	.27**	.43**	.39**	.34**	-.35**	-.01	-.21**	.07	.17**	-.23*
18. WG Diversity	3.31	.96	244	.23**	.15*	.17**	.15*	.26**	.17*	.03	.08	.24**	-.09	.09
19. Gender	.41	.49	244	.06	.15*	.05	.05	.09	-.05	-.08	.07	.04	.03	.08
20. Age	37.97	11.92	242	.05	.12	.08	.10	.14*	.04	-.03	.02	.07	-.03	.05
21. Sexual Orientation	.90	.30	244	-.03	-.13*	-.03	-.02	-.09	-.17**	-.02	-.08	-.04	.04	-.12

Note. N = the number of participants out of the total 244 for which data is available for a given variable; Mgmt = management; 1 = Inclusive Leadership; 2 = Workgroup Identification; 3 = Task Performance; 4 = Helping Behavior; 5 = Workgroup Inclusion; 6 = Workgroup Discrimination; 7 = Leader-Follower Dispersion; 8 = Leader-Follower CMC Use; 9 = Leader-Follower Perceived Proximity; 10 = Workgroup Dispersion; 11 = Workgroup CMC Use.
*$p < .05$. ** $p < .01$.

Table 3a

Simple Mediation Results Predicting Task Performance from Inclusive Leadership via Workgroup Identification

Predicting Workgroup Identification (Mediator)						
	Coeff.	*SE*	*t*	*p*	LLCI	ULCI
Intercept	.55	.28	1.97	.050	-.00	1.10
Independent Variable: Inclusive Leadership	.43**	.06	7.33	.000	.31	.54
Controls						
Need for Inclusion	.39**	.06	6.10	.000	.26	.51
COVID-related Change in Work Environment	.03	.03	.93	.352	-.04	.10
Leader Management Level	.04	.05	.74	.458	-.06	.13
Workgroup Interdependence	.04	.03	1.15	.252	-.03	.11
Workgroup Diversity	.00	.03	.00	.999	-.07	.10
Gender	.10	.06	1.56	.121	-.03	.22
Age	.00	.00	1.65	.101	-.00	.01
Sexual Orientation	-.21	.11	-1.97	.051	-.42	.00
Predicting Task Performance (Dependent Variable)						
	Coeff.	*SE*	*t*	*p*	LLCI	ULCI
Intercept	1.19**	.24	4.93	.000	.71	1.66
Independent Variable: Inclusive Leadership (Direct effect)	.28**	.06	5.05	.000	.17	.39
Mediator: Workgroup Identification	.24**	.06	4.24	.000	.13	.36
Controls						
Need for Inclusion	.11	.06	1.79	.075	-.01	.22
COVID-related Change in Work Environment	-.04	.03	-1.32	.188	-.09	.02
Leader Management Level	.13**	.04	3.26	.001	.05	.21
Workgroup Interdependence	.13**	.03	4.30	.000	.07	.18
Workgroup Diversity	.02	.03	.73	.464	-.04	.08
Gender	.02	.06	.29	.776	-.09	.12
Age	-.00	.00	-.34	.734	-.01	.00
Sexual Orientation	-.03	.09	-.36	.720	-.22	.15

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

Table 3b

Simple Mediation Results Predicting Helping Behavior from Inclusive Leadership via Workgroup Identification

Predicting Workgroup Identification (Mediator)						
	Coeff.	*SE*	*t*	*p*	LLCI	ULCI
Intercept	.53	.28	1.91	.057	-.02	1.08
Independent Variable: Inclusive Leadership	.44**	.06	7.49	.000	.33	.56
Controls						
Need for Inclusion	.38**	.06	5.96	.000	.25	.51
COVID-related Change in Work Environment	.03	.03	.78	.434	-.04	.09
Leader Management Level	.04	.05	.76	.448	-.06	.13
Workgroup Interdependence	.04	.03	1.10	.274	-.03	.11
Workgroup Diversity	-.00	.03	-.10	.921	-.07	.06
Gender	.10	.06	1.65	.101	-.02	.23
Age	.01	.00	1.74	.084	-.00	.01
Sexual Orientation	-.21	.11	-1.95	.052	-.42	.00
Predicting Helping Behavior (Dependent Variable)						
	Coeff.	*SE*	*t*	*p*	LLCI	ULCI
Intercept	.86*	.33	2.61	.010	.21	1.51
Independent Variable: Inclusive Leadership (Direct effect)	.24**	.08	3.06	.003	.08	.40
Mediator: Workgroup Identification	.36**	.08	4.56	.000	.20	.51
Controls						
Need for Inclusion	-.01	.08	-.06	.950	-.16	.15
COVID-related Change in Work Environment	.00	.04	.06	.952	-.08	.08
Leader Management Level	-.04	.06	-.78	.437	-.15	.07
Workgroup Interdependence	.17**	.04	4.15	.000	.09	.25
Workgroup Diversity	.04	.04	1.13	.259	-.03	.12
Gender	.03	.08	.39	.700	-.12	.18
Age	.00	.00	.63	.528	-.00	.01
Sexual Orientation	-.02	.13	-.13	.896	-.27	.23

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

Table 4a

Moderated Mediation Results for the Moderation Effect of Leader-Follower Dispersion When Predicting Task Performance

Predicting Workgroup Identification (Mediator)						
	Coeff.	*SE*	*t*	*p*	LLCI	ULCI
Intercept	1.21**	.39	3.08	.002	.44	1.99
Independent Variable: Inclusive Leadership	.18	.10	1.91	.057	-.01	.37
Moderator: Leader-Follower Dispersion	-1.04*	.41	-2.55	.011	-1.85	-.24
Interaction: Inclusive Leadership * Leader-Follower Dispersion	.32**	.11	3.07	.002	.12	.53
Conditional effects						
Leader-Follower Collocated	.51**	.06	8.03	.000	.38	.63
Leader-Follower Dispersed	.18	.10	1.91	.057	-.01	.37
Controls						
Need for Inclusion	.40**	.06	6.47	.000	.28	.52
COVID-related Change in Work Environment	.06	.03	1.77	.078	-.01	.12
Leader Management Level	.04	.05	.77	.442	-.05	.12
Workgroup Interdependence	.04	.03	1.28	.202	-.02	.11
Workgroup Diversity	.00	.03	-.08	.937	-.07	.06
Gender	.12	.06	1.97	.050	.00	.24
Age	.00	.00	1.42	.153	-.01	.01
Sexual Orientation	-.20	.10	-1.94	.054	-.41	.00
Predicting Task Performance (Dependent Variable)						
	Coeff.	*SE*	*t*	*p*	LLCI	ULCI
Intercept	1.19**	.24	4.93	.000	.71	1.66
Independent Variable: Inclusive Leadership (Direct effect)	.28**	.06	5.05	.000	.17	.39
Mediator: Workgroup Identification	.24**	.06	4.24	.000	.13	.36
Controls						
Need for Inclusion	.11	.06	1.79	.075	-.02	.22
COVID-related Change in Work Environment	-.04	.03	-1.32	.188	-.09	.02
Leader Management Level	.13**	.04	3.26	.001	.05	.21
Workgroup Interdependence	.13**	.03	4.30	.000	.07	.18
Workgroup Diversity	.02	.03	.73	.464	-.04	.08
Gender	.02	.06	.28	.776	-.09	.12
Age	.00	.00	-.34	.734	-.01	.00
Sexual Orientation	-.03	.09	-.36	.720	-.22	.15

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

Table 4b

Moderated Mediation Results for the Moderation Effect of Leader-Follower Dispersion When Predicting Helping Behavior

Predicting Workgroup Identification (Mediator)						
	Coeff.	*SE*	*t*	*p*	LLCI	ULCI
Intercept	1.23**	.39	3.14	.002	.46	2.01
Independent Variable: Inclusive Leadership	.19*	.10	2.01	.046	.00	.38
Moderator: Leader-Follower Dispersion	-1.10**	.41	-2.68	.009	-1.90	-.29
Interaction: Inclusive Leadership * Leader-Follower Dispersion	.34**	.11	3.19	.002	.13	.55
Conditional effects						
Low Leader-Follower Dispersion (Collocated)	.53**	.06	8.21	.000	.40	.65
High Leader-Follower Dispersion (Dispersed)	.19*	.10	2.01	.046	.00	.38
Controls						
Need for Inclusion	.39**	.06	6.32	.000	.26	.51
COVID-related Change in Work Environment	.05	.03	1.61	.109	-.01	.12
Leader Management Level	.04	.05	.79	.433	-.05	.12
Workgroup Interdependence	.04	.03	1.23	.220	-.03	.11
Workgroup Diversity	-.01	.03	-.18	.858	-.07	.06
Gender	.13*	.06	1.51	.040	.01	.25
Age	.00	.00	1.52	. 132	.00	.01
Sexual Orientation	-.20	.10	-1.93	.060	-.40	.00
Predicting Helping Behavior (Dependent Variable)						
	Coeff.	*SE*	*t*	*p*	LLCI	ULCI
Intercept	.86*	.33	2.61	.010	.21	1.50
Independent Variable: Inclusive Leadership (Direct effect)	.24**	.08	3.06	.003	.08	.39
Mediator: Workgroup Identification	.36**	.08	4.56	.000	.20	.51
Controls						
Need for Inclusion	-.01	.08	-.06	.950	-.16	.15
COVID-related Change in Work Environment	.00	.04	.06	.952	-.08	.08
Leader Management Level	-.04	.05	-.78	.437	-.15	.07
Workgroup Interdependence	.17**	.04	4.15	.000	.09	.25
Workgroup Diversity	.04	.04	1.13	.260	-.03	.12
Gender	.03	.07	.39	.700	-.12	.18
Age	.00	.00	.63	.528	.00	.08
Sexual Orientation	-.02	.13	-.13	.896	-.27	.23

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

Table 5

Simple Mediation Results Predicting the Probability of Workgroup Discrimination from Inclusive Leadership via Workgroup Inclusion

Predicting Workgroup Inclusion (Mediator)						
	Coeff.	*SE*	*t*	*p*	LLCI	ULCI
Intercept	.74**	.23	3.26	.001	.29	1.19
Independent Variable: Inclusive Leadership	.50**	.06	10.87	.000	.41	.59
Controls						
Need for Inclusion	.19**	.05	3.77	.000	.09	.30
COVID-related Change in Work Environment	.01	.03	.35	.725	-.04	.06
Leader Management Level	.05	.04	1.32	.188	-.03	.13
Workgroup Interdependence	.08**	.03	2.86	.005	.03	.14
Workgroup Diversity	.06*	.03	2.10	.037	.00	.11
Gender	.03	.05	.65	.517	-.07	.14
Age	.00*	.00	1.99	.048	.00	.01
Sexual Orientation	-.11	.09	-1.33	.184	-.28	.05
Predicting Workgroup Discrimination (Dependent Variable)						
	Coeff.	*SE*	*t*	*p*	LLCI	ULCI
Intercept	5.09**	1.67	3.04	.002	1.81	8.37
Independent Variable: Inclusive Leadership (Direct effect)	-.39	.38	-1.01	.312	-1.14	.36
Mediator: Workgroup Inclusion	-.17	.43	-.40	.689	-1.02	.67
Controls						
Need for Inclusion	-.67*	.33	-2.03	.043	-1.31	-.02
COVID-related Change in Work Environment	.58**	.18	3.28	.001	.23	.92
Leader Management Level	.24	.25	.93	.351	-.26	.73
Workgroup Interdependence	-.57**	.20	-2.88	.004	-.96	-.18
Workgroup Diversity	.19	.17	1.09	.276	-.15	.53
Gender	.18	.34	.54	.591	-.48	.86
Age	.03	.02	1.82	.069	-.00	.06
Sexual Orientation	-1.15	.75	-1.53	.126	-2.62	.32

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

Table 6

Moderated Mediation Results for the Moderation Effect of Leader-Follower Dispersion When Predicting Workgroup Discrimination

Predicting Workgroup Inclusion (Mediator)						
	Coeff.	*SE*	*t*	*p*	LLCI	ULCI
Intercept	1.41	.31	4.53	.000	0.79	2.02
Independent Variable: Inclusive Leadership	.30	.07	4.07	.000	0.15	0.44
Moderator: Leader-Follower Dispersion	-1.03	.32	-3.20	.002	-1.67	-0.40
Interaction: Inclusive Leadership * Leader-Follower Dispersion	.29	.08	3.46	.001	0.13	0.46
Conditional effects						
Leader-Follower Collocated	.30	.07	4.07	.000	0.15	0.44
Leader-Follower Dispersed	.59	.05	11.28	.000	0.48	0.69
Controls						
Need for Inclusion	.19	.05	3.85	.000	0.09	0.29
COVID-related Change in Work Environment	.02	.03	.88	.381	-0.03	0.08
Leader Management Level	.05	.04	1.43	.154	-0.02	0.13
Workgroup Interdependence	.08	.03	2.98	.003	0.03	0.14
Workgroup Diversity	.06	.03	2.15	.033	0.01	0.11
Gender	.05	.05	.92	.360	-0.05	0.15
Age	.00	.00	1.70	.092	-0.00	0.01
Sexual Orientation	-.09	.08	-1.11	.271	-0.26	0.07
Predicting Workgroup Discrimination (Dependent Variable)						
	Coeff.	*SE*	*t*	*p*	LLCI	ULCI
Intercept	5.18*	2.39	2.17	.030	.49	9.86
Independent Variable: Inclusive Leadership (Direct effect)	-.55	.50	-1.10	.272	-1.54	.43
Mediator: Workgroup Inclusion	-.33	.46	-.72	.469	-1.23	.57
Moderator: Leader-Follower Dispersion	-.18	2.28	-.08	.938	-4.65	4.29
Interaction: Inclusive Leadership * Leader-Follower Dispersion	.28	.58	.49	.626	-.86	1.43
Conditional effects						
Leader-Follower Collocated	-.55	.50	-1.10	.272	-1.54	.43
Leader-Follower Dispersed	-.27	.47	-.58	.564	-1.18	.64
Controls						
Need for Inclusion	-.63	.33	-1.92	.055	-1.28	.01
COVID-related Change in Work Environment	.70**	.19	3.68	.000	.33	1.07
Leader Management Level	.25	.25	.97	.334	-.25	.74
Workgroup Interdependence	-.57**	.20	-2.80	.005	-.97	-.17
Workgroup Diversity	.20	.18	1.12	.263	-.15	.55
Gender	.26	.35	.75	.455	-.43	.95
Age	.03	.02	1.88	.060	-.00	.07
Sexual Orientation	-1.25	.78	-1.60	.110	-2.78	.28

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

Table 7

Communication Mediums Rank Ordered by Media Richness Theory and Subjective Ratings of Informational Value

	Objective Media Richness	Subjective Informational Value
Richest / Most Value	1. Face-to-face meetings	1. Face-to-face meetings
↑	2. Video conference	2. Text messaging, instant message, or virtual chat
↕	3. Telephone conversations	3. Email exchanges
↕	4. Text messaging, instant message, or virtual chat	4. Telephone conversations
↓	5. Email exchanges	5. Video conference
Leanest / Least Value	6. Discussion board discussions & social media	6. Discussion board discussions & social media

Note. Objective media richness rank order is based on media richness theory (Daft & Lengel, 1986). Subjective informational value rank order is based on results from the current study.

Table 8a

Moderated Mediation Results for the Moderation Effect of Leader-Follower Video Conference Technology Use When Predicting Task Performance

Predicting Workgroup Identification (Mediator)						
	Coeff.	*SE*	*t*	*p*	LLCI	ULCI
Intercept	.43	.29	1.51	.132	-.13	.99
Independent Variable: Inclusive Leadership	.49**	.07	7.48	.000	.36	.61
Moderator: Leader-Follower Video Use	.00*	.00	2.13	.035	.00	.00
Interaction: Inclusive Leadership * Leader-Follower Video Use	-.00*	.00	-2.03	.044	-.00	.00
Controls						
Need for Inclusion	.37**	.06	5.87	.000	.25	.50
COVID-related Change in Work Environment	.03	.03	.76	.450	-.04	.09
Leader Management Level	.04	.05	.79	.431	-.06	.13
Workgroup Interdependence	.04	.03	1.09	.276	-.03	.11
Workgroup Diversity	-.01	.03	-.34	.733	-.08	.06
Gender	.11	.06	1.75	.082	-.01	.24
Age	.00	.00	1.45	.148	-.00	.01
Sexual Orientation	-.20	.11	-1.90	.059	-.41	.01
Predicting Task Performance (Dependent Variable)						
	Coeff.	*SE*	*t*	*p*	LLCI	ULCI
Intercept	1.18**	.24	4.89	.000	.71	1.66
Independent Variable: Inclusive Leadership (Direct effect)	.28**	.06	5.04	.000	.17	0.39
Mediator: Workgroup Identification	.24**	.06	4.24	.000	.13	0.36
Controls						
Need for Inclusion	.11	.06	1.78	.077	-.01	0.22
COVID-related Change in Work Environment	-.04	.03	-1.27	.205	-.09	0.02
Leader Management Level	.13**	.04	3.24	.001	.05	0.21
Workgroup Interdependence	.13**	.03	4.25	.000	.07	0.18
Workgroup Diversity	.02	.03	.75	.455	-.04	0.08
Gender	.02	.06	.32	.747	-.09	0.13
Age	-.00	.00	-.29	.771	-.01	0.00
Sexual Orientation	-.03	.09	-.34	.735	-.21	0.15

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

Table 8b

Moderated Mediation Results for the Moderation Effect of Leader-Follower Video Conference Technology Use When Predicting Helping Behavior

Predicting Workgroup Identification (Mediator)						
	Coeff.	*SE*	*t*	*p*	LLCI	ULCI
Intercept	.42	.28	1.48	.141	-.14	.98
Independent Variable: Inclusive Leadership	.50**	.07	7.60	.000	.37	.63
Moderator: Leader-Follower Video Use	.00*	.00	2.01	.046	.00	.00
Interaction: Inclusive Leadership * Leader-Follower Video Use	-.00	.00	-1.93	.055	-.00	.00
Controls						
Need for Inclusion	.37**	.06	5.75	.000	.21	.49
COVID-related Change in Work Environment	.02	.03	.65	.516	-.05	.09
Leader Management Level	.04	.05	.80	.424	-.06	.13
Workgroup Interdependence	.04	.03	1.05	.296	-.03	.10
Workgroup Diversity	-.01	.03	-.41	.682	-.08	.05
Gender	.12	.06	1.81	.071	-.01	.24
Age	.00	.00	1.54	.125	-.00	.01
Sexual Orientation	-.20	.11	-1.89	.060	-.41	.01
Predicting Helping Behavior (Dependent Variable)						
	Coeff.	*SE*	*t*	*p*	LLCI	ULCI
Intercept	.86*	.33	2.61	.010	.21	1.51
Independent Variable: Inclusive Leadership (Direct effect)	.24**	.08	3.06	.003	.08	.39
Mediator: Workgroup Identification	.36**	.08	4.55	.000	.20	.51
Controls						
Need for Inclusion	-.01	.08	-.06	.950	-.16	.15
COVID-related Change in Work Environment	.00	.04	.06	.953	-.08	.08
Leader Management Level	-.04	.06	-.78	.438	-.15	.07
Workgroup Interdependence	.17**	.04	4.13	.000	.09	.25
Workgroup Diversity	.04	.04	1.13	.261	-.03	.12
Gender	.03	.08	.38	.703	-.12	.18
Age	.00	.00	.63	.531	-.00	.01
Sexual Orientation	-.02	.13	-.13	.896	-.27	.23

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

Table 9a

Moderated Mediation Results for the Moderation Effect of Workgroup Video Conference Technology Use When Predicting Task Performance

Predicting Workgroup Identification (Mediator)						
	Coeff.	*SE*	*t*	*p*	LLCI	ULCI
Intercept	.39	.29	1.36	.175	-.18	.95
Independent Variable: Inclusive Leadership	.48**	.06	7.72	.000	.36	.60
Moderator: Workgroup Video Use	.09*	.04	2.03	.043	.00	.17
Interaction: Inclusive Leadership * Workgroup Video Use	-.02*	.01	-2.28	.023	-.04	-.00
Controls						
Need for Inclusion	.39	.06	6.14	.000	.26	.51
COVID-related Change in Work Environment	.04	.03	1.10	.274	-.03	.11
Leader Management Level	.03	.05	.74	.463	-.06	.13
Workgroup Interdependence	.04	.03	1.12	.264	-.03	.11
Workgroup Diversity	-.01	.03	-.35	.727	-.08	.05
Gender	.10	.06	1.60	.111	-.02	.23
Age	.00	.00	1.40	.164	-.00	.01
Sexual Orientation	-.20	.11	-1.84	.067	-.41	.01
Predicting Task Performance (Dependent Variable)						
	Coeff.	*SE*	*t*	*p*	LLCI	ULCI
Intercept	1.18**	.24	4.89	.000	.71	1.66
Independent Variable: Inclusive Leadership (Direct effect)	0.28**	.06	5.01	.000	.17	.39
Mediator: Workgroup Identification	0.24**	.06	4.21	.000	.13	.36
Controls						
Need for Inclusion	.11	.06	1.78	.077	-.01	.22
COVID-related Change in Work Environment	-.04	.03	-1.25	.213	-.09	.02
Leader Management Level	.13**	.04	3.24	.001	.05	.21
Workgroup Interdependence	.13**	.03	4.26	.000	.07	.18
Workgroup Diversity	.02	.03	.74	.462	-.04	.08
Gender	.02	.06	.34	.734	-.09	.13
Age	-.00	.00	-.30	.768	-.01	.00
Sexual Orientation	-.03	.09	-.35	.725	-.22	.15

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

Table 9b

Moderated Mediation Results for the Moderation Effect of Workgroup Video Conference Technology Use When Predicting Helping Behavior

Predicting Workgroup Identification (Mediator)						
	Coeff.	*SE*	*t*	*p*	LLCI	ULCI
Intercept	.39	.29	1.35	.178	-.18	.95
Independent Variable: Inclusive Leadership	.49**	.06	7.82	.000	.36	.61
Moderator: Workgroup Video Use	.08	.04	1.80	.073	-.01	.17
Interaction: Inclusive Leadership * Workgroup Video Use	-.02*	.01	-2.06	.041	-.04	-.00
Controls						
Need for Inclusion	.38**	.06	6.01	.000	.26	.51
COVID-related Change in Work Environment	.03	.03	1.00	.317	-.03	.10
Leader Management Level	.04	.05	.75	.456	-.06	.13
Workgroup Interdependence	.04	.03	1.07	.285	-.03	.10
Workgroup Diversity	-.01	.03	-.42	.676	-.08	.05
Gender	.11	.06	1.65	.101	-.02	.23
Age	.00	.00	1.48	.140	-.00	.01
Sexual Orientation	-.20	.11	-1.83	.069	-.41	.02
Predicting Helping Behavior (Dependent Variable)						
	Coeff.	*SE*	*t*	*p*	LLCI	ULCI
Intercept	.87**	.33	2.64	.009	.22	1.52
Independent Variable: Inclusive Leadership (Direct effect)	.23**	.08	3.00	.003	.08	.39
Mediator: Workgroup Identification	.36**	.08	4.51	.000	.20	.51
Controls						
Need for Inclusion	-.00	.08	-.05	.958	-.16	.16
COVID-related Change in Work Environment	.00	.04	.10	.919	-.07	.08
Leader Management Level	-.04	.06	-.77	.444	-.15	.07
Workgroup Interdependence	.17**	.04	4.18	.000	.09	.25
Workgroup Diversity	.04	.04	1.10	.273	-.03	.12
Gender	.03	.08	.43	.670	-.12	.18
Age	.00	.00	.62	.539	-.00	.01
Sexual Orientation	-0.021	0.1267	-0.1657	0.8686	-0.2708	0.2288

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

Table 10

Moderated Mediation Results for the Moderation Effect of Workgroup Telephone Technology Use When Predicting Workgroup Discrimination

Predicting Workgroup Inclusion (Mediator)						
	Coeff.	*SE*	*t*	*p*	LLCI	ULCI
Intercept	.35	.27	1.33	.186	-.17	.88
Independent Variable: Inclusive Leadership	.57**	.05	10.75	.000	.46	.67
Moderator: Workgroup Telephone Use	.15*	.06	2.53	.012	.03	.27
Interaction: Inclusive Leadership * Workgroup Telephone Use	-.04**	.02	-2.68	.008	-.07	-.01
Controls						
Need for Inclusion	.20**	.05	4.00	.000	.10	.31
COVID-related Change in Work Environment	.02	.03	.61	.544	-.04	.07
Leader Management Level	.06	.04	1.68	.094	-.01	.14
Workgroup Interdependence	.07*	.03	2.53	.012	.02	.13
Workgroup Diversity	.07*	.03	2.50	.013	.01	.12
Gender	.02	.05	.43	.670	-.08	.13
Age	.01*	.00	2.23	.027	.00	.01
Sexual Orientation	-.08	.09	-.94	.347	-.25	.09
Predicting Workgroup Discrimination (Dependent Variable)						
	Coeff.	*SE*	*t*	*p*	LLCI	ULCI
Intercept	4.42*	1.92	2.30	.021	.66	8.18
Independent Variable: Inclusive Leadership (Direct effect)	-.25	.43	-.59	.558	-1.09	.59
Mediator: Workgroup Inclusion	-.20	.44	-.44	.659	-1.06	.67
Moderator: Workgroup Telephone Use	.43	.54	.80	.425	-.63	1.49
Interaction: Inclusive Leadership * Workgroup Telephone Use	-.09	.13	-.69	.488	-.36	.17
Controls						
Need for Inclusion	-.62	.33	-1.86	.063	-1.27	.03
COVID-related Change in Work Environment	.57**	.18	3.18	.002	.22	.92
Leader Management Level	.24	.26	.95	.341	-.26	.75
Workgroup Interdependence	-.56**	.20	-2.84	.005	-.95	-.17
Workgroup Diversity	.19	.18	1.10	.271	-.15	.54
Gender	.15	.35	.45	.655	-.52	.83
Age	.03	.02	1.66	.097	-.01	.06
Sexual Orientation	-1.11	.75	-1.48	.138	-2.59	.36

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

Appendix A

List of Hypotheses

Inclusive Leadership and Follower Performance

1. Follower perceptions of inclusive leadership will be positively related to their (a) task performance and (b) helping behavior. – **Supported (see Tables 3a and 3b; Figures 3 and 4)**

2. Workgroup identification mediates the relationships between follower perceptions of inclusive leadership and their (a) task performance and (b) helping behavior. – **Supported (see Tables 3a and 3b; Figures 3 and 4)**

3. The positive relationship between inclusive leadership and follower workgroup identification will be negatively moderated by objective dispersion between leaders and followers such that inclusive leadership has but a stronger effect follower workgroup identification when there is less objective distance between individuals and their leader, but a weaker effect on follower workgroup identification when there is more objective distance between individuals and their leader. – **Supported (see Tables 4a and 4b)**

4. The positive relationship between inclusive leadership and follower workgroup identification will be negatively moderated by workgroup dispersion such that inclusive leadership has a weaker effect on follower workgroup identification when there is more objective distance between workgroup members, but a stronger effect when there is less objective distance between workgroup members. – **Not Supported**

5. The positive relationship between inclusive leadership and follower workgroup identification will be positively moderated by a follower's perceived proximity to their leader such that inclusive leadership has a stronger effect on follower workgroup identification when perceived proximity is higher (there is less subjective distance between leader and follower), but a weaker effect when perceived proximity is lower (there is more subjective distance between leader and follower). – **Not Supported**

6. The positive relationship between inclusive leadership and follower workgroup identification is negatively moderated by reliance on electronic media to communicate with one's leader such that inclusive leadership has a stronger effect on workgroup identification when leaders and follower communicate via electronic media relatively less frequently than when leaders and follower communicate via electronic media relatively more frequently. – **Not supported (see Tables 8a and 8b for exploratory analysis results)**

7. The positive relationship between inclusive leadership and follower workgroup identification is negatively moderated by reliance on electronic media to communicate with one's workgroup such that inclusive leadership has a stronger effect on workgroup identification when individuals rely on electronic media relatively less frequently than when they communicate with their workgroup via electronic media relatively more frequently. – **Not supported (see Tables 9a and 9b for exploratory analysis results)**

Inclusive Leadership and Workgroup Discrimination

8. Follower perceptions of inclusive leadership will be negatively related to workgroup discrimination. – **Not Supported**

9. The positive relationship between follower perceptions of inclusive leadership and workgroup discrimination is mediated by workgroup inclusion. – **Partially Supported (see Table 5)**

10. The positive relationships between inclusive leadership and (a) workgroup inclusion and (b) workgroup discrimination will be negatively moderated by objective dispersion between leaders and followers such that inclusive leadership has a weaker effect on (a) workgroup inclusion and (b) workgroup discrimination when there is more objective distance between leader and follower, but stronger effects when there is less objective distance between leader and follower. – **Partially Supported (see Table 6)**

11. The positive relationships between inclusive leadership and (a) workgroup inclusion and (b) workgroup discrimination will be negatively moderated by workgroup dispersion such that inclusive leadership has weaker effects on (a) workgroup inclusion and (b) workgroup discrimination when there is more objective distance between workgroup members, but stronger effects when there is less objective distance between workgroup members. – **Not Supported**

12. The positive relationships between inclusive leadership and (a) workgroup inclusion and (b) workgroup discrimination will be positively moderated by a follower's perceived proximity to their leader such that inclusive leadership has a stronger effect on (a) workgroup inclusion and (b) workgroup discrimination when perceived proximity is higher (there is less subjective distance between leader and follower), but weaker effects when perceived proximity is lower (there is more subjective distance between leader and follower). – **Not Supported**

13. The positive relationships between inclusive leadership and (a) workgroup inclusion and (b) workgroup discrimination will be negatively moderated by reliance on electronic media to communicate with one's leaders such that inclusive leadership has a stronger effect on (a) workgroup inclusion and (b) workgroup discrimination when leaders and follower communicate via electronic media relatively less frequently than when leaders and follower communicate via electronic media relatively more frequently. – **Not Supported**

14. The positive relationships between inclusive leadership and (a) workgroup inclusion and (b) workgroup discrimination will be negatively moderated by reliance on electronic media to communicate with one's workgroup such that inclusive leadership has a stronger effect on (a) workgroup inclusion and (b) workgroup discrimination when workgroups communicate via electronic media relatively less frequently than when workgroups communicate via electronic media relatively more frequently. – **Not Supported (see Table 10 for exploratory analysis results)**

Appendix B

Eligibility Check and Informed Consent Form for MTurk Survey

Welcome! To participate in this research study, you must meet the following criteria:

- 18 years or older
- Reside in the United States
- Have worked for at least 1 month in a position that is full-time (minimum 35 hours per week)
- In your full-time job, you belong to a workgroup with a primary manager to whom you report

Before we begin, please confirm that you are eligible to participate.

- ☐ True
- ☐ False

The purpose of this research study is to learn about the experience of working during the COVID-19 pandemic. The survey will ask questions about your job, manager, and workgroup. Participation consists of completing a questionnaire that should take about 30 minutes.

Participant Rights and Protections

- Although it may not directly benefit you, this research study may benefit society by improving our knowledge of remote work. There are no risks for participating beyond those associated with normal computer use.
- Your participation is voluntary. You have the right to withdraw your consent or discontinue participation at any time without penalty. To stop, click on the "Return HIT" button, or close your browser window.
- Your responses will be confidential and can be identified only by your Amazon Worker ID number, which will be kept confidential and will not appear in any reports or publications of this research study. All your responses, including responses to demographic information (e.g., age, employment), will only be analyzed and reported at a group level. You may print this form for your records.

Compensation

If you complete the research study satisfactorily, you will receive **$3.50** to compensate you for your participation. You will be paid via Amazon's payment system. Please note that this research study contains checks to make sure that participants are finishing the tasks honestly and completely. In accordance with the policies set by Amazon Mechanical Turk, we may reject your work if you do not complete the HIT correctly or if you do not follow the relevant instructions.

Questions

This research and its procedures have been approved by The George Washington University's Institutional Research Board (IRB Approval Number: NCR213897). For information about this research study or your participation, please contact Kira Foley, Department of Organizational Sciences and Communication at The George Washington University at kirafoley@gwu.edu. Questions about your rights as a participant in this research study or any concerns or complaints can be directed to The George Washington University Office of Human Research at 202-994-2715.

By clicking the "I consent" button below, you indicate that you meet the eligibility criteria, have read and understood the description of the research study, and agree to participate.

- ☐ I consent
- ☐ I do not consent

Note. If either "False" or "I do not consent" was selected, then the individual was skipped to the end of the survey form. To participate, individuals were required to select "True" and then "I consent."

Appendix C

MTurk Recruitment Materials

MTurk Posting:

Title: Answer a survey about your workplace experiences

Description: We are conducting an academic research study to understand your opinion about the experience of working during the COVID-19 pandemic. To participate in this research study and receive credit for this HIT, you must meet the eligibility criteria.

Survey Link Instructions:

Overview and Eligibility: We are conducting an academic research study to understand your opinion about the experience of working during the COVID-19 pandemic. To participate in this research study and receive credit for this HIT, you must meet the following criteria:

- 18 years or older
- Reside in the United States
- Have worked for at least 1 month in a position that is full-time (minimum 35 hours per week)
- In your full-time job, you belong to a workgroup with a primary manager to whom you report

Survey Link Instructions: Please select the link below to complete the research study. The survey must be completed in a single sitting. At the end, you will receive a code that you must paste into the box below to receive credit for completing the HIT. Your participation will require about 30 minutes, and you will be paid $3.50 upon successfully completing the HIT.

Make sure to leave this window open as you complete the research study. When you are finished, you will return to this page to paste the code into the box below.

Survey link: https://columbiangwu.co1.qualtrics.com/jfe/form/SV_0HTtZchs1OnaIxn

Provide the survey code here: [e.g., 123456]

Appendix D

Measures: Original and Adapted Item Wording

Inclusive Leadership (Li, 2021)

Instructions: Please indicate the extent to which each statement is true of your manager.

Scale: Almost never (1), Seldom (2), Sometimes (3), Often (4), Almost always (5)

Item stem: My manager…

1. makes training opportunities equally accessible to all workgroup members.
2. makes him/herself equally accessible to all workgroup members.
3. makes resources equally accessible to all workgroup members.
4. conducts fair performance reviews of workgroup members.
5. treats everyone in the workgroup fairly.
6. listens to all workgroup members with respect.
7. communicates openly with all workgroup members.
8. respects individual differences in the workgroup.
9. seeks members' input when pursuing workgroup goals.
10. encourages diverse inputs from all members to achieve workgroup goals.
11. encourages workgroup members to contribute in their own ways.
12. integrates perspectives from all workgroup members.
13. encourages everyone in the workgroup to participate in decision making.
14. asks for opinions from all workgroup members when making decisions.
15. actively incorporates different points of view into final decisions.
16. welcomes constructive debate among workgroup members.
17. encourages workgroup members to challenge each other's perspectives in a constructive way.
18. encourages all workgroup members to collaborate with each other.
19. encourages all workgroup members to learn from one another.
20. encourages workgroup members to be their authentic selves.
21. tries to create an atmosphere in which all workgroup members feel a sense of belongingness.
22. reduces biases toward marginalized group members in the workgroup.
23. confronts both direct and subtle forms of discrimination in the workgroup.
24. implements organizational diversity and inclusion programs in the workgroup.
25. implements organizational diversity and inclusion initiatives in the workgroup.

Identification with Workgroup (Mael & Ashforth, 1992)

Instructions: Please indicate the extent to which you agree or disagree with the following statements.

Scale: Strongly disagree (1), Disagree (2), Neither disagree nor agree (3), Agree (4), Strongly agree (5)

1. When someone criticizes my workgroup, it feels like a personal insult.
2. I am very interested in what others think about my workgroup.
3. When I talk about my workgroup, I usually say 'we' rather than 'they'.
4. My workgroup's successes are my successes.
5. When someone praises my workgroup, it feels like a personal compliment.
6. If a story in the media criticized my workgroup, I would feel embarrassed.

***Adaptations:** Item referent was changed from "school" to "workgroup."

Workgroup Inclusion (Chung et al., 2020)

Instructions: Please indicate the extent to which you agree or disagree with the following statements.

Scale: Strongly disagree (1), Disagree (2), Neither disagree nor agree (3), Agree (4), Strongly agree (5)

1. I am treated as a valued member of my workgroup.
2. I belong in my workgroup.
3. I am connected to my workgroup.
4. I believe that my workgroup is where I am meant to be.
5. I feel that people really care about me in my workgroup.
6. I can bring aspects of myself to this workgroup that others in the group don't have in common with me.
7. People in my workgroup listen to me even when my views are dissimilar.
8. While at work, I am comfortable expressing opinions that diverge from my group.
9. I can share a perspective on work issues that is different from my group members.
10. When my group's perspective becomes too narrow, I am able to bring up a new point of view.

Follower Performance

Instructions: Please rate the extent to which the following statements are true for you in the past 1 month.

Scale: Strongly disagree (1), Disagree (2), Neither disagree nor agree (3), Agree (4), Strongly agree (5)

1. I performed well in my job.
2. My manager was very satisfied with my job performance.
3. Members of my workgroup were very satisfied with my job performance.

Follower Helping Behavior (Podsakof et al., 1990)

Instructions: How often do you engage in the following behaviors in your full-time job?

Scale: Almost never (1), Seldom (2), Sometimes (3), Often (4), Almost always (5)

1. Help others who have been absent.
2. Help others who have heavy workloads.
3. Help orient new people even though it is not required.
4. Help others who have work related problems.
5. Lend a helping hand to those around me.

Workgroup Discrimination (Bowleg et al., 2008; Landrine & Klonoff, 1996)

Instructions: In the past twelve months, how many times have the following incidents happened in your workgroup to you or other members?

Item stem: Members…

Scale: Never (1), Once in a while (less than 10% of the time) (2), Sometimes (10-25% of the time) (3), A lot (26-49% of the time) (4),
Most of the time (50-70% of the time) (5), Almost all of the time (more than 70% of the time) (6)

1. Treated each other unfairly because of personal characteristics.
2. Accused or suspected each other of doing something wrong (such as stealing, cheating, not doing your share of work, or breaking the law) because of their personal characteristics.
3. Misunderstood each other's intentions and motives because of personal characteristics.
4. Have been really angry with each other about something discriminatory that was done by someone in your workgroup to another group member because of their personal characteristics.
5. Were forced to take drastic steps (such as filing a grievance, filing a lawsuit, quitting your job, moving away, and other actions) to deal with some discriminatory thing that was done by other members of your workgroup.
6. Have gotten into an argument or a fight about something discriminatory that was done to you or somebody else in your workgroup.
7. Made fun of, picked on, pushed, shoved, hit, or threatened you or somebody else in your workgroup because of personal characteristics.
8. Have been really angry with each other about a discriminatory joke that was said by someone in your workgroup.
9. Have been denied a raise, promotion, job or something at work they deserved because of their personal characteristics.

***Adaptations:** Original Items 1-9 from the Schedule of Racist Events and Items 6-11 and 13 from the Schedule of Sexist Events were condensed into Item 1. Original Schedule of Racist Events item 17 was removed due to inability to adapt referent appropriately. Original Schedule of Racist Events item 18 was removed.

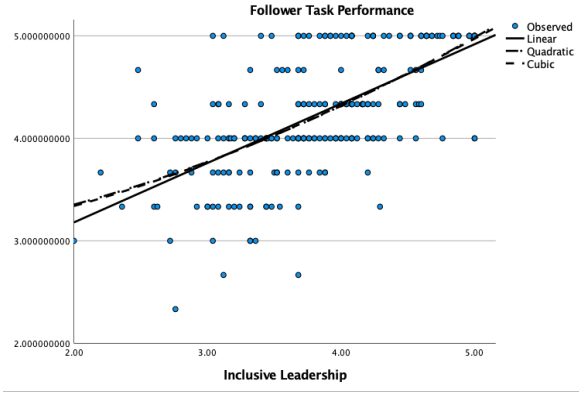
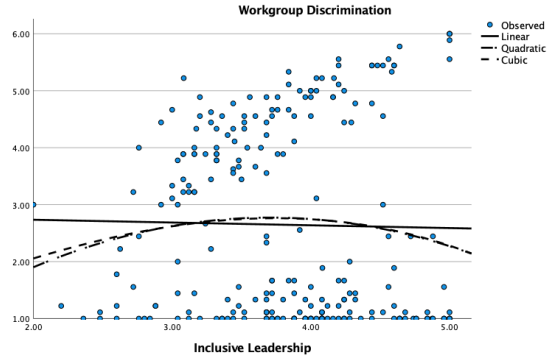
Leader-Follower Perceived Proximity (O'Leary et al., 2014)

Instructions: Please indicate the extent to which you agree with the following statements.

Scale: Strongly disagree (1), Disagree (2), Neither disagree nor agree (3), Agree (4), Strongly agree (5)

1. I feel close to my manager.
2. Even when we are not working in the same place, I still feel close to my manager.
3. I feel closer to my manager than the actual physical distance would suggest.
4. I have a warm feeling about my manager.
5. Physical distance doesn't matter in my relationship with my manager.
6. When I think of my manager, the distance between the two of us generally seems small.
7. With regard to work, I often think about my manager.
8. Even when we're not actively working on something, I feel close to my manager.
9. Psychologically, my manager feels close.
10. I feel connected to my manager.
11. Even when we haven't been in the same place, it hasn't seemed like I was far from my manager.
12. When I think of my manager, she/he seems close.

***Adaptations:** Item referent was changed from "this colleague" to "my manager."

Appendix E

Scatterplots of the Relationships Between Inclusive Leadership and Outcomes