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### The Interactive Effects of Cross-Cultural Competence, Political Skill, and Cultural Distance on Trust and Cohesion

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The Interactive Effects of Cross-Cultural Competence, Political Skill, and Cultural  
Distance on Trust and Cohesion

by

Allyson Clubb

A thesis submitted to the College of Psychology and Liberal Arts of  
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in partial fulfillment of the requirements  
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“The Interactive Effects of Cross-Cultural Competence, Political Skill, and Cultural  
Distance on Trust and Cohesion”

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## Abstract

Title: The Interactive Effects of Cross-Cultural Competence, Political Skill, and Cultural Distance on Trust and Cohesion

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Culturally diverse teams are increasingly common in the modern workforce, yet an inadequate understanding of the unique needs for culturally diverse teams has continued to lead to either sub-optimal or even failed team performance. The current study sought to examine the relationships between cultural distance, team emergent states (trust and cohesion), team composition (cross-cultural competence, 3C; and political skill, PS), and team performance. The research design utilized archival, longitudinal data which included a final sample of 49 teams. It was hypothesized that team-level 3C and PS benefit performance indirectly through their impact on trust and cohesion. Further, it was thought culture distance moderates this relationship, such that 3C and PS would most strongly affect trust and cohesion in high and low culturally distant teams, respectively. Neither the mediation nor moderated mediation relationships hypothesized were supported, though general interactive patterns indicate 3C may most strongly impact trust and cohesion in culturally similar teams, while PS had stronger effects in culturally distant teams. Surprisingly, 3C and trust were found to significantly interact to predict performance, suggesting a moderation such that 3C strength led to low

perceptions of performance when trust was low, and high perceptions when trust was high. More research should explore the similarities and differences between 3C and PS, the role of emergent states, and how individual differences impact culturally diverse teams.

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## **Dedication**

For my parents, who laid the foundation for this journey. Being raised in the Army, taught at home, and watching my dad complete his own thesis inspired my love for people, curiosity, and personal dedication. I would not have found my passion or had the skills to succeed without you both! And to all my family, friends, and colleagues, thank you! Without your support, this work would not have been possible. I praise the Lord for all His blessings in this process.

## **Chapter 1: Introduction**

Globalization has given many opportunities to organizations, but not without its drawbacks. Cross-cultural teams insufficiently prepared to navigate cultural differences can experience negative social categorization processes, cultural biases, and lack of cooperation, which all negatively impact team performance (van Knippenberg et al., 2004). However, research has also demonstrated that diversity can positively affect performance through information elaboration processes which increases diversity of thought (Pieterse et al., 2012). Despite its benefits, information sharing is less common in heterogeneous teams (Mesmer-Magnus & DeChurch, 2009). As cross-cultural teams become more numerous, it is important to know how to optimize the benefits of cultural differences while effectively navigating its challenges. The current research extends understanding of cultural diversity in teams by empirically testing whether cultural distance and team compositional factors impact the emergence of trust and cohesion, thereby impacting perceived team effectiveness.

Team performance results from both team inputs, such as team member characteristics and team composition, and mediators such as processes and emergent states (Ilgen et al., 2005). Thus, to better understand performance in culturally diverse teams, research must look at both characteristics within the team and how team members interact. For example, heterogeneity in team members' cultural backgrounds results in cultural diversity. The current effort is interested in cultural distance as a form of cultural diversity as a conceptualization for how

similar or dissimilar individuals are in their deep-level cultural values (Konara & Mohr, 2019). The more dissimilar individuals are in their values, the greater the likelihood they perceive each other as different and the diversity literature becomes applicable. As thought by the categorization-elaboration model (CEM), the mixed findings regarding diversity and performance are likely due to the dangers of social categorization and the opportunity to improve information elaboration (van Knippenberg et al., 2004).

Based on this context, it is worth exploring emergent states which might indicate whether social categorization or information elaboration is occurring (Ilgen et al., 2005). Specifically, the current research is interested in trust and cohesion. Both trust and cohesion are important for performance, as trust encourages processes such as knowledge sharing and cooperation (Costa et al., 2017) and cohesion encourages unity and perseverance (Mach et al., 2010). Unfortunately, culturally diverse teams often have lower levels of trust and cohesion compared to their homogenous counterparts (Bjørnstad et al., 2012; Schaeffer, 2013). Both trust and cohesion are affectively driven, meaning they result due to the feelings individuals have toward one another. Diversity within teams likely undermines trust and cohesion due to differences driving team members away from each other and limiting necessary interactions for producing these emergent states. On the other hand, when trust and cohesion exist, a culturally diverse team should be better able to effectively work together. The current research suspects that the lack of

interactions which lead to trust and cohesion could explain the detrimental outcomes of some culturally diverse teams.

This study explores if there may be skills which could help teams navigate cultural differences to improve social interactions. Specifically, cross-cultural competence (3C) and political skill (PS) are two identified, relevant competencies. 3C indicates an ability to interact effectively with others from different cultural backgrounds and increases adaptive behaviors and psychological well-being in cross-cultural settings (Leung et al., 2014; Li, 2020). PS signals skill in work-related relationships, emphasizing social connections and an ability to influence others (Ferris et al., 2005). 3C and PS both relate to interpersonal skills, an adaptability in speech and behaviors, and a genuine interest in others (Ferris et al., 2005; Institute for Culture, Collaboration, & Management, ICCM, 2019). Most relevant to the current research, both have been positively related to trust (Lvina et al., 2016; Rockstuhl & Ng, 2008), while cohesion has been empirically related to PS (Lvina et al., 2018) and proposed to relate to 3C (Moynihan et al., 2006).

The current study sought to test whether cultural distance moderates the relationship between 3C and PS and trust/cohesion, thereby impacting performance. The impact of culture distance on these relationships was also explored. Culturally diverse student teams were surveyed throughout their coursework to determine whether this proposed relationship is supported empirically. Support for this relationship would have implications for both theory development and practices within the workforce.

First, research has failed to explain under what circumstances cultural distance is beneficial to team performance. Additionally, there is currently no research examining the differences and similarities between 3C and PS in team processes, particularly by indicating when each skill is most useful. Development in these two areas would assist researchers and practitioners, such as by highlighting contextual details relevant to diversity research, guiding organizations in selecting and training individuals for culturally diverse teams, and informing leaders how to guide their teams to achieve trust and cohesion.

## Chapter 2: Literature Review

### Perceived Team Effectiveness

Most teams research has focused on performance as an important output. Understandably so, as performance is a critical aspect of organizational functioning. Performance at the individual-level is often defined as the behaviors an individual performs, as these are functions under the person's control (Beal et al., 2003), and are often distinguished by whether the behavior is task-related (task performance) or directed toward the psychological and social context (i.e., task performance, contextual performance; Borman & Motowidlo, 1993; Motowidlo & Van Scotter, 1994). However, that definition gets complex when trying to understand performance at the team-level. For that reason, team performance is often defined as the attainment of team goals (Weldon & Weingart, 1993).

There are many team goals, though in general team goals can be classified as either tangible outputs and products or relate to the processes of attaining this final output. Tangible outputs and products are objective measures of performance, while how teams interacted and worked together are more subjective. Objective measures can seem to be less influenced by individuals' biased perceptions, though subjective measures are able to assess the quality of individual performance and experiences. Similarly, Mathieu and colleagues (2008) suggest that team members' affective reactions (e.g., team satisfaction, team commitment, team viability) are important outcomes to also consider and these are inherently subjective. The current study will examine subjective perceptions of team effectiveness.

Team researchers suggest performance is influenced by three primary characteristics: structural features, compositional features, and mediating mechanisms (Mathieu et al., 2019). Structural features include team characteristics such as whether external demands align with the structure (i.e., structural contingencies), task scope and complexity, team interdependence, and team virtuality. Compositional features include the combination of members' characteristics, such as personality, skills, and backgrounds, which impact performance by influencing how team members interact with each other. These interactions are part of what Mathieu and colleagues (2019) call “mediating mechanisms”, or the various team processes and emergent states which evolve through member interactions.

### **Team Processes and Emergent States**

A team can be described as two or more members who work interdependently toward a shared goal (Salas et al, 2009). Traditionally, teams research has been grounded in the input-process-output (I-P-O) model (McGrath, 1964). In this model, team characteristics and compositions (aka, inputs) impact team outcomes (e.g., performance) through their impact on processes. In short, “process” refers to the behaviors team members engage in to accomplish work.

Another closely related concept in team functioning which was not included in the original I-P-O model are emergent states. Emergent states describe the cognitive, affective, and motivational states of a team which “[vary] as a function of team context, inputs, processes, and outcomes” (Marks et al., 2001, p. 257).



Trust and cohesion are two examples of emergent states, explained in more detail later. While processes refer to the actions of the team, emergent states are an outcome of these interactions. Due to their dependence on team processes and the surrounding context, emergent states are dynamic, flexible, and can rapidly change. Similarly, emergent states can be intertwined with other emergent states as they develop simultaneously over time.

Due to the importance of both processes and emergent states, the I-P-O model was later revised into the IMOI model (Ilgen et al., 2005). The IMOI model retained the input and output elements of the I-P-O model, while it changed the term “process” to “mediators” to include both processes and emergent states and added a second “input” at the end to signify the dynamic nature of team functioning. The IMOI model has since surpassed the I-P-O model for current efforts to understand and research teams (Mathieu et al., 2008).

### ***Trust***

Trust is often defined as “the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party” (Mayer et al., 1995, p. 712). This definition is for interpersonal trust, though its primary elements (e.g., willingness to be vulnerable and positive expectations) are also reflected in definitions for team trust (Fulmer & Gelfand, 2012). Team trust can be conceptualized as an aggregation of trust toward

individual team members or trust toward the team as its own referent. The current study looks at team trust as a network pattern of dyadic trust within the team.

Interpersonal trust formation depends on many factors, including characteristics of the trustor and trustee and contextual details. Firstly, a trustee must behave in ways which signal high amounts of ability, benevolence, and integrity to achieve positive expectation of trustworthiness (Mayer et al., 1995). Characteristics of the trustor, such as general propensity to trust and whether the trustor and trustee share characteristics, impact how these behaviors are interpreted (Alarcon et al., 2018; Fulmer & Gelfand, 2012). Positive communication and interactions are also important in building trust, as is the context the trustor and trustee share (e.g., whether the trustor and trustee share a social network; organizational and external contexts; Fulmer & Gelfand, 2012).

In teams, trust encourages processes such as knowledge sharing, cooperation, and risk taking (Colquitt et al., 2007; Costa et al., 2017). These behaviors can benefit communication and teamwork and indirectly impact attitudinal outcomes such as satisfaction, as it is more enjoyable and fulfilling to work in a well-functioning team than one in which information is withheld or team members do not work together. For these reasons, intrateam trust is predictive of both performance and attitudinal outcomes (Mathieu et al., 2019).

Team trust has also been explored in the context of cultural diversity. Compared to homogeneous teams, cultural diversity tends to predict lower levels of trust within teams (Bjørnstad et al., 2012; Garrison et al., 2010). This difficulty in

establishing trust could be due to how cultural differences impact relationships and expectations (Stahl et al., 2010). However, findings are mixed regarding whether this lower trust then leads to lower performance (Bjørnstad et al., 2012; Mach & Baruch, 2015).

Trust is well-established in the literature, though more research on trust in diverse teams is needed. Specifically, it is unknown whether this bond can explain the mixed findings in diverse team performance, and if so, what factors can help diverse teams form trust. The current research hopes to answer these questions by exploring the composition of social skills, specifically 3C and PS, within the team.

### ***Cohesion***

Cohesion has been defined in many ways (Forsyth, 2021), though generally definitions focus on feelings of belonging or a sense of unity within the group. The current effort defines cohesion as “the tendency of a group to stick together and remain united in the pursuit of its instrumental objectives and/or for the satisfaction of member affective needs” (Carron et al., 1998, p. 213). As this definition implies, cohesion has two dimensions: task cohesion and social cohesion. Social cohesion represents the bond between members, such as whether members like or are attracted to the group (Beal et al., 2003; Evans & Jarvis, 1980). While most researchers define cohesion as a multidimensional construct, some combine task and social cohesion into a single dimension (Salas et al., 2015). The current study focuses on social cohesion within the team.

The development of cohesion depends on team member characteristics and events which create bonds between team members. One of the primary antecedents of cohesion is task commitment, or the focus on attaining the team's goal (Forsyth, 2021). Cohesion also depends on the team composition (Ensley & Hmieleski, 2005). Members who share similar backgrounds and interests are better able to relate to one another and thus form bonds (Lott & Lott, 1965). Shared attraction within and identifying with the group are both antecedents of cohesion (Forsyth, 2021). Further, sharing similar experiences, frequent interactions, and forming a group structure which increases the group's structural integrity are also important (Forsyth, 2021; Lott & Lott, 1965).

Cohesion is important for a team as it predicts the extent to which the team will be unified and overcome obstacles (Mach et al., 2010). Cohesion has also been related to retention and viability in a group as well as with positive member attitudes (Greer, 2012). Cohesion is also predictive of team performance (Castaño et al., 2013; Greer, 2012; Mathieu et al., 2015), though this relationship is strongest when a high degree of interdependency is required for goal completion (Forsyth, 2021). Group type, contexts, and measurement methods also impact whether results indicate cohesion predicts performance (Forsyth, 2021).

Theoretically, cohesion should be especially predictive of diverse team performance and yet equally difficult to achieve, due to the necessary level of interaction between members. However, there is little evidence of this. Most current research in this area examines cohesion based on ethnic diversity. Though

ethnically diverse teams do tend to show lower rates of cohesion (Schaeffer, 2013), these findings are not always significant (Garrison et al., 2010; Love, 2018). Some research suggests this could be due to ethnic diversity and cohesion having an inverse-U-type relationship (Godfrey et al., 2022). This theory supports previous findings in which 11-30% of diversity within a team (based on race, age, sex, and disability status) had the most optimal levels of effectiveness, trust, and cohesion (Knouse & Dansby, 1999).

There is a distinct lack of research examining cohesion within culturally diverse teams, including how it is formed and how it impacts team performance. The current effort seeks to fill this gap by examining levels of cohesion in teams with various levels of culture distance. Whether team skills, including 3C and PS, impact the formation of cohesion will also be explored.

### **Team Composition**

Team composition, or the unique configuration of team member attributes, has strong implications on team functioning. Both surface-level and deep-level attributes impact how team members feel, think, and behave toward one another, thereby influencing team processes and the development of emergent states (Bell et al., 2018; Ilgen et al., 2005). Surface-level attributes include differences in demographics or other easily observable information such as job role, while deeper-level attributes include differences which take time to notice, such as members' personalities, beliefs, and attitudes (Bell et al., 2018).

While the importance of team member attributes is clear, the measurement of team composition is more difficult. Models for aggregating individual-level constructs to the team level each has its own theoretical perspective (Chan, 1998; Kozlowski & Klein, 2000). As such, the compositional model chosen should be based on the theory and expected impact of the construct of interest. A few common models relevant to the current study are explained below.

A common compositional model is the *additive model*, in which the team-level score on a characteristic is the mean of individual members' scores (Chan, 1998). The additive model assumes team members contribute to equally contribute to the team and can compensate for each other, such that a deficit in one team member's skill level can be compensated for by another team member having a higher skill level. Effectively, the difference in scores would cancel out each other's influence. Via the additive model, a team is high on a particular characteristic if the mean score is high, and conversely has a low team-level score if the mean is low.

*Dispersion models* seek to determine how the spread of member characteristics impact team processes and emergent states, regardless of whether the average score is relatively high or low as examined through the additive model. These interpret variance to determine the level of similarity/dissimilarity between scores or agreement/disagreement on perspective while others examine patterns of dispersion, such as whether scores are skewed or bimodal (Chan, 1998; Loignon et al., 2019). Theoretically, dispersion models assume each member has a unique role

in the group which cannot necessarily compensate for another. Recent evidence suggests that for some emergent states, such as conflict, cohesion, and satisfaction, dispersion models are related to team outcomes after controlling for mean scores (Loignon et al., 2019).

Some researchers combine these two models to look at *variable strength* (e.g., Lvina et al., 2018). From this view, the strength of a variable is high when the team has a high mean and low variance. Lvina and colleagues (2018) used this approach to examine political skill in teams: teams had high political skill strength when the team had a high mean of political skill AND team members were relatively similarly skilled. In other words, political strength occurred when *most* team members had *high* political skill.

Each compositional method has a theoretical view of team dynamics, yet frequently aggregation is used for its simplicity. Care should be taken to match the selected compositional model to the theoretical arguments related to the examined constructs. More research should be done to compare predictive ability for each compositional method based on the variable and context. The current study is focused on exploring the intersection of three key compositional variables that can be examined in culturally diverse teams: cultural distance, 3C, and PS.

### ***Culture & Cultural Distance in Teams***

Diversity research typically centers on ethnic and racial demographics, and recently has begun to investigate deeper characteristics like culture. Culture has been conceptualized in many ways. Hofstede examines where on a continuum of

value dimensions a culture falls (Hofstede, 1980), while Honor/Dignity/Face logics classify cultures by whether its members ascribe self-worth from internal and/or external sources (Aslani et al., 2016). The current research is interested in how teams can overcome general cultural differences rather than differences in a specific aspect. The current research chose to examine the Hofstede dimensions as this source of difference, as nationality is a salient identifier to other members and cultural values would become apparent throughout the team's work together.

The Hofstede cultural dimensions are one of the most popular used by researchers and practitioners alike. Hofstede (1980) originally included four value dimensions: *power distance* (the degree to which social inequality is expected), *individualism-collectivism* (the degree to which people are integrated into groups), *masculinity-femininity* (the degree to which a culture values competition and assertiveness versus cooperation and harmony), and *uncertainty avoidance* (the degree to which a society is tolerant of ambiguity). Since then, the dimensions *long term-short term orientation* (the degree to which individuals adapt to and plan for the future versus focus on past traditions and consistency; Hofstede & Bond, 1988) and *indulgence-restraint* (the degree to which society indulges in immediate versus regulates gratification; Hofstede et al., 2010) have been added.

How one operationalizes culture informs how one can quantify cultural diversity within the team. For example, Blau's Index (Blau, 1977) quantifies diversity in terms of categorical variables to calculate the probability of the team's unique make-up. Because Blau's Index is based on categorical variables, it is often



used for quantifying diversity in terms of demographic variables. On the other hand, culture distance examines how similar/dissimilar two individuals are in cultural values, thus operationalizing culture as a continuous variable (Konara & Mohr, 2019). Culture distance is most often examined via Hofstede's (1980) dimensions. Equations for calculating cultural distance are discussed in more detail in the Methods section.

Diversity within teams is important for understanding social processes in the workforce. Most diversity research explores demographic diversity, such as ethnicity, age, and sex. Some meta-analyses have found demographic diversity negatively predicts team performance (Bell et al., 2011; Hülshager et al., 2009), though these results are not consistent (Horwitz & Horwitz, 2007; Webber & Donahue, 2001). The impact of cultural values in teams are not as often researched, though meta-analyses have shown member similarity tends to positively relate to team processes (Mesmer-Magnus & DeChurch, 2009) and suggest team collectivism tends to predict team performance (Bell, 2007).

According to the categorization-elaboration model (CEM), the inconsistent performance findings could be due to how diversity is interpreted within the team (van Knippenberg et al., 2004). CEM asserts that social categorization processes undermine diverse team processes, though if this is overcome, then diverse teams can improve performance compared to homogeneous teams due to information elaboration. It is known that people are most attracted toward people like themselves (Williams & O'Reilly, 1998). This natural tendency can lead to

distancing oneself from others who are not similar – the team instinctively separating themselves into subgroups based on perceived differences due to a perceived identity threat (van Knippenberg et al., 2004). This division within the team undermines performance as the team cannot fully act as a single unit. However, diverse teams have an advantage through their greater pool of task-related information and potential expertise. Through information elaboration, or the in-depth processing of task-related information, diverse teams tend to be more creative and innovative and produce higher-quality deliverables than homogeneous teams (van Knippenberg et al., 2004). Information sharing tends to occur less commonly in diverse teams than homogeneous teams, despite this advantage, possibly due to social categorization effects (Mesmer-Magnus & DeChurch, 2009). Thus, whether team members view each other as a threatening “other” or as part of their team unit could explain differences in team processes and emergent states, which then predict performance.

As cultural socialization teaches individuals what is appropriate and expected in various situations, culture shapes interpretation of others’ behaviors (Schwartz, 2012; Gouveia et al., 2014) and perceptions of work environments and co-workers (Kossek et al., 2017). By impacting perceptions, cultural values also likely influence the formation of trust. Research consistently shows that sharing similar cultural values helps in shaping positive perceptions of others and determining whether they are trustworthy (Edwards & Cable, 2009; Kossek et al., 2017; Lewicki et al., 2006).

Research is still unclear regarding under what conditions diversity leads to social categorization or information elaboration, thereby either hindering or helping long-term team functioning (van Knippenberg et al., 2004). It is proposed that social categorization is most likely when the potential categories are salient (van Knippenberg et al., 2004). Cultural diversity is likely a salient difference due to well-known, deeply held stereotypes and highly visible differences in speech and behaviors (Pieterse et al., 2012). However, it is further proposed that social categorization is likely to result in intergroup biases when one's own identity, as implied by the perceived categories, appears threatened or challenged (van Knippenberg et al., 2004). If one's own identity is not at stake, it is easier for the individual to identify with the entire team and work for the team's achievement. It is possible that social processes and emergent states which help team members bond explain the success or downfall of diverse teams. This study tries to examine that possibility by exploring trust and cohesion.

### ***Cross-Cultural Competence***

Cross-cultural competence (3C) can be thought of as “the ability of individuals to deal effectively with people from other cultural backgrounds” (Li, 2020, p. 1), which can be further narrowed to the ability to effectively understand and adapt in cross-cultural environments (Abbe et al., 2007). To interact and behave effectively is the foundation for intercultural effectiveness, the ultimate goal for successful cross-cultural interactions (ICCM, 2019).

Unfortunately, there is a lack of agreement concerning how 3C and its related constructs should be conceptualized or theoretically combined (Leung et al., 2014). For example, Chiu and colleagues (2013) note some researchers debate whether 3C is a personal characteristic (e.g., Lonner, 2013) or a set of skills (e.g., Wilson et al., 2013), while still others combine both views by conceptualizing 3C as the knowledge, skills, abilities, and other characteristics (KSAOs) necessary to demonstrate competence (Matsumoto & Hwang, 2013). The current study views 3C as a competency involving five Success Factors: *Acceptance* (i.e., the “tendency to be open to novel environments and people”), *Broad Perspective* (i.e., “the acquisition of knowledge from and about people originating outside of one’s own national boundaries”), *Mindfulness* (i.e., maintaining “heightened awareness of the moment-to-moment experiences”), *Perseverance* (i.e., “one’s willingness to carry out goals to completion despite the levels of hardship one has to endure”), and *Rapport* (i.e., “one’s propensity to build and maintain relationships with individuals throughout interactions”) (ICCM, 2019, p. 11).

Another common construct in cross-cultural research is cultural intelligence (CQ). While CQ is often studied independently of 3C, some consider CQ to be a subdimension within the overall framework of 3C (Li, 2020). CQ comes from intelligence research and involves four subdimensions: metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ (Ang et al., 2007). In short, one’s CQ corresponds to what they know, their motivation to engage with others, and how effective their behaviors are. There are both areas of distinctiveness and

areas of overlap between the definitions of 3C and CQ. For example, compared to 3C, CQ is unique in that it asks about specific cultural knowledge (e.g., cultural values and systems) and whether behaviors and speech are adjusted according to cultural situations. Beyond this however, both 3C and CQ measure an interest in learning about other cultures, and the enjoyment and confidence in being in unfamiliar cultural situations, while 3C also measures self-knowledge (Mindfulness) and optimism in facing difficulties (Perseverance). In short, CQ, particularly motivational CQ, is related to 3C by describing the desire to learn and interact more effectively cross-culturally.

A comprehensive analysis regarding the conceptual and possible empirical overlap between these and similar constructs is a future research need that falls beyond the scope of the current effort. Instead, for the purposes of the current research, the focal variable of interest is 3C, but other related literature is reviewed when relevant. CQ is by far the most prolific related concept in cross-cultural research; other similar constructs include, but are not limited to, intercultural effectiveness (Hammer et al., 1978), intercultural competence (Deardorff, 2006), and global mindset (Javidan & Teagarden, 2011). It is reasonable to draw from these similar individual differences to better understand the broader 3C construct.

3C and its related constructs are predictive of psychological, behavioral, and performance outcomes important for cross-cultural functioning (Leung et al., 2014). These intercultural effectiveness competencies primarily lead to cross-cultural adaptation (CCA), which then relates to performance (Ang et al., 2007;

Jyoti & Kour, 2017; Lin et al., 2012). CQ increases self-efficacy in intercultural interactions and reduces burnout (Tay et al., 2008). Similarly, intercultural effectiveness has been related to lower intercultural anxiety, an increase in the number of intercultural friends, and satisfaction with study abroad experiences (Hammer, 2005). CQ is considered a relatively state-like capability, as it can slowly develop over time (Earley & Ang, 2003). As such, CQ is impacted by number and length of international experiences (Crowne, 2008; Moon et al., 2012). CQ has also been positively related to conscientiousness, agreeableness, emotional stability, extraversion, and openness to experience (Ang et al., 2006).

Multilevel 3C research often examines team leader skill or the mean of team member skills. Within multicultural teams, leader CQ predicts the extent to which they are trusted by their subordinates (Chua et al., 2012). Member CQ predicts teamwork and creativity (Crotty & Brett, 2012) and is proposed to improve team cohesion (Moynihan et al. 2006). Within bicultural dyads, CQ also improves cooperation and interpersonal trust (Imai & Gelfand, 2010; Rockstuhl & Ng, 2008).

Most research on cross-cultural skills has focused on CQ, with relatively few examining other models within the cross-cultural skills framework. There has also been a call for more research on the composition of 3C within teams, and the effect of 3C on team processes and team-level outcomes (Leung et al., 2014). The current research seeks to answer this call by examining 3C as its own competency. The impact of team strength 3C on team emergent states trust and cohesion will be explored, as well as the team-level outcome of perceived team effectiveness. There

is also a research gap in comparing 3C to other skills, which will be explored by comparing 3C to PS in these areas of team functioning.

### ***Political Skill***

Pfeffer (1981, as cited in Ferris et al., 2005) was one of the first to claim politics is a critical piece of organizational operations, suggesting individuals skilled in political functioning are more likely to be successful. This led to the identification of political skill (PS), “the ability to effectively understand others at work, and to use such knowledge to influence others to act in ways that enhance one’s personal and/or organizational objectives” (Ahearn et al., 2004, p. 311). PS has 4 related yet distinct dimensions (Ferris et al., 2007; Munyon et al., 2015). These dimensions include *social astuteness* (i.e., the ability to “comprehend social interactions and interpret [their own and others’] behavior... in social settings”), *interpersonal influence* (i.e., having a “subtle and convincing personal style that exerts a powerful influence on those around them”), *networking ability* (i.e., being “adept at developing and using diverse networks of people”), and *apparent sincerity* (i.e., appearing to possess “high levels of integrity, authenticity, sincerity, and genuineness”; Ferris et al., 2005, p. 129).

PS is similar yet distinct from other social effectiveness constructs (Ferris et al., 2005; Kimura, 2014). For example, PS is very similar to social intelligence, though social intelligence (SQ) is more general while PS relates to workforce interactions specifically (Harris et al., 2007). Further, emotional intelligence (EI) is “the ability to monitor one’s own and others’ feelings and emotions, to discriminate

among them and to use this information to guide one's thinking and actions”

(Salovey & Mayer, 1990, p. 189). While PS and EI are positively related, EI focuses on knowledge of emotions while PS includes a mix of knowledge and skill (Ferris et al., 2005; Kimura, 2014). The difference can also be explained as EI enables PS in various workplace outcomes such as job satisfaction (Meisler, 2014).

The benefits of PS at the individual-level come through its interpersonal and social nature. Meta-analytic results suggest PS is positively related to a wide range of work-related outcomes, most notably self-efficacy, job satisfaction, and organizational commitment (Munyon et al., 2015), and predicts both contextual and task performance (Bing et al., 2011). A leader high in PS can improve team performance by increasing team cohesion (Yang & Zhang, 2014). Additionally, PS reduces negative outcomes such as physiological strain (Munyon et al., 2015), job stressors, role conflict, and burnout (Kim et al., 2019; Summers et al., 2020).

Of particular interest to the current study is research on PS aggregated to the team level. This relatively new research technique has paralleled individual-level findings, suggesting PS is positively related to performance and other team outcomes. Team PS was predictive of both subjective and objective team performance, the latter through social and task cohesion (Khan & Siddiqui, 2021; Lvina et al., 2018), and predicted team efficacy and trust in the team (Lvina et al., 2016). PS also seems to mitigate the negative effects of team demographic faultlines on shared leadership and team performance (Xu et al., 2019).

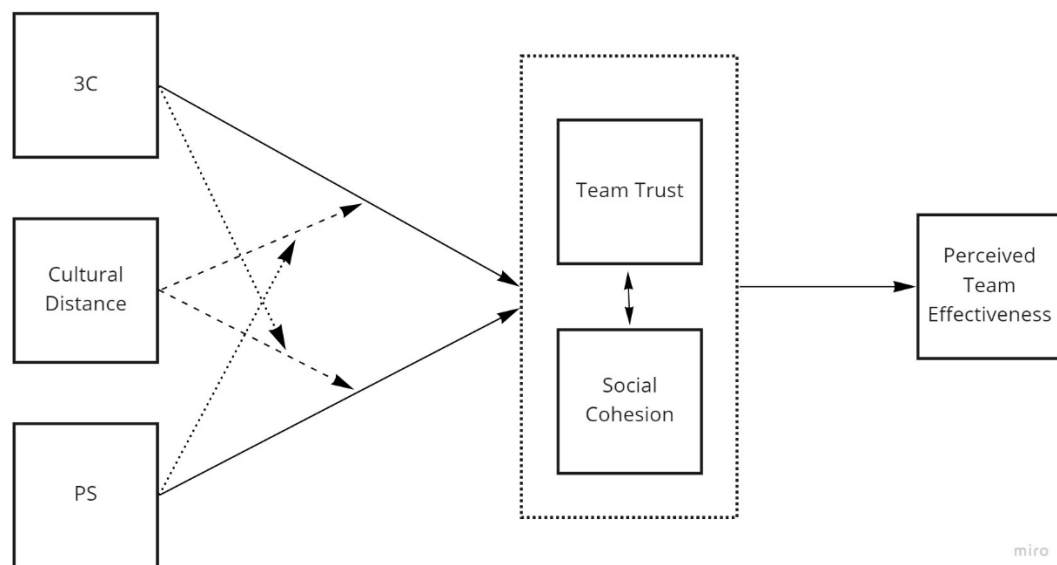


As was discussed in an earlier section, the method for aggregating individual-level constructs to the team level has various theoretical and statistical implications. The studies reviewed here use a variety of aggregation methods, including the mean PS score (e.g., Semrau et al., 2017), the standard deviation of scores (e.g., Lvina et al., 2016), and the product of the mean and standard deviation (“strength”; e.g., Lvina et al., 2018).

Though PS has become more popular in the last decade, relatively little is known about PS at the team level. Additionally, at the time of this writing there has also been no work regarding PS through a cultural lens. To this end, the current study seeks to compare PS and 3C, as both are socially driven competencies, and to determine the impact PS has in culturally distant teams.

### Chapter 3: Hypothesis Development

Cultural diversity has been shown to both improve and hinder team performance, suggesting that context matters when determining the implications of cultural distance. The current theoretical framework proposes the team composition of 3C and PS have a positive indirect effect on perceived team effectiveness through trust and cohesion, moderated by the cultural distance within the team (see Figure 1). Whether culture distance impacts the joint effects between 3C and PS on trust and cohesion was also explored. Following is a theoretical development for specific hypotheses regarding this theoretical model.



*Figure 1. Theoretical Model*

#### Trust and Cohesion

One aspect of team performance is the goal to work together effectively, such as achieving a time schedule and producing quality work. Research has sometimes used “performance” and “team effectiveness” interchangeably, while

other times distinctions are made between them. As perceived team effectiveness accounts for teammate's beliefs in the team's performance and ultimate success, the current study will use perceived team effectiveness to assess team performance. This approach will use the broader literature to support the expected relationships between trust, cohesion, and perceived team effectiveness.

Trust is the willingness to be vulnerable based on expectations the trustee will perform in a particular way (Mayer et al., 1995). There are many ways in which trust is critical for team functioning, including by facilitating effective communication and teamwork (Costa et al., 2017). For example, individuals are unlikely to risk sharing out-of-the-box ideas or constructive criticisms if they expect team members to ignore or disapprove of their input. On the other hand, if they expect teammates to respond positively, individuals are more likely to trust the team enough to be vulnerable. Trust also aids in teamwork as work-related trust involves a reasonable expectation of satisfactory work. If a team does not trust in the competence of their teammates, members may feel obligated to complete others' tasks or double check others' work. This would lead to ineffective time management and distribution of resources.

Intrateam trust also helps improve individuals' affect; it feels better to be in a team that trusts each other (Mathieu et al., 2019). A team which does not trust each other will likely experience a high amount of stress. This stress could be due to any number of reasons, such as having to consider whether to communicate an idea or concerns regarding the quality of work. In the end, trust not only facilitates

effective communication and teamwork between individuals but also makes the work process more enjoyable and satisfactory. As such, trust should positively relate to team performance, a premise supported by past research (e.g., Mathieu et al., 2019).

A second important quality in a team is cohesion, or the feeling of belonging within the group (Chin et al., 1999). Like trust, past research has found a positive relationship between cohesion and performance (e.g., Greer, 2012; Mathieu et al., 2015; Mathieu et al., 2019). The basic logic for this is that members of a cohesive team will be motivated to participate in achieving the team's goals (Cartwright & Zander, 1968, as cited in Evans & Dion, 2012). Cohesive members will identify with the group, which according to social identity theory will also involve a desire for the group to succeed. This suggests members who feel they belong to a team will act in ways to advance progress toward the team's objectives.

Further, every team will encounter obstacles such as interpersonal conflict, changes in work processes, and adjustments to the task expectations. Cohesion allows a group to remain intact and productive despite these challenges, to the point that many researchers view cohesion as the tendency to be unified (Forsyth, 2021). A unified team is more likely to withstand these difficulties until the challenge has been overcome or solved, thereby improving performance.

In summary, trust and cohesion should both predict team performance as found in previous research. Trust facilitates critical team processes like teamwork, communication, and problem-solving, and is related to positive effects such as

satisfaction. Further, cohesion encourages teammates to work toward the achievement of team goals, even if challenges arise. The current study examined perceived team effectiveness, as time management and work quality are indicators of successful team performance.

***H1:** (a) Trust and (b) cohesion are positively related to perceived team effectiveness.*

Trust and cohesion are both affectively-driven emergent states. As emergent states, both factors are dynamic and take time to emerge. Further, both trust and cohesion result from individuals' cognitive interpretations and affective reactions to another's behaviors and intentions. Due to the similarity in how these states emerge and their impact in team interactions, it can be assumed that trust and cohesion likely exist simultaneously and co-evolve. Studies involving both trust and cohesion have consistently found that trust predicts cohesion (Fung, 2014; Garrison et al., 2010; Kim & Ko, 2021; Mach et al., 2010). Interestingly, none of these research efforts are known to have examined potential reverse-causality, though one exception did find a reciprocal relationship between trust and cohesion (Paul et al., 2016). The causal relationship between trust and cohesion is worth further examination due to its implications on theory and practical recommendations. The current effort analyzed the relationship between trust and cohesion across time to explore the potential causal linkages between these two emergent states.

***RQ 1:** Are trust and cohesion unidirectionally or bidirectionally related over time?*

### **3C and PS**

Individual skills such as 3C and PS are of particular interest in the current study due to their impacts in helping individuals navigate personal differences effectively. Both skillsets do so by increasing understanding of differences and applying this knowledge to adapt one's own behavior and influence behaviors of others. 3C and PS as compositional factors at the team-level (see Methodology) could explain whether a culturally diverse team experiences trust and cohesion.

In some ways, 3C and PS are similar constructs and likely impact each other, as both qualities have to do with the ability to interact effectively with others. To be socially astute (PS) would require awareness of self and others, a key tenant of 3C. Similarly, both rapport and acceptance (3C) likely improve interpersonal influence and networking ability (PS). The two should also be empirically related as both constructs are positively related to EI and SQ (Harris et al., 2007; Jyoti & Kour, 2017; Kimura, 2014; Moon, 2010).

While both characteristics generally relate to relationship-building skills, inspection of the construct definitions and scale items in the Cross-Cultural Competence Navigator (3CN; ICCM, 2019) and the Political Skill Inventory (PSI; Ferris et al., 2005) revealed meaningful differences. Firstly, 3C is by-definition about proficiency in adapting to cultural differences, whereas PS is not culturally focused and in fact may be a skill bounded within one's own culture. Though both are interpersonal, the 3CN directs attention to relationships with others who have different beliefs and values, while the PSI asks about relating to people in general.

If a person-related item is not directed to a particular group, responders are most likely to think of others most like themselves and those they commonly interact with. For example, a form of humor may be effective in one's usual social group but inappropriate in another. It is because of this that PS may be culturally bound.

Additionally, the intended goal of such interactions differs. 3C has no goal, though 3CN items imply a general curiosity and interest in learning new things and situations. This is not the case for the PSI, which asks about intentionality in networking and using influence to accomplish objectives. 3C also incorporates optimism in the face of difficulties, which is not accounted for in the PSI.

Finally, at the broadest level, 3C is defined as a competency and therefore is a combination of knowledge, skills, and abilities/attributes (Matsumoto & Hwang, 2013). As the name implies, political skill narrows the focus to an individual's skillset. This is reflected in the respective items, as the 3CN measures knowledge of self and others, as well as interests and values (using words such as "I enjoy..." and "I am open to..."), while the PSI items seem to target behaviorally enacted skills (e.g., "I am good at getting people to like me.")

In summary, although overlapping in some ways, it is likely that 3C and PS are distinct constructs. Examination of the theoretical backgrounds and items suggests 3C composes knowledge, skills, and abilities/attributes which are culturally adaptive, while PS addresses only skills (not knowledge or other abilities) which could be bound to one's native culture. However, there is currently

a lack of research comparing these constructs. Therefore, the current study seeks to fill this gap by providing evidence that the two are indeed empirically distinct.

***H2:** 3C and PS are distinct constructs.*

### **Outcomes of 3C and PS**

Research has found trust and cohesion are especially difficult to generate in culturally diverse teams due to dissimilarity in values and cultural backgrounds (Mach & Baruch, 2015). It is therefore important to understand the factors which might aid this process. It is proposed that while 3C and PS are meaningfully distinct competencies, both are useful in helping the formation of trust and cohesion in teams and therefore indirectly beneficial for team effectiveness.

Team 3C and team PS will be examined using the strength model, which considers both the mean and variance of a compositional characteristic (Chan, 1998; Lvina et al., 2018). Recent empirical evidence suggests the variance of team scores predicts emergent states such as cohesion above and beyond team mean (Loignon et al., 2019). However, variance alone does not provide enough information in the current model; similar scores will only improve team outcomes if these scores are also high (i.e., having similarly low levels of a desirable competency will not improve team outcomes). For these reasons, the strength model best informs the composition of 3C and PS within the team.

Strong team 3C should improve trust by disrupting social categorization processes that tend to occur in diverse settings, which results in minimal interactions with the “different” out-group (van Knippenberg et al., 2004). This



harms trust development, which depends on enough quality interactions and shared experiences that one can reasonably expect competence and positive intent from the trustee (Mayer et al., 1995). 3C should increase the frequency and quality of interactions, thereby improving trust. Individuals high in 3C are comfortable interacting with people from other cultures and should see differences as an opportunity to learn rather than as a threat (e.g., “*I [do not] find talking to individuals from other backgrounds stressful*” and “*I appreciate opportunities to learn about different traditions*”). Thus, culturally competent individuals should feel motivated to initiate conversation with diverse others, who tend to reciprocate the favor and take interest in the initiator, further bridging the divide (Gouldner, 1960). This mutual sharing of information creates a relational, affective bond between team members. In larger teams, however, a single individual attempting to better understand their teammates could easily be met with resistance. Thus, having many members skilled in 3C should enhance the number of these relationships which are initiated and reciprocated.

Additionally, 3C should improve the quality of interactions within a team. Having frequent yet unpleasant interactions will not build trust, so it is important for the quality of communication and teamwork to be positive. Individuals high in 3C tend to “*enjoy working with international coworkers.*” One possible reason for this is that people high in 3C are capable of adapting based on situational needs. For example, they are patient and willing to communicate despite any language differences (e.g., “*When others don’t speak my language well, it is worth the extra*

*effort to listen closely*”). By taking the time to understand each other, both the initiator and receiver can communicate their competence, a key antecedent of trust.

Likewise, strong team 3C should improve cohesion. Cohesion refers to a team unity to meeting team member needs and to overcome obstacles (Carron et al., 1998). Due to the relational bonds described above, strong team 3C should help connect team members and build a strong team identity, in which the needs of the members are known and taken care of. Beyond this, cohesion is about maintaining the team even in the face of challenges. Multicultural teams experience typical task-related conflicts but also have the added challenge to navigate cultural differences, experienced when addressing task conflict or even as an initial cause for interpersonal conflict. Cross-cultural conflicts can be difficult to identify, let alone address, due to the unconscious, taken-for-granted nature of cultural norms (Abbe et al., 2021).

Therefore, qualities of 3C which likely help in conflict-resolution should also aid in generating cohesion. Firstly, high 3C relates to knowing oneself and an interest in diverse others. Culturally competent individuals should be better able to identify the roots of a conflict, due to awareness of their own values, philosophies, and habits. Conscious awareness of oneself also means realizing that there are other ways of doing or being, which otherwise would float outside of awareness. For example, imagine a member expects to complete a task soon after it is assigned while another is used to finishing assignments shortly before the due date. If both members are unaware of their preferred schedule, they might experience confusion

and frustration when the other behaves out-of-accordance with their assumptions.

In addition to knowing themselves, 3C relates to an openness “*to learning about ideas and behaviors that are different than mine.*” This openness might relate to learning about differences in personal backgrounds as well as thoughts about the task at hand, stylistic working differences, et cetera. Either way, this openness should create a foundation of communication between teammates such that they are better able to discuss differences before issues get out of hand.

Secondly, 3C should be beneficial in overcoming challenges as individuals high in Perseverance are able to “*remain optimistic even after facing setbacks*” and “*bounce back quickly from adversity.*” Whether facing a cross-cultural conflict within the team or some other task-related obstacle, the ability to persevere is important to navigating setbacks as the team will likely need to try multiple solutions before finding one which works. One perseverant team member might encourage the rest of the team, though if morale is low enough then there is too much strain placed on the one individual. Thus, a team with strong 3C should be better able to persevere together.

While it is hypothesized that strong team 3C will improve trust and cohesion, a team with weak 3C would likely struggle to develop the necessary team bonds. In this type of team, any individual who is highly culturally competent would not only have to extend themselves first but also must overcome their teammate’s lower skill level to maintain effective team interactions. Analogies like “it takes two to dance” describe the cooperation teamwork requires. For example, if

one offers an opportunity to converse but is met with brief responses and nothing to drive the conversation further, the discussion will quickly stall out. Additionally, an individual who has high 3C can quickly become frustrated if their willingness to learn, understand, and adapt are not met with the same courtesy. Therefore, it is likely that trust and cohesion will ultimately require participation from all team members, in which the need for similarly high 3C levels will become apparent.

In summary, it is theorized that the strength of team 3C (i.e., a combination of mean and standard deviation) should positively relate to trust and cohesion in multicultural teams. Strong team 3C (i.e., many team members have similarly high 3C) should improve trust and cohesion within the team by increasing the number and quality of interpersonal interactions. Specifically, trust generation will be facilitated by improving the number and quality of interactions, which would help team members garner enough information to establish expectations of competence and positive intent. Strong team 3C should also help in developing cohesion due to helping team members recognize the causes of cultural conflicts and persevere in finding solutions to these and task-conflict-related challenges. Conversely, teams which have either low average 3C or which vary widely in their 3C scores should experience reduced trust and cohesion due to a low drive to understand or adapt to cultural differences. Even if one or a few individuals are culturally competent, they will likely experience strain and frustration due to resistance from those in the team who are not culturally competent. Trust and cohesion should then predict perceived

team effectiveness, consistent with past research and as described in Hypothesis 1 (e.g., Mathieu et al., 2019).

***H3:** Strength of team 3C is positively related to (a) trust and (b) cohesion.*

***H4:** The positive relationship between strength of team 3C and perceived team effectiveness is mediated by trust and cohesion.*

The second compositional variable of interest is PS. Like 3C, the current research is interested in the strength of team PS, due to its consideration of both mean and variance within the team. The current model seeks to build on recent research on strength of team PS which suggests numerous highly politically skilled teammates provide multiple “gobetweeners” to facilitate team functioning, including cohesion (Khan & Siddiqui, 2021; Lvina et al., 2018).

Like 3C, PS is an interpersonal skill. Thus, the two should both improve trust and cohesion due to how they facilitate interactions and establish relationships. Individuals high in PS tend to find it easy to “*develop good relationships with most people.*” This could be due to many reasons. First, individuals with PS are greatly concerned with acting sincerely and being perceived as such (e.g., “*I try to show a genuine interest in other people*” and “*I have good intuition about how to present myself to others.*”) Their approaches do not appear threatening to others, who are more willing to interact. Further, the politically skilled tend to instinctively “*understand people very well*” and “*know the right things to say or do to influence others.*” Highly politically skilled people understanding the inner workings of their teammates and can adjust their actions

accordingly. Taken together, these qualities help them appear 1) competent in social relationships and their work and 2) to have positive intent – key antecedents of trust (Mayer et al., 1995). The average trust within the team should be even higher when everyone is highly politically skilled and more positive interactions are likely be initiated and reciprocated.

Strong team PS should also improve cohesion. Cohesion requires interdependence between team members, which is a defining aspect of PS. PS emphasizes workplace relationships and productive networking, building numerous social and task-related connections (e.g., “*I spend a lot of time and effort at work networking with others.*”) Individuals high in PS are also attuned to the needs of their colleagues and can adjust accordingly, which can increase how much team members like the politically skilled member and the team overall. Liking the team helps increase feelings of belonging, and thus also improves team cohesion.

PS not only builds trust and cohesion one-on-one but also helps these develop throughout the team. As these individuals are strongly connected and liked by others, the politically skilled may “act as gobetweens, bridging the structural holes between disconnected others, facilitat[ing] resource flows and knowledge sharing” (Mehra et al., 2001, p. 121). For example, if there is a conflict between a dyad in the team, someone high in PS would be able to use their skills to diffuse the situation. Trust and cohesion should be further improved when many members share high PS. If someone happens to not work well with a teammate, despite both having similarly high PS scores, a team with strong PS would have other people

available to play middleman. There should also be a stronger environment of respect and authenticity within the team when many members understand others, instinctually adapt their speech and behaviors, and desire to be seen as genuine.

However, a team with weak PS should have lower trust and cohesion within the team. If everyone has low PS, there is a general inability to “read others” and adjust accordingly. It can be difficult for someone with low PS to realize if a teammate is becoming frustrated or confused, or if they realize it, their attempts to resolve the issue can backfire. While an individual high in PS should smooth over such disturbances, their behaviors may be interpreted as an interference or arrogance by others in the team. If this occurs, others in the team do not believe in the member’s intent and would lose trust in them. This would harm whether the member high in PS feels they belong within the team or have a purpose (i.e., lowers cohesion), as they cannot use their skills within the team.

In summary, a team which has many team members sharing similarly high PS levels should experience an increase in trust and cohesion due to the higher number of positive connections built throughout the team. These connections are built based on apparent sincerity and genuineness and an understanding of others’ thoughts, feelings, and motivations. Conversely, weak team PS should reduce trust and cohesion due to the inability to read others and adjust accordingly, or by misinterpreting a skilled member’s behaviors as evidence of low integrity. The resulting trust and cohesion should then predict perceived team effectiveness (see Hypothesis 1; Mathieu et al., 2019).

*H5: Strength of team PS is positively related to (a) trust and (b) cohesion.*

*H6: The positive relationship between strength of team PS and perceived team effectiveness is mediated by trust and cohesion.*

### **Impact of Culture Distance**

While the current research proposes that both strength of team 3C and PS will improve trust and cohesion in teams, the strength of this relationship will vary based on the level of culture distance in the team. Culture distance refers to the level of similarity or dissimilarity between the cultural values of each team member; the greater the dissimilarity, the higher the culture distance (Konara & Mohr, 2019). Cultural diversity in a team, such as indicated by culture distance, negatively impacts team processes (Bjørnstad et al., 2011). Individuals who feel like they do not belong within the group may withdraw effort toward team goals (van Knippenberg et al., 2004), leading to the perception that they are incompetent or even intentionally disruptive. 3C targets cultural differences and thus should be of better service to connect culturally diverse teams compared to PS, which could be bound within one's native culture.

It is hypothesized that strong team 3C should improve trust and cohesion most when culture distance is high. Due to authentic interest in learning about cultural differences, individuals high in 3C are likely to engage with others not only *in spite of* their differences but *because of* them, garnering their interest in return. Due to the increased number and quality of interactions, culturally competent individuals will likely learn about others on their team. Teammates with 3C are



also able to persevere through challenges, regardless of whether these are due to culture in any way. Through these processes 3C should improve both trust and cohesion in highly culturally distant teams. See Hypothesis 3 for more detail.

By both definition and measurement, 3C is inherently associated with cross-cultural interactions. Thus, 3C should be less helpful within low culture distance teams. A desire to learn about international news and patience with language skills are much less relevant for culturally similar individuals compared to the culturally dissimilar. Indeed, while CQ improved trust for dyads of different cultural backgrounds, this was not the case for homogenous dyads (Rockstuhl & Ng, 2008).

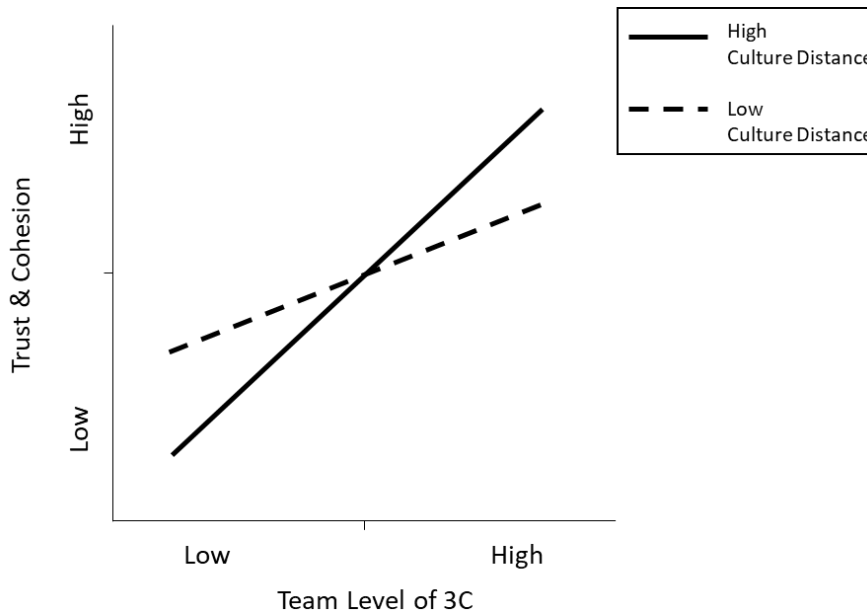
On the other hand, while every item in the CQS relates to culture (van Dyne et al., 2008), some aspects of 3C are more generalizable, and thus will be helpful in all interactions regardless of the level of cultural distance. For example, Rapport is about general relationships and not quite as closely tied to cultural backgrounds (e.g., *“I am confident that I will get along with new people I meet”* and *“Typically, I have positive interactions with new people”*), and should aid in both trust and cohesion. Similarly, Perseverance is the quality to persist through challenges (e.g., *“I do not let setbacks get me down”*) and should aid in building cohesion amidst conflict. A full exploration of hypotheses at the sub-dimension level is out of scope of the current model, though exploratory analyses will be considered.

In summary, some qualities within 3C should be helpful in both culturally diverse and culturally homogenous situations, such as confidence in meeting new people. However, the majority of 3C is related to interest in and navigating cultural

differences and is therefore only beneficial in culturally diverse settings. Thus, taken in combination, it is likely that strength of team 3C will have the greatest impact when cultural distance is high (i.e., high levels of cultural dissimilarity). This proposed relationship is illustrated in Figure 2.

**H7:** *The positive relationship between strength of team 3C and a) trust and b) cohesion is moderated by cultural distance, such that the relationship is strongest when culture distance is high.*

**H8:** *Cultural distance moderates the indirect effect of strength of team 3C on perceived team effectiveness through trust and cohesion, such that the indirect effect is strongest when cultural distance is high.*



*Figure 2. Proposed Moderating Effects of Cultural Distance on 3C and Trust/Cohesion*

While PS has been shown to improve trust and cohesion in teams (e.g., Khan & Siddiqui, 2021), it may not be as beneficial when culture distance within

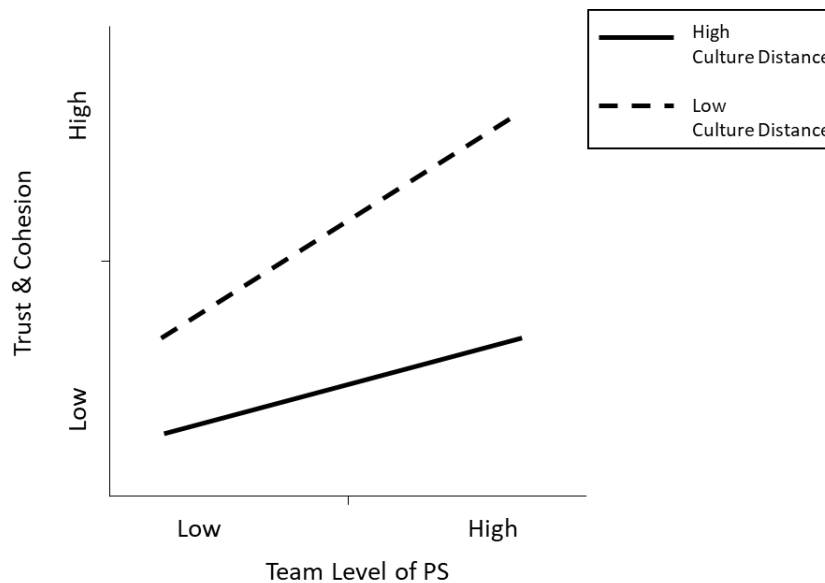
the team is high. PS relates to an individual's skill in knowing who is most influential and how to create meaningful relationships with these people. However, expertise in one culture does not necessarily translate to knowing what is appropriate in another. For example, nodding in the American culture communicates understanding, while nodding in the Japanese culture means listening to what is said (Kawar, 2012). This difference can easily lead to false expectations. Likewise, interpersonal influence could be difficult to establish amid these different behavioral norms. Therefore, PS could be bound to the culture in which one is most familiar.

It could be argued that if PS is culturally bound, well-intentioned though culturally insensitive behaviors should decrease trust and cohesion in a culturally diverse team. However, at its basic level, PS involves awareness of how others perceive them. While the ways in which to “*make most people feel comfortable*” and “*communicate easily and effectively*” vary, the basic skill of paying attention is the same. While it may take time, the politically skilled should be able to relearn how to interact effectively in another cultural setting. Individuals high in PS should be able to recognize if their teammates do not respond as expected and consider alternative options. For this reason, the current research hypothesizes that while PS may not strongly improve trust and cohesion in highly culturally distant teams, PS should not have a negative impact. Therefore, it is theorized that strong team PS will always improve trust and cohesion and indirectly improve performance, though most strongly when a team is culturally similar.

In summary, though the awareness of self and others should help highly skilled members quickly adjust, the ways in people high in PS would intuitively behave may not translate to other cultural settings. As such, strong team PS should especially facilitate the development of trust and cohesion in culturally similar teams - in which members would not have to relearn behaviors (see Figure 3).

***H9:** The positive relationship between strength of team PS and a) trust and b) cohesion is moderated by cultural distance, such that the relationship is strongest when culture distance is low.*

***H10:** Cultural distance moderates the indirect effect of strength of team PS on perceived team effectiveness through trust and cohesion, such that the indirect effect is strongest when cultural distance is high.*



*Figure 3. Proposed Moderating Effects of Cultural Distance on PS and Trust/Cohesion*

### **Complex Interaction of 3C, PS, and Cultural Distance**

It has been theorized that culture distance will moderate the relationship between both 3C and PS to trust and cohesion. However, it is unknown how these three variables together interact. As of this writing there has been no research comparing various levels of 3C and PS. How do the two interact with each other?

This question is even more interesting if culture distance affects each competence differently. Are the two competencies compensatory, in that one increases in relative importance based on culture distance? Or is one skill always more dominant, with higher culture distance becoming increasingly detrimental? The interaction of these three factors will be explored to further understand the relationship between 3C and PS based on various levels of culturally distant teams.

***RQ 2:** Does the level of cultural distance change the joint effects of team strength 3C and PS on trust and cohesion?*

The overall conditional model (a mediated three-way interaction) set forth by the previous set of hypotheses was tested in Hypothesis 11. This model captures the interactive indirect effects of team strength 3C, PS, and culture distance on performance through the mediation of team trust and cohesion. This includes both a two-way and three-way moderation, in which culture distance moderates the relationship between 3C/PS and trust/cohesion, further moderated by the other skill set. The overall model is depicted in Figure 1. See Table 1 for a summary of all hypotheses and research questions.

*H11: There is a direct path from team skill composition to perceived team effectiveness, with an indirect effect through trust and cohesion, where the paths from team skill to trust and cohesion are moderated by culture distance, which are further moderated by the other team strength skill.*

**Table 1**

*Proposed Hypotheses and Research Questions*

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|       |  |
|-------|--|
| H1:   | (a) Trust and (b) cohesion are positively related to perceived team effectiveness.   |
| RQ 1: | Are trust and cohesion unidirectionally or bidirectionally related over time?  |
| H2:   | 3C and PS are distinct constructs.   |
| H3:   | Strength of team 3C is positively related to (a) trust and (b) cohesion.   |
| H4:   | The positive relationship between strength of team 3C and perceived team effectiveness is mediated by trust and cohesion.  |
| H5:   | Strength of team PS is positively related to (a) trust and (b) cohesion.   |
| H6:   | The positive relationship between strength of team PS and perceived team effectiveness is mediated by trust and cohesion.  |
| H7:   | The positive relationship between strength of team 3C and a) trust and b) cohesion is moderated by cultural distance, such that the relationship is strongest when culture distance is high.   |
| H8:   | Cultural distance moderates the indirect effect of strength of team 3C on perceived team effectiveness through trust and cohesion, such that the indirect effect is strongest when cultural distance is high.  |
| H9:   | The positive relationship between strength of team PS and a) trust and b) cohesion is moderated by cultural distance, such that the relationship is strongest when culture distance is low.  |
| H10:  | Cultural distance moderates the indirect effect of strength of team PS on perceived team effectiveness through trust and cohesion, such that the indirect effect is strongest when cultural distance is high.  |
| RQ 2: | Does the level of cultural distance change the joint effects of team strength 3C and PS on trust and cohesion?   |
| H11:  | There is a direct path from team skill composition to perceived team effectiveness, with an indirect effect through trust and cohesion, where the paths from team skill to trust and cohesion are moderated by culture distance, which are further moderated by the other team strength skill. |

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## Chapter 4: Methods

### Sample and Study Design

The current study used an archival, longitudinal survey design which sampled student teams at a private technical university in the southeast. Students were recruited via their enrollment in a qualified course. These courses involved a final team project which required teamwork throughout the term; some courses lasted one semester while others lasted two semesters. A total of 102 teams, composed of 482 students, participated in the study.

Students received an emailed survey battery at three time points throughout each semester, with students in a two-semester course receiving six surveys total. The first survey measured individual differences, including demographic variables, national identification, 3C, and PS. The additional surveys measured trust within the team, perceived team cohesion, and subjective performance.

While debate continues about the merits of student samples (Ashraf & Merunka, 2016), the current sample has several benefits. First and foremost, like a field study, surveys were given to previously existing teams. Teams experienced realistic pressure from outside the study to work together and produce a quality final-deliverable. In addition to course grades, some courses also had students present their product to industry leaders in a final industry showcase. Thus, teams interacted more frequently and authentically compared to artificially created teams which exist only in a laboratory. Second, the university has a high percentage of foreign exchange students, ensuring varied cultural diversity between teams.

## Measures

### *Perceived Team Effectiveness*

Perceived team effectiveness, a measure of team performance, was measured through a 12-item scale, rated from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*; adapted from Gibson et al., 2003). Example items include “*This team meets its deadlines*” and “*This team does high quality work*”. Perceptions of performance should emerge similarly across team members as they share equivalent definitions of effective performance and observe the same performance content (Kozlowski & Klein, 2000). Thus, team mean is the most theoretically appropriate compositional model for perceived team effectiveness by determining how positively or negatively the team viewed their performance. Based on team response rates, the mean of team member responses from either the fourth, fifth, or final timepoint was calculated. This will be referred to as the end point.

### *Trust*

Intrateam trust was measured in all but the first timepoint by asking team members to rate their trust toward each other member on a Likert scale ranging from 1 (*Distrust Very Much*) to 5 (*Trust Very Much*). Team trust was aggregated using a weighted network density approach, which creates a ratio describing the relative “intensity” of connections between each person (Lizardo & Jilbert, 2020). This was calculating by summing the strength of the trust between each possible relationship within the team and dividing this by the total possible team strength. In



the current study, the density of trust can fall on the continuum between full distrust (0.2) to full trust (1) within the team.

All timepoints were analyzed to determine the directionality of the relationship between trust and cohesion, while hypothesis testing used ratings from either the second or third timepoint, based on team response rates. Henceforth, this will be referred to as the midpoint.

### ***Cohesion***

Cohesion was measured using the Perceived Cohesion Scale (Chin et al., 1999). This scale asks 6 items such as “*I feel that I belong to this group*”, which are rated on a Likert scale ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). Perceived cohesion was measured in all but the first survey. All timepoints were analyzed to determine the directional relationship between trust and cohesion, while the midpoint was analyzed for hypothesis testing. Scores were aggregated to the team level using the strength model to determine how strongly each member feels they belong within the team and if this perception was shared across the team. Team strength was calculated by dividing the team standard deviation by the team mean, the absolute value of which was reversed in sign (Colquitt et al., 2002). This produces a negative score in which a higher number represents higher strength. To make these positive for easier interpretation, 1.00 was then added to all scores.

### ***Cross-Cultural Competence***

Participants’ 3C scores were measured using the 3C Navigator (ICCM, 2019). This is a 30-item scale such as “*Being in a new situation is a positive*

*experience*” and “*I understand how my philosophies impact my decisions.*” These items are rated on a Likert scale ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). 3C was measured in the first survey, which was aggregated to the team level using the strength model.

### ***Political Skill***

Individual-level PS was measured using the Political Skill Inventory (PSI; Ferris et al., 2005). This 17-item scale asks items such as “*I am good at building relationships with influential people at work*” and “*I have good intuition about how to present myself to others*”. Items are answered on a Likert scale ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). PS was measured in the first survey and was aggregated to the team level using the strength model, which should explain team outcomes above and beyond the average score of the team PS (Khan & Siddiqui, 2021; Lvina et al., 2018).

### ***Cultural Distance***

Cultural distance is a way to quantify “the extent to which countries differ in cultural values” (Konara & Mohr, 2019, p. 35). Cultural distance is a useful way of quantifying cultural diversity and is commonly calculated via the Kogut-Singh Index (KSI, Kogut & Singh, 1988). The KSI is a composite index based on differences within the Hofstede (1980) cultural dimensions: uncertainty avoidance, individuality, tolerance of power distance, and masculinity-femininity. Despite the KSI’s frequent use, recent work by Konara and Mohr (2019) suggests the original

equation results in the squared cultural distance and thus formulated a recommended equation based on Euclidean distance.

$$Euclidean\ Distance\ (Standardized)_{ij} = \sqrt{\sum_{k=1}^4 \frac{(I_{ki} - I_{kj})^2}{V_k}}$$

This equation was used to calculate the cultural distance between each dyad in the team according to the country in which they were born. The average of these dyadic scores operationalized culture distance at the team level (e.g., Lee et al., 2020; Thomas, 1999).

### Analyses

A summary of all analyses by hypothesis can be found in Table 2.

Additional analyses were considered based on statistical findings.

**Table 2**

*Summary of Analyses*

| Hypothesis  | Analysis                    |
|---|-----------------------------|
| <b>H1:</b> (a) Trust and (b) cohesion are positively related to perceived team effectiveness.   | Linear Regression           |
| <b>RQ 1:</b> Are trust and cohesion unidirectionally or bidirectionally related over time?  | Cross-lagged Panel Analysis |
| <b>H2:</b> 3C and PS are distinct constructs.   | CFA                         |
| <b>H3:</b> Strength of team 3C is positively related to (a) trust and (b) cohesion.   | Bivariate Correlation       |
| <b>H4:</b> The positive relationship between strength of team 3C and perceived team effectiveness is mediated by trust and cohesion.  | *Model 4                    |
| <b>H5:</b> Strength of team PS is positively related to (a) trust and (b) cohesion.   | Bivariate Correlation       |
| <b>H6:</b> The positive relationship between strength of team PS and perceived team effectiveness is mediated by trust and cohesion.  | *Model 4                    |
| <b>H7:</b> The positive relationship between strength of team 3C and a) trust and b) cohesion is moderated by cultural distance, such that the relationship is strongest when culture distance is high. | *Model 1                    |

**Table 2, cont.***Summary of Analyses*


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|  |           |
|--|-----------|
| <b>H8:</b> Cultural distance moderates the indirect effect of strength of team 3C on perceived team effectiveness through trust and cohesion, such that the indirect effect is strongest when cultural distance is high.   | *Model 8  |
| <b>H9:</b> The positive relationship between strength of team PS and a) trust and b) cohesion is moderated by cultural distance, such that the relationship is strongest when culture distance is low  | *Model 1  |
| <b>H10:</b> Cultural distance moderates the indirect effect of strength of team PS on perceived team effectiveness through trust and cohesion, such that the indirect effect is strongest when cultural distance is high.  | *Model 8  |
| <b>RQ 2:</b> Does the level of cultural distance change the joint effects of team strength PS and 3C on trust and cohesion?  | *Model 3  |
| <b>H11:</b> There is a direct path from team skill composition to perceived team effectiveness, with an indirect effect through trust and cohesion, where the paths from team skill to trust and cohesion are moderated by culture distance, which are further moderated by the other team strength skill. | *Model 11 |

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\* *PROCESS Macro (Hayes, 2017)*

First, the study sought to replicate previous findings regarding the relationship between trust, cohesion, and performance. A linear regression was conducted to test whether trust and cohesion predict performance (Hypothesis 1). Additionally, the causal relationship between trust and cohesion (Research Question 1) was explored using a cross-lagged panel analysis approach to relate trust and cohesion levels across time points.

Second, 3C and PS are assumed to be distinct constructs in the proposed model (Hypothesis 2), which was tested using a Confirmatory Factor Analysis (CFA). Once this is established, the direct relationships between both 3C and PS and trust/cohesion (Hypotheses 3 & 5) were tested using a bivariate correlation.

Conditional indirect effect hypotheses were tested through PROCESS Macro v4.1 (Hayes, 2017). Benefits of PROCESS Macro include its ability to test the entire model at one time, rather than individual pathways as proposed by Baron and Kenny (1986), which decreases the possibility of a Type 1 error in the absence of a significant main effect, and its utilization of bootstrapping, a random resampling process which does not assume normal distributions. PROCESS Macro also produces a Johnson-Neyman output, which describes the significance and effect size of a moderation at three levels of the moderator. This allows examination of the impact of different levels of culture distance and the joint effects of 3C and PS.

Thus, PROCESS Macro was used rather than the Baron and Kenny approach to examine the conditional indirect effects hypothesized in the current study. All product variables were centered before testing for interaction effects. Model 4 was conducted to test the mediation models (Hypotheses 4 & 6). Model 1 was used to test the moderation models (Hypotheses 7 & 9). Model 8 was used to test the moderated mediation models (Hypotheses 8 & 10). Model 3 was conducted to explore the proposed Type III 3-way interaction between cultural distance, 3C, and PS (Research Question 2; Lam et al., 2019). Finally, Model 11 was used to examine the relationships among variables as an entire moderated mediation model (Hypothesis 11).

## Chapter 5: Results

### Data Preparation

To achieve 80% power with the percentile bootstrapping technique, a priori power analyses suggest a sample size of 162 for an effect size of 0.26, 78 for an effect size of 0.39, and 36 for an effect size of 0.59 (Fritz & MacKinnon, 2007). 100 teams received between 3 and 6 surveys, depending on whether the team existed for 1 or 2 semesters. Teams were kept for analysis if they had a 50% or higher response rate at three timepoints: T1, which measured individual differences and demographics; either T2 or T3 for collecting trust and cohesion values; and either T4, T5, or the final timepoint for collecting performance values. 51 teams did not meet this criterion and were removed, leaving 49 teams remaining.

Outlier analyses were then conducted. Individual composites which exceeded a z-score of  $\pm 3.3$  were removed (Tabachnick & Fidell, 2007). This included member scores for cohesion (T3,  $n = 2$ ; T4,  $n = 3$ ; T5,  $n = 1$ ) and effectiveness (T4,  $n = 2$ ; T5,  $n = 2$ ). All teams maintained the necessary 50% response rate for each variable. Remaining individual composites were then aggregated to the team-level.

As not all teams had usable data from all timepoints, Chi-square tests were conducted to justify combining scores across timepoints. In other words, team trust density and team cohesion strength could be from either the second or third timepoints. Results suggested scores from both timepoints were not significantly different for either trust,  $\chi^2 (575, N = 32) = 590.22, p = .321$ , or cohesion,  $\chi^2 (961,$

$N = 32$ ) = 992.00,  $p = .237$ . Additionally, scores for perceived team effectiveness were available from the fifth and final timepoints (except for two teams in which the fourth timepoint was their last data). Again, all analyses came back insignificant: between T4 and T5,  $\chi^2$  (676,  $N = 27$ ) = 702.00,  $p = .237$ ; between T5 and Final,  $\chi^2$  (576,  $N = 25$ ) = 600.00,  $p = .237$ ; and between T4 and Final,  $\chi^2$  (576,  $N = 25$ ) = 600.00,  $p = .237$ . Thus, team scores from the noted timepoints were aggregated into a final “midpoint” and “end point” score.

### Descriptive Statistics

In total, 49 teams and responses from 203 of the total 282 teammates were analyzed. Teams had 2 to 12 members ( $M = 5.61$ ,  $SD = 2.57$ ) and 1 to 7 nationalities ( $M = 2.35$ ,  $SD = 1.48$ ). Respondents were aged between 18 and 57 years old ( $M = 22.12$ ,  $SD = 3.5$ ), 63.1% were male ( $N = 128$ ), and 42.4% were Caucasian ( $N = 119$ ). Further, 40.1% were born in America ( $N = 113$ ). See Appendix B for total racial and national frequencies. Descriptive statistics for key variables at the individual and team levels are provided in Tables 3 and 4.

Correlation matrices are shown in Tables 5 and 6.

**Table 3**

#### *Individual-Level Variable Descriptive Statistics*

| Variable                     | <i>N</i> | <i>M</i> | <i>SD</i> | Minimum | Maximum |
|------------------------------|----------|----------|-----------|---------|---------|
| 3C                           | 197      | 3.83     | 0.43      | 2.47    | 4.97    |
| PS                           | 201      | 3.83     | 0.53      | 2.35    | 5.00    |
| Trust                        | 199      | 4.15     | 0.73      | 1.00    | 5.00    |
| Cohesion                     | 217      | 3.98     | 1.02      | 1.00    | 5.00    |
| Perceived Team Effectiveness | 193      | 3.73     | 0.69      | 1.50    | 5.00    |

*Note.* All variables could range between 1-5; Values for trust, cohesion, and perceived team effectiveness are from created mid and end points.

**Table 4***Team-Level Variable Descriptive Statistics*

| Variable                     | <i>M</i> | <i>SD</i> | Minimum | Maximum |
|------------------------------|----------|-----------|---------|---------|
| Team Size                    | 5.65     | 2.50      | 2       | 12      |
| Culture Distance             | 1.32     | 1.21      | 0.00    | 3.60    |
| 3C                           |          |           |         |         |
| Team Strength                | 0.89     | 0.06      | 0.72    | 0.99    |
| Team Mean                    | 3.83     | 0.24      | 3.06    | 4.33    |
| Team Stnd. Dev.              | 0.42     | 0.21      | 0.04    | 1.15    |
| PS                           |          |           |         |         |
| Team Strength                | 0.87     | 0.06      | 0.71    | 0.98    |
| Team Mean                    | 3.85     | 0.29      | 2.92    | 4.35    |
| Team Stnd. Dev.              | 0.48     | 0.24      | 0.08    | 1.16    |
| Trust Density                | 0.85     | 0.09      | 0.57    | 1.00    |
| Cohesion                     |          |           |         |         |
| Team Strength                | 0.78     | 0.19      | 0.08    | 1.00    |
| Team Mean                    | 3.83     | 0.93      | 1.25    | 5.00    |
| Team Stnd. Dev.              | 0.74     | 0.53      | 0.00    | 2.59    |
| Perceived Team Effectiveness | 3.72     | 0.40      | 2.98    | 4.63    |

*Note.* *N* = 49. Values for trust, cohesion, and team size are from on the midpoint; Values for perceived team effectiveness are from the end point.

**Table 5***Correlations for Key Individual-Level Variables*

| Variable                        | 1     | 2     | 3     | 4     | 5     |
|---------------------------------|-------|-------|-------|-------|-------|
| 1. 3C                           | (.89) |       |       |       |       |
| 2. PS                           | .56** | (.90) |       |       |       |
| 3. Trust                        | .12   | .19*  | -     |       |       |
| 4. Cohesion                     | .10   | .10   | .23** | (.97) |       |
| 5. Perceived Team Effectiveness | .13   | .14   | .42** | .34** | (.91) |

*Note.* Diagonal indicates Cronbach's alpha based on the current sample.

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



**Table 6***Correlations for Key Team-Level Variables*

| Variable               | 1     | 2    | 3      | 4     | 5      | 6      | 7    | 8    | 9    | 10     | 11   | 12    |
|------------------------|-------|------|--------|-------|--------|--------|------|------|------|--------|------|-------|
| 1. Team Size           | -     |      |        |       |        |        |      |      |      |        |      |       |
| 2. Cultural Distance   | .50** | -    |        |       |        |        |      |      |      |        |      |       |
| 3. 3C Strength         | .18   | .03  | -      |       |        |        |      |      |      |        |      |       |
| 4. 3C Mean             | .15   | .05  | .12    | -     |        |        |      |      |      |        |      |       |
| 5. 3C Std. Dev.        | -.14  | -.01 | -.98** | .03   | -      |        |      |      |      |        |      |       |
| 6. PS Strength         | -.02  | -.04 | .48**  | .00   | -.48** | -      |      |      |      |        |      |       |
| 7. PS Mean             | -.04  | -.08 | .01    | .58** | .08    | .09    | -    |      |      |        |      |       |
| 8. PS Std. Dev.        | .02   | .03  | -.46** | .09   | .48**  | -.98** | .06  | -    |      |        |      |       |
| 9. Trust Density       | .05   | .10  | .09    | -.05  | -.08   | .04    | .04  | -.01 | -    |        |      |       |
| 10. Cohesion Strength  | .29*  | .09  | .16    | .06   | -.15   | .14    | .17  | -.11 | .23  | -      |      |       |
| 11. Cohesion Mean      | .38** | .10  | .09    | -.08  | .03    | -.01   | .01  | -.02 | .14  | .48**  | -    |       |
| 12. Cohesion Std. Dev. | -.20  | -.08 | -.17   | -.07  | .16    | -.20   | -.23 | .16  | -.19 | -.93** | -.18 | -     |
| 13. Performance Mean   | -.01  | -.13 | .08    | .08   | -.08   | .19    | .20  | -.16 | .35* | .29*   | .11  | -.30* |

*Note.* Performance indicates perceived team effectiveness.

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

## Hypothesis Testing

The current hypothesis testing primarily utilized simple linear regression techniques and PROCESS Macro bootstrapping methods. Analyses also included a cross-lagged panel analysis (structured equation modeling regression; SEM) and a CFA. Statistical analysis software SPSS and R, and the statistical package PROCESS Macro for SPSS were used to conduct the analyses.

### *Hypothesis 1*

The first hypothesis states that trust and cohesion will positively relate to performance. This was tested using a series of linear regressions. First, team trust density was entered in its own model to predict perceived team effectiveness. Evidence suggests that team trust significantly explains approximately 12% of performance variance,  $R^2 = .12$ ,  $F(1, 47) = 6.68$ ,  $p = .013$ , supporting Hypothesis 1a. A second linear regression was conducted to test the relationship between cohesion strength and perceived team effectiveness, which was significantly explained approximately 8% of the variance in performance:  $R^2 = .08$ ,  $F(1,47) = 4.16$ ,  $p = .047$ . Thus, Hypothesis 1b was also supported.

A final linear regression was conducted to test the predictive power of trust and cohesion together in the same model. Results suggest that trust density and team strength of cohesion also significantly explains approximately 17% of the variance in performance,  $R^2 = .17$ ,  $F(2,46) = 4.65$ ,  $p = .015$ .

### ***Research Question 1***

The relationship between trust and cohesion over time was explored to inform later analyses by using a cross-lagged panel analysis, a form of structured equation modeling. Specifically, the constructed model included team trust and team cohesion at  $t + 1$ , regressed onto trust and cohesion at time  $t$ . Separate models were conducted to examine the relationship between trust density and cohesion aggregated as team strength and team mean. Both the model for trust density and cohesion strength (RMSEA = .18, SRMR = .14, CFI = .67) and trust density and cohesion mean (RMSEA = .22, SRMR = .15, CFI = .78) suggested poor fit. However, the poor fit indices for both models are likely due to small sample size.

Cross-lagged effects did not show significance for trust or cohesion predicting one another at  $t + 1$ , though cohesion strength at T4 neared significance for predicting trust in T5 ( $\gamma = -.33$ ,  $SE = .18$ ,  $p = .069$ ; See Table 7). Cross-timepoint correlations showed trust density and cohesion mean often significantly correlated with each other both within and across timepoints (Table 8). Across timepoints, correlations occurred for both trust and cohesion occurring before the other. For cohesion strength, significant intercorrelations only occurred for within T3 ( $r = .33$ ,  $p = .020$ ) and T6 ( $r = .49$ ,  $p = .009$ ) and between T2 cohesion and T3 trust ( $r = .52$ ,  $p < .001$ ; Table 9). Though a causal relationship could not be determined, likely due to sample size, correlations suggest a bidirectional relationship between trust and cohesion, especially for cohesion mean. Based on these results, later models tested trust and cohesion as parallel mediators.

**Table 7**

*Standardized Estimates for Cross-Lagged Panel Models for Trust and Cohesion Strength Predictions at  $t + 1$*

| Model 1     | T3 Trust | T3 Cohesion |
|-------------|----------|-------------|
| T2 Trust    | 0.59**   | -0.06       |
| T2 Cohesion | -0.15    | 0.54***     |
| Model 2     | T4 Trust | T4 Cohesion |
| T3 Trust    | 0.09     | -0.05       |
| T3 Cohesion | -0.02    | 0.09        |
| Model 3     | T5 Trust | T5 Cohesion |
| T4 Trust    | 0.05     | 0.20        |
| T4 Cohesion | -0.33    | 0.24        |
| Model 4     | T6 Trust | T6 Cohesion |
| T5 Trust    | 0.88***  | 0.46        |
| T5 Cohesion | 0.13     | 0.70*       |

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

**Table 8**

*Correlations for Trust and Cohesion Mean at Each Timepoint*

| Variable        | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1. T2 Trust     | -     |       |       |       |       |       |       |       |       |
| 2. T2 Cohesion  | .13   | -     |       |       |       |       |       |       |       |
| 3. T3 Trust     | .57** | .23   | -     |       |       |       |       |       |       |
| 4. T3 Cohesion  | .43** | .22   | .62** | -     |       |       |       |       |       |
| 5. T4 Trust     | .46*  | .48** | .03   | .25   | -     |       |       |       |       |
| 6. T4 Cohesion  | .22   | .57** | .16   | .56** | .61** | -     |       |       |       |
| 7. T5 Trust     | .41*  | .39   | .69** | .34   | .24   | .25   | -     |       |       |
| 8. T5 Cohesion  | .31   | .64** | .34   | .49** | .21   | .66** | .45*  | -     |       |
| 9. T6 Trust     | .29   | .22   | .29   | .22   | .37   | .36   | .58** | .47*  | -     |
| 10. T6 Cohesion | .31   | .50*  | .26   | .39*  | .43*  | .50*  | .45*  | .72** | .78** |

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$

**Table 9***Correlations for Trust and Cohesion Strength at Each Timepoint*

| Variable        | 1     | 2     | 3     | 4   | 5   | 6    | 7     | 8    | 9     |
|-----------------|-------|-------|-------|-----|-----|------|-------|------|-------|
| 1. T2 Trust     | -     |       |       |     |     |      |       |      |       |
| 2. T2 Cohesion  | .22   | -     |       |     |     |      |       |      |       |
| 3. T3 Trust     | .57** | .52** | -     |     |     |      |       |      |       |
| 4. T3 Cohesion  | .18   | .34*  | .33*  | -   |     |      |       |      |       |
| 5. T4 Trust     | .46*  | .23   | .03   | .00 | -   |      |       |      |       |
| 6. T4 Cohesion  | -.00  | .24   | -.10  | .02 | .06 | -    |       |      |       |
| 7. T5 Trust     | .41*  | .07   | .69** | .14 | .24 | -.19 | -     |      |       |
| 8. T5 Cohesion  | .19   | .08   | -.11  | .05 | .22 | .18  | -.05  | -    |       |
| 9. T6 Trust     | .29   | .06   | .29   | .08 | .37 | -.26 | .58** | .05  | -     |
| 10. T6 Cohesion | .16   | -.07  | -.15  | .16 | .08 | -.00 | .14   | .42* | .49** |

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$

***Hypothesis 2***

There is currently no published research exploring the relationship between 3C and PS. Thus, to compare their effects on trust/cohesion and consider their joint effects, it must first be established that the two are distinct constructs. Evidence for this was gathered using a CFA. First a two-factor model was tested,  $\chi^2 (1033) = 2986.54$ ,  $p > .001$ , CFI = .55, TLI = .53, RMSEA = .10, SRMR = .10, which did not meet the cut-offs to be considered a good fit. This was followed by testing a one-factor model,  $\chi^2 (1034) = 3345.47$ ,  $p > .001$ , CFI = .47, TLI = .44, RMSEA = .11, SRMR = .11. The lack of good fit for either model is likely in part due to the low sample size. Despite this limitation, the two-factor model was a better fit than a one-factor model, and 3C and PS are only moderately correlated ( $r = .56$ ), providing some evidence that 3C and PS are related but distinct. Additional EFA and CFA techniques such as parceling could be conducted to further solidify

evidence for the distinctness of 3C and PS. However, as these techniques do not change the data or affect future analyses, it was determined that the difference between the two- and one-factor models was sufficient to justify further analyses. Thus, Hypothesis 2 was supported.

### ***Hypotheses 3-4***

Hypotheses 3 proposed that strong team 3C is positively related to trust and cohesion. These were tested using bivariate correlations. First, team strength of 3C was correlated with trust ( $r = .09, p = .267$ ). Results were insignificant, failing to support Hypothesis 3a. The relationship between 3C and trust was further explored by analyzing team mean of 3C ( $r = -.06, p = .348$ ) and team standard deviation ( $r = -.09, p = .270$ ), which were also insignificant. Team strength of 3C was then correlated with cohesion strength ( $r = .16, p = .141$ ), which was insignificant and failed to support Hypothesis 3b. Supplemental analyses also explored the relationship between 3C mean ( $r = .06, p = .347$ ) and 3C standard deviation ( $r = -.15, p = .153$ ) with cohesion strength, which were also insignificant. Thus, Hypothesis 3 was not supported.

Hypothesis 4 suggested strength of team 3C is related to performance through the mediation of trust and cohesion. Due to the cross-lagged analysis results, trust and cohesion strength were entered as parallel mediators in Model 4. The total effect model for 3C strength was insignificant,  $F(1, 47) = 0.31, p = .582$ , as were supplemental analyses for 3C mean controlling for standard deviation,  $F(2, 46) = 0.33, p = .722$ , and 3C standard deviation when controlling for 3C mean,  $F(2,$

46) = 0.33,  $p = .722$ . Therefore, Hypothesis 4 was not supported. Indirect effects are provided in Table 10.

**Table 10**

*Indirect Effects of 3C on Performance through Trust and Cohesion Strength*

| Variable   | Indirect Effect | SE   | LLCI <sub>95</sub> | ULCI <sub>95</sub> |
|--|-----------------|------|--------------------|--------------------|
| Model 1. 3C as Team Strength                                 |                 |      |                    |                    |
| Trust  | 0.19            | 0.28 | -0.45              | 0.73               |
| Cohesion Strength  | 0.24            | 0.29 | -0.04              | 1.04               |
| Model 2. 3C as Team Mean, Controlling for Standard Deviation |                 |      |                    |                    |
| Trust  | -0.01           | 0.10 | -0.23              | 0.17               |
| Cohesion Strength  | -0.03           | 0.06 | -0.09              | 0.14               |
| Model 3. 3C as Team Standard Deviation, Controlling for Mean |                 |      |                    |                    |
| Trust  | -0.05           | 0.08 | -0.21              | 0.14               |
| Cohesion Strength  | -0.06           | 0.08 | -0.29              | 0.02               |

*Note.*  $N = 49$ . All indirect effects are examining perceived team effectiveness.

***Hypotheses 5-6***

Hypothesis 5 proposed that strong team PS is positively related to trust and cohesion. The first half was tested with a bivariate correlation ( $r = .03$ ,  $p = .417$ ), which was nonsignificant. Additional analyses were conducted with PS aggregated as team mean ( $r = .03$ ,  $p = .409$ ) and team standard deviation ( $r = -.01$ ,  $p = .471$ ). Thus, Hypothesis 5a was not supported. Next, the relationship between strength of PS and cohesion strength was analyzed ( $r = .14$ ,  $p = .165$ ). Due to the insignificant findings, the relationship between PS and cohesion was further examined using PS mean controlling for PS standard deviation ( $r = .17$ ,  $p = .123$ ) and PS standard deviation controlling for PS mean ( $r = -.11$ ,  $p = .234$ ), which also failed to support Hypothesis 5b.

Hypothesis 6 suggested strength of team PS is related to performance through the mediation of trust and cohesion strength. Trust and cohesion were tested as parallel mediators in PROCESS Model 4. Results were insignificant for PS strength,  $F(1, 47) = 1.62, p = .209$ , as well as supplemental analyses with PS team mean,  $F(2, 46) = 1.71, p = .192$ , and PS team standard deviation,  $F(2, 46) = 1.71, p = .192$ , were also nonsignificant. Therefore, Hypothesis 6 was not supported. Indirect effects of these relationships are provided in Table 11.

**Table 11**

*Indirect Effects of PS on Performance through Trust and Cohesion Strength*

| Variable   | Indirect Effect | SE   | LLCI <sub>95</sub> | ULCI <sub>95</sub> |
|--|-----------------|------|--------------------|--------------------|
| Model 1. PS as Team Strength                                 |                 |      |                    |                    |
| Trust  | 0.06            | 0.04 | -0.08              | 0.10               |
| Cohesion Strength  | 0.03            | 0.03 | -0.02              | 0.11               |
| Model 2. PS as Team Mean, Controlling for Standard Deviation |                 |      |                    |                    |
| Trust  | 0.01            | 0.06 | -0.10              | 0.14               |
| Cohesion Strength  | 0.04            | 0.05 | -0.02              | 0.16               |
| Model 3. PS as Team Standard Deviation, Controlling for Mean |                 |      |                    |                    |
| Trust  | -0.01           | 0.08 | -0.16              | 0.18               |
| Cohesion Strength  | -0.03           | 0.05 | -0.15              | 0.04               |

*Note.*  $N = 49$ . All indirect effects are examining perceived team effectiveness.

***Hypotheses 7-8***

Hypothesis 7 proposed that culture distance moderates the relationship between team strength of 3C and both trust and cohesion. This was tested using PROCESS Model 1. The result was not significant for 3C strength,  $F(3, 45) = 1.16, p = .334$ , or for supplemental analyses examining 3C mean when controlling for 3C standard deviation,  $F(4, 44) = 0.28, p = .887$ , or 3C standard deviation controlling for 3C mean,  $F(4, 44) = 0.82, p = .521$ . Therefore, Hypothesis 7a was not



supported. See Table 12 for direct effects of each model. To examine potential patterns, the interaction was plotted in Figure 4. Opposite the hypothesized direction, 3C strength seemed to be positively related to trust in low culture distance teams, negatively related to trust in high culture teams, and unrelated to trust for average culture distance; these results should not be overinterpreted given the lack of statistical significance.

**Table 12**

*Direct Effects in the Moderation between 3C and Trust*

| Effect   | $\beta$ | SE   | $p$  | LLCI <sub>95</sub> | ULCI <sub>95</sub> |
|--|---------|------|------|--------------------|--------------------|
| Model 1: 3C as Team Strength                                 |         |      |      |                    |                    |
| 3C   | -0.01   | 0.25 | .968 | -0.52              | 0.50               |
| Cultural Distance  | 0.00    | 0.01 | .718 | -0.02              | 0.03               |
| 3C*Cultural Distance   | -0.36   | 0.22 | .112 | -0.80              | 0.09               |
| Model 2: 3C as Team Mean, Controlling for Standard Deviation |         |      |      |                    |                    |
| 3C   | -0.03   | 0.06 | .603 | -0.16              | 0.09               |
| Cultural Distance  | 0.01    | 0.01 | .479 | -0.01              | 0.03               |
| 3C*Cultural Distance   | -0.02   | 0.05 | .694 | -0.13              | 0.09               |
| (Control) 3C Stnd. Dev.                                      | -0.04   | 0.06 | .579 | -0.17              | 0.09               |
| Model 3: 3C as Team Standard Deviation, Controlling for Mean |         |      |      |                    |                    |
| 3C   | 0.00    | 0.07 | .993 | -0.14              | 0.14               |
| Cultural Distance  | 0.00    | 0.01 | .694 | -0.02              | 0.03               |
| 3C*Cultural Distance   | 0.09    | 0.06 | .141 | -0.03              | 0.21               |
| (Control) 3C Mean  | -0.03   | 0.06 | .626 | -0.14              | 0.09               |

*Note.*  $N = 49$ .

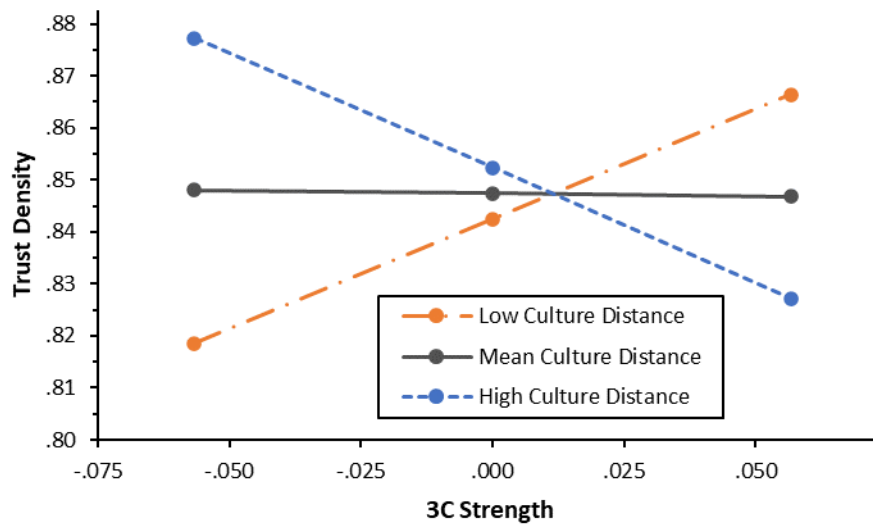


Figure 4. Interaction between Culture Distance and 3C predicting Trust  
(Insignificant)

Next the moderation between team strength of 3C and cohesion was examined. Results were not significant,  $F(3, 45) = .91, p = .445$ . Supplemental analyses were also nonsignificant for 3C mean after controlling for 3C standard deviation,  $F(4, 44) = .44, p = .777$ , and 3C standard deviation after controlling for 3C mean,  $F(4, 44) = .65, p = .628$ . Thus, Hypothesis 7b was not supported. Direct effects for these relationships are provided in Table 13. Caution should be given when interpreting the interaction due to the lack of statistical significance, though it appeared that 3C strength was positively related to cohesion, especially as culture distance in the team increased (see Figure 5).

**Table 13***Direct Effects in the Moderation between 3C and Cohesion Strength*

| Effect   | $\beta$ | SE   | $p$  | LLCI <sub>95</sub> | ULCI <sub>95</sub> |
|--|---------|------|------|--------------------|--------------------|
| Model 1: 3C as Team Strength                                 |         |      |      |                    |                    |
| 3C   | 0.73    | 0.52 | .167 | -0.32              | 1.77               |
| Cultural Distance  | 0.02    | 0.02 | .441 | -0.03              | 0.06               |
| 3C*Cultural Distance   | 0.50    | 0.45 | .275 | -0.41              | 1.42               |
| Model 2: 3C as Team Mean, Controlling for Standard Deviation |         |      |      |                    |                    |
| 3C   | 0.07    | 0.12 | .587 | -0.18              | 0.32               |
| Cultural Distance  | 0.01    | 0.02 | .604 | -0.03              | 0.06               |
| 3C*Cultural Distance   | 0.05    | 0.11 | .608 | -0.16              | 0.27               |
| (Control) 3C Std. Dev.                                       | -0.14   | 0.13 | .303 | -0.40              | 0.13               |
| Model 3: 3C as Team Standard Deviation, Controlling for Mean |         |      |      |                    |                    |
| 3C   | -0.19   | 0.14 | .188 | -0.47              | 0.09               |
| Cultural Distance  | 0.02    | 0.02 | .453 | -0.03              | 0.06               |
| 3C*Cultural Distance   | -0.13   | 0.12 | .305 | -0.37              | 0.12               |
| (Control) 3C Mean  | 0.05    | 0.12 | .663 | -0.18              | 0.28               |

Note.  $N = 49$ .

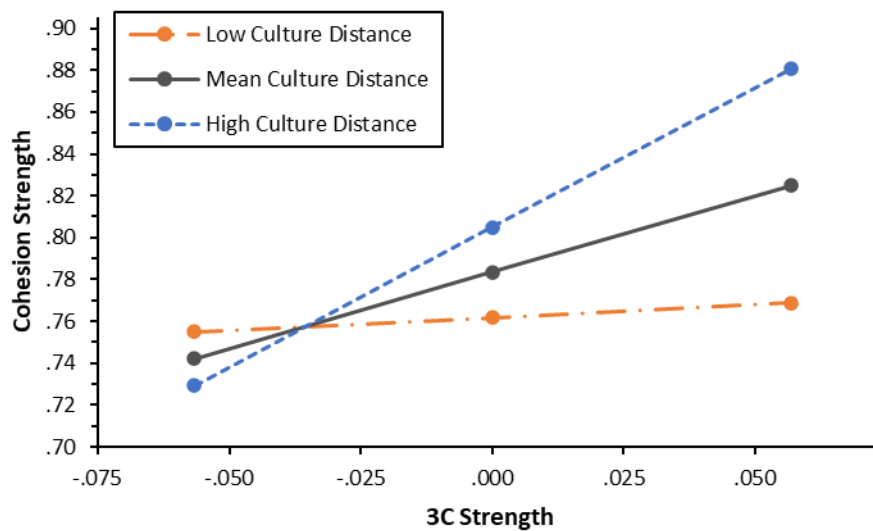


Figure 5. Interaction between Culture Distance and 3C predicting Cohesion

(Insignificant)

Next, Model 8 was used to test Hypothesis 8, the moderated mediation model through which 3C strength was proposed to predict team effectiveness. The model for 3C strength approached significance at the .05 level,  $F(5, 43) = 2.32, p = .059$ . Supplemental analyses were not significant: 3C mean, after controlling for 3C standard deviation,  $F(6, 42) = 1.95, p = .095$ ; 3C standard deviation, after controlling for 3C mean,  $F(6, 42) = 2.03, p = .083$ . Results for Hypothesis 7 found 3C strength did not significantly predict trust or cohesion strength. Therefore, statistical evidence for mediation did not exist and Hypothesis 8 was not supported.

For exploratory purposes, the model for 3C strength was further examined. First, the reason behind the near significance of the model was investigated. No terms significantly predicted performance, though trust density approached significance ( $\beta = 1.24, p = .057$ ; see Table 14). PROCESS also provided tests for 3C by mediator interactions, which if significant would suggest a potential moderation rather than mediation relationship. In line with the current framework, 3C strength and cohesion did not interact,  $F(1, 42) = 0.21, p = .646$ . However, the interaction between 3C strength and trust was significant,  $F(1, 42) = 5.34, p = .026$ . This was explored further in Exploratory Analyses.

Next, conditional direct and indirect effects of 3C strength on performance were examined based on cultural distance at the mean and  $\pm 1$  SD (see Table 15). Conditional indirect effects were calculated through bootstrapping. Regardless of the level of cultural distance, all conditional direct effects were not significant. This was also the case for all conditional indirect effects through trust density, as related

**Table 14**

*Regression Results for the Moderated Mediation between 3C Strength and Performance*

| Effect                       | $\beta$ | SE   | $p$  | LLCI <sub>95</sub> | ULCI <sub>95</sub> |
|------------------------------|---------|------|------|--------------------|--------------------|
| Model 1: 3C as Team Strength |         |      |      |                    |                    |
| 3C                           | -0.19   | 1.06 | .860 | -2.33              | 1.95               |
| Trust Density                | 1.24    | .637 | .058 | -0.04              | 2.53               |
| Cohesion Strength            | 0.53    | 0.31 | .091 | -0.09              | 1.16               |
| Cultural Distance            | -0.07   | 0.05 | .152 | -0.16              | 0.03               |
| 3C*Cultural Distance         | -0.77   | 0.96 | .425 | -2.70              | 1.16               |

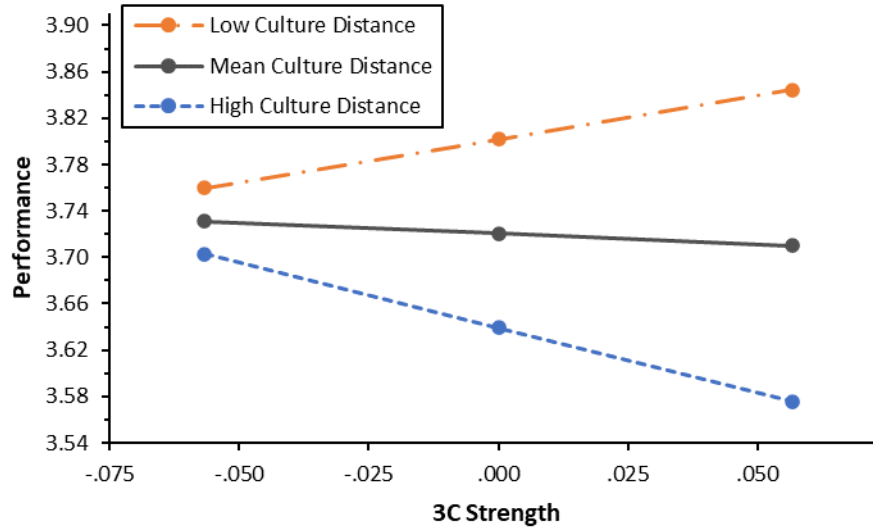
*Note.*  $N = 49$

95% confidence intervals (CI) crossed zero. However, CIs suggest 3C strength significantly predicted performance through cohesion at the mean and +1 SD of cultural distance, though was not significant at -1 SD of culture distance. Simply put, results suggest that 3C strength predicts performance through cohesion when culture distance is not low, and that the predictive power increases as culture distance increases. The interaction between 3C strength and culture distance on performance is graphed in Figure 6. Opposite the hypothesized direction, it seemed that 3C strength improved performance in low culture distance teams and reduced performance in high culture distance teams, while it had minimal effect on teams with average culture distance. Again, the lack of statistical significance means one should not have overconfidence when interpreting these results.

**Table 15***Conditional Direct and Indirect Effects of 3C Strength on Performance*

| Effect  | $\beta$ | SE   | <i>p</i> | LLCI <sub>95</sub> | ULCI <sub>95</sub> |
|---|---------|------|----------|--------------------|--------------------|
| <b>Conditional Direct Effects</b>                             |         |      |          |                    |                    |
| -1 SD Cultural Distance                                       | 0.74    | 1.22 | .545     | -1.72              | 3.21               |
| Mean Cultural Distance  | -0.19   | 1.06 | .860     | -2.33              | 1.95               |
| +1 SD Cultural Distance                                       | -1.12   | 1.86 | .549     | -4.86              | 2.62               |
| <b>Conditional Indirect Effects through Trust</b>             |         |      |          |                    |                    |
| -1 SD Cultural Distance                                       | 0.52    | 0.47 | -        | -0.03              | 1.79               |
| Mean Cultural Distance  | -0.01   | 0.31 | -        | -0.62              | 0.65               |
| +1 SD Cultural Distance                                       | -0.55   | 0.54 | -        | -1.79              | 0.33               |
| <b>Conditional Indirect Effects through Cohesion Strength</b> |         |      |          |                    |                    |
| -1 SD Cultural Distance                                       | 0.07    | 0.37 | -        | -0.30              | 1.12               |
| Mean Cultural Distance  | 0.39    | 0.38 | -        | 0.00               | 1.45               |
| +1 SD Cultural Distance                                       | 0.71    | 0.57 | -        | 0.02               | 2.30               |

*Note.* *N* = 49. -1 SD = -1.21; Mean = 0.00; +1 SD = 1.21.



*Figure 6. Interaction between Culture Distance and 3C predicting Performance*

*(Insignificant)*

### *Hypotheses 9-10*

Hypothesis 9 proposed culture distance moderates the relationship between PS strength and trust and cohesion. Using PROCESS Model 1, the first set of models examined whether culture distance moderates the relationship between PS and trust. Results were insignificant for team strength of PS,  $F(3, 45) = 0.21, p = .890$ , as well as in supplemental analyses examining PS as team mean,  $F(4, 44) = 0.14, p = .967$ , and team standard deviation,  $F(4, 44) = 0.17, p = .953$  (see Table 16). Therefore, Hypothesis 9a was not supported. Though statistically insignificant, the interaction pattern was opposite the hypothesized direction, suggesting PS strength positively relates to trust in high cultural distance teams (see Figure 7).

**Table 16**

*Direct Effects in the Moderation between PS and Trust*

| Effect   | $\beta$ | SE   | $p$  | LLCI <sub>95</sub> | ULCI <sub>95</sub> |
|--|---------|------|------|--------------------|--------------------|
| Model 1: PS as Team Strength                                 |         |      |      |                    |                    |
| PS   | 0.06    | 0.22 | .797 | -0.39              | 0.50               |
| Cultural Distance  | 0.01    | 0.01 | .488 | -0.01              | 0.03               |
| PS*Cultural Distance   | 0.06    | 0.17 | .743 | -0.29              | 0.40               |
| Model 2: PS as Team Mean, Controlling for Standard Deviation |         |      |      |                    |                    |
| PS   | 0.02    | 0.05 | .755 | -0.09              | 0.12               |
| Cultural Distance  | 0.01    | 0.01 | .497 | -0.02              | 0.03               |
| PS*Cultural Distance   | 0.01    | 0.04 | .898 | -0.08              | 0.09               |
| (Control) PS Stnd. Dev.                                      | -0.01   | 0.06 | .910 | -0.12              | 0.11               |
| Model 3: PS as Team Standard Deviation, Controlling for Mean |         |      |      |                    |                    |
| PS   | -0.01   | 0.06 | .888 | -0.13              | 0.11               |
| Cultural Distance  | 0.01    | 0.01 | .479 | -0.01              | 0.03               |
| PS*Cultural Distance   | -0.02   | 0.04 | .717 | -0.11              | 0.07               |
| (Control) PS Mean  | 0.01    | 0.05 | .769 | -0.08              | 0.11               |

*Note.*  $N = 49$ .

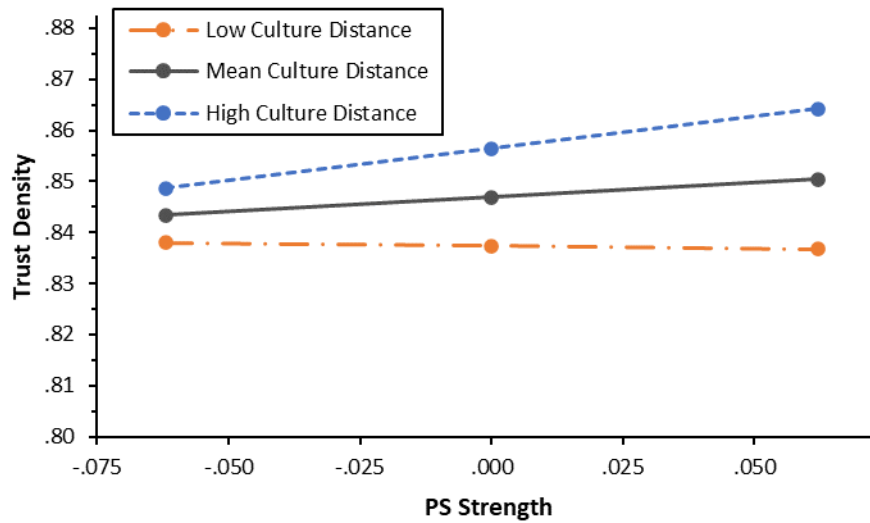


Figure 7. Interaction between Culture Distance and PS predicting Trust  
(Insignificant)

Second, whether culture distance moderates the relationship between PS and cohesion strength was tested. Findings were insignificant for primary and supplemental analyses: PS as team strength,  $F(3, 45) = 0.62, p = .606$ ; PS as team mean,  $F(4, 44) = 0.63, p = .646$ ; PS as team standard deviation,  $F(4, 44) = 0.78, p = .543$ . Hypothesis 9b was not supported. Direct effects are provided in Table 17. It appeared PS strength positively relates to cohesion, though against the hypothesized directionality this relationship was strongest for high culture distance teams and weakest for low culture distance teams (see Figure 8.)

**Table 17**

| <i>Direct Effects in the Moderation between PS and Cohesion Strength</i> |         |      |      |                    |                    |
|--|---------|------|------|--------------------|--------------------|
| Effect   | $\beta$ | SE   | $p$  | LLCI <sub>95</sub> | ULCI <sub>95</sub> |
| Model 1: PS as Team Strength   |         |      |      |                    |                    |
| PS   | 0.47    | 0.45 | .299 | -0.43              | 1.37               |
| Cultural Distance  | 0.02    | 0.02 | .512 | -0.03              | 0.06               |
| PS*Cultural Distance   | 0.25    | 0.34 | .479 | -0.45              | 0.94               |



**Table 17***Direct Effects in the Moderation between PS and Cohesion Strength*

| Model 2: PS as Team Mean, Controlling for Standard Deviation |       |      |      |       |      |
|--|-------|------|------|-------|------|
| PS   | 0.12  | 0.10 | .260 | -0.09 | 0.33 |
| Cultural Distance  | 0.02  | 0.02 | .468 | -0.03 | 0.06 |
| PS*Cultural Distance   | -0.01 | 0.08 | .900 | -0.18 | 0.15 |
| (Control) PS Std. Dev.                                       | -0.10 | 0.12 | .416 | -0.33 | 0.14 |
| Model 3: PS as Team Standard Deviation, Controlling for Mean |       |      |      |       |      |
| PS   | -0.10 | 0.12 | .375 | -0.34 | 0.13 |
| Cultural Distance  | 0.02  | 0.02 | .447 | -0.03 | 0.06 |
| PS*Cultural Distance   | -0.07 | 0.09 | .441 | -0.25 | 0.11 |
| (Control) PS Mean  | 0.12  | 0.10 | .207 | -0.07 | 0.32 |

Note.  $N = 49$ .

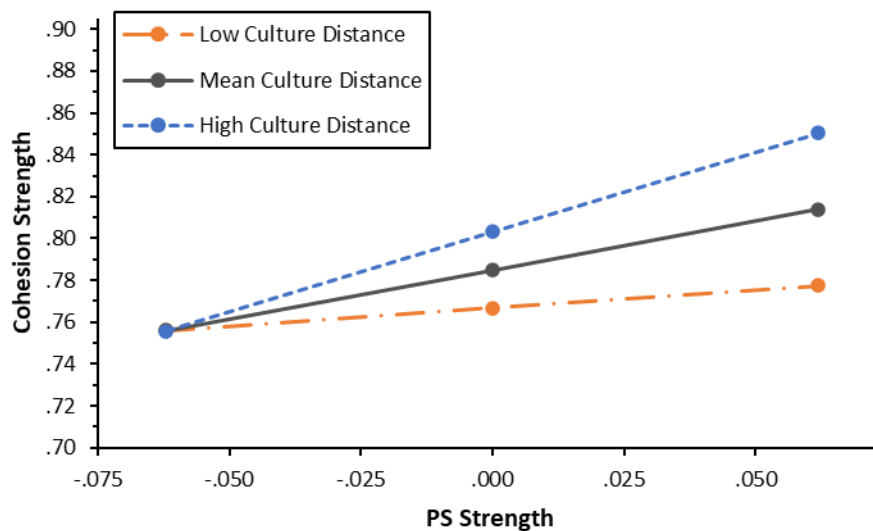


Figure 8. Interaction between Culture Distance and PS predicting Cohesion  
(Insignificant)

Next, Hypothesis 10, which examines a moderated mediation relationship between PS strength and perceived team effectiveness, was tested using PROCESS Model 8. The full model predicting perceived team effectiveness was significant,  $F(5, 43) = 2.55, p = .042, R^2 = .23$ . The exploratory analysis examining PS mean

after controlling for PS standard deviation was also significant,  $F(6, 42) = 2.51, p = .036, R^2 = .26$ , and PS standard deviation after controlling for PS mean approached significance,  $F(6, 42) = 2.27, p = .055$ . However, Hypothesis 10 was not supported as the mediation paths through trust and cohesion were not significant (see Hypothesis 9). The significant prediction of performance was likely due to trust density, the only significant term in the final models (see Table 18). Conditional direct and indirect effects at the three levels of cultural distance were not significant, though the general pattern indicated PS strength improved performance, especially for low cultural distance teams (see Figure 9).

**Table 18**

*Regression Results for the Moderated Mediation between PS and Performance*

| Effect   | $\beta$ | SE   | $p$  | LLCI <sub>95</sub> | ULCI <sub>95</sub> |
|--|---------|------|------|--------------------|--------------------|
| Model 1: PS as Team Strength                                 |         |      |      |                    |                    |
| PS   | 0.82    | 0.88 | .356 | -0.96              | 2.61               |
| Trust Density  | 1.40    | 0.60 | .025 | 0.18               | 2.62               |
| Cohesion Strength  | 0.46    | 0.30 | .128 | -0.14              | 1.07               |
| Cultural Distance  | -0.06   | 0.05 | .192 | -0.15              | 0.03               |
| PS*Cultural Distance   | -0.50   | 0.68 | .451 | -1.87              | 0.86               |
| Model 2: PS as Team Mean, Controlling for Standard Deviation |         |      |      |                    |                    |
| PS   | 0.13    | 0.20 | .509 | -0.27              | 0.54               |
| Trust Density  | 1.41    | 0.60 | .023 | 0.21               | 2.62               |
| Cohesion Strength  | 0.39    | 0.30 | .204 | -0.22              | 0.99               |
| Cultural Distance  | -0.05   | 0.04 | .273 | -0.14              | 0.04               |
| PS*Cultural Distance   | -0.19   | 0.16 | .237 | -0.51              | 0.13               |
| (Control) PS Std. Dev.                                       | -0.23   | 0.23 | .313 | -0.69              | 0.23               |
| Model 3: PS as Team Standard Deviation, Controlling for Mean |         |      |      |                    |                    |
| PS   | -0.23   | 0.23 | .333 | -0.69              | 0.24               |
| Trust Density  | 1.41    | 0.61 | .023 | 0.19               | 2.63               |
| Cohesion Strength  | 0.41    | 0.30 | .182 | -0.20              | 1.03               |
| Cultural Distance  | -0.06   | 0.05 | .231 | -0.15              | 0.04               |
| PS*Cultural Distance   | 0.10    | 0.18 | .569 | -0.25              | 0.46               |
| (Control) PS Mean  | 0.21    | 0.19 | .282 | -0.18              | 0.60               |

Note.  $N = 49$ ; \*  $p < .05$ .

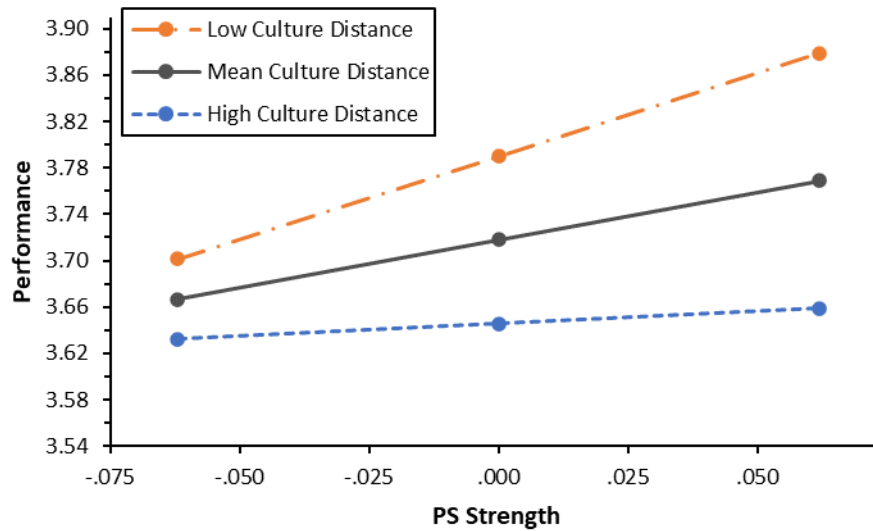


Figure 9. Interaction between Culture Distance and PS predicting Performance  
(Insignificant)

### Research Question 2

Research Question 2 asks, “Does the level of cultural distance change the joint effects of team strength PS and 3C on trust and cohesion?” This is explored using PROCESS Model 3. Whether a significant joint effect existed was determined by whether the three-way interaction between 3C, PS, and culture distance was significant. To keep the skills equivalent, 3C and PS were included in the model using the same aggregation method.

First, joint effects on trust were examined. The three-way interaction term for each aggregation was insignificant: team strength,  $\beta = -0.21, p = .965$ ; team mean,  $\beta = 0.25, p = .259$ ; and team standard deviation,  $\beta = -0.02, p = .949$ . Additionally, models did not significantly predict trust: skill strength,  $F(7, 41) = 0.74, p = .640$ ; skill mean after controlling for standard deviation,  $F(9, 39) = 0.32, p = .949$ .

= .963; and skill standard deviation after controlling for mean,  $F(9, 39) = 0.55, p = .832$ . Direct effects are provided in Table 19. Though not significant, patterns matched previous findings for 3C predicting trust, with PS slightly improving effects for high culture distance teams and slightly lowering effects for low culture distance teams (see Figure 10).

**Table 19**

*Interaction between 3C, PS, and Culture Distance on Trust*

| Effect  | $\beta$ | SE   | $p$  | LLCI <sub>95</sub> | ULCI <sub>95</sub> |
|---|---------|------|------|--------------------|--------------------|
| Model 1: 3C and PS as Team Strength                                 |         |      |      |                    |                    |
| 3C  | -0.10   | 0.32 | .765 | -0.74              | 0.55               |
| PS  | 0.06    | 0.29 | .826 | -0.53              | 0.66               |
| 3C*PS   | -0.31   | 5.61 | .957 | -11.65             | 11.03              |
| Cultural Distance   | 0.00    | 0.01 | .814 | -0.03              | 0.03               |
| 3C*Cultural Distance  | -0.54   | 0.28 | .061 | -1.10              | 0.02               |
| PS*Cultural Distance  | 0.26    | 0.25 | .313 | -0.25              | 0.77               |
| 3C*Cultural Distance*PS   | -0.21   | 4.81 | .964 | -9.92              | 9.49               |
| Model 2: 3C and PS as Team Mean, Controlling for Standard Deviation |         |      |      |                    |                    |
| 3C  | -0.06   | 0.08 | .411 | -0.22              | 0.09               |
| PS  | 0.05    | 0.07 | .419 | -0.08              | 0.19               |
| 3C*PS   | 0.30    | 0.28 | .294 | -0.27              | 0.87               |
| Cultural Distance   | 0.00    | 0.01 | .714 | -0.02              | 0.03               |
| 3C*Cultural Distance  | -0.02   | 0.06 | .739 | -0.15              | 0.11               |
| PS*Cultural Distance  | 0.03    | 0.05 | .636 | -0.08              | 0.13               |
| 3C*Cultural Distance*PS   | 0.25    | 0.22 | .259 | -0.19              | 0.69               |
| (Control) 3C Std. Dev.  | -0.05   | 0.08 | .509 | -0.21              | 0.11               |
| (Control) PS Std. Dev.  | 0.03    | 0.07 | .711 | -0.11              | 0.17               |
| Model 3: 3C and PS as Team Standard Deviation, Controlling for Mean |         |      |      |                    |                    |
| 3C  | 0.02    | 0.09 | .850 | -0.16              | 0.20               |
| PS  | -0.01   | 0.08 | .901 | -0.17              | 0.15               |
| 3C*PS   | 0.04    | 0.41 | .926 | -0.79              | 0.87               |
| Cultural Distance   | 0.00    | 0.01 | .724 | -0.02              | 0.04               |
| 3C*Cultural Distance  | 0.13    | 0.08 | .106 | -0.03              | 0.28               |
| PS*Cultural Distance  | 0.04    | 0.41 | .926 | -0.79              | 0.87               |
| 3C*Cultural Distance*PS   | -0.02   | 0.35 | .949 | -0.73              | 0.68               |
| (Control) 3C Mean   | -0.05   | 0.07 | .464 | -0.20              | 0.09               |
| (Control) PS Mean   | 0.03    | 0.06 | .648 | -0.10              | 0.15               |

*Note.*  $N = 49$ .

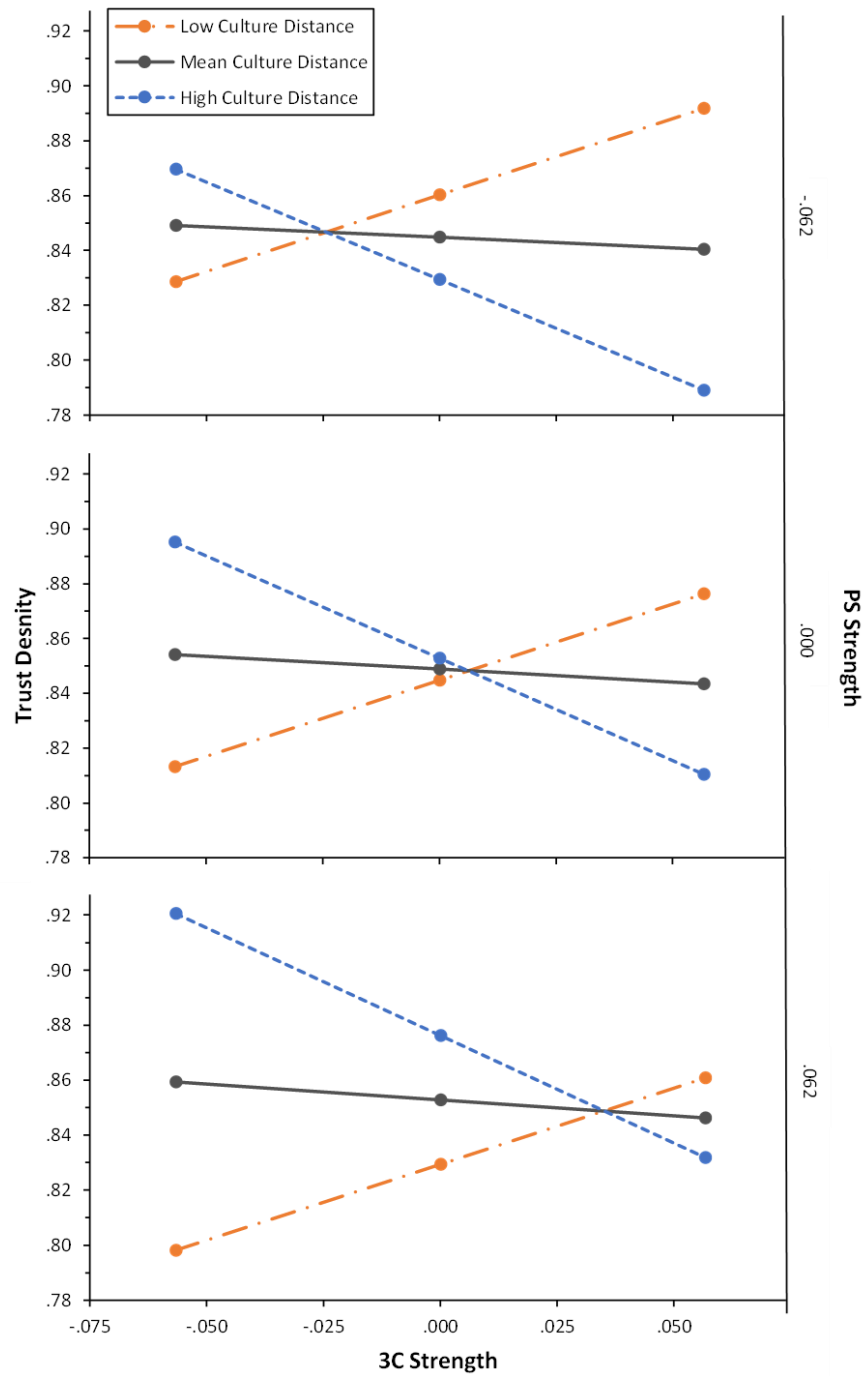


Figure 10. Interaction between Culture Distance, 3C, and PS predicting Trust  
(Insignificant)

Second, the three-way interaction on cohesion strength was examined. The three-way interaction term for all three aggregation methods were insignificant: team strength of skills,  $\beta = 10.09, p = .297$ ; team mean of skills after controlling for team standard deviation,  $\beta = -0.30, p = .487$ ; and team standard deviation of skills after controlling for team mean,  $\beta = 0.70, p = .295$ . Nor were the models predictive of cohesion strength: skill strength,  $F(7, 41) = 1.13, p = .362$ ; skill mean,  $F(9, 39) = 0.83, p = .591$ ; skill standard deviation,  $F(9, 39) = 1.29, p = .273$ . All direct effects are provided in Table 20. When PS was weak, 3C strength negatively predicted cohesion while strong PS led to 3C strength positively predicting cohesion, especially for high culture distance teams for both directions (see Figure 11).

### ***Hypothesis 11***

Finally, the full conditional model was tested using PROCESS Macro, Model 11. When 3C and PS were both inputted as team strength, mediated to perceived team effectiveness through trust density and cohesion strength, the model was significant, explaining approximately 17% of the variance in performance:  $F(3, 45) = 3.04, p = .039, R^2 = .17$ . However, the hypothesis was not supported as the pathways for 3C and PS predicting trust and cohesion were not significant (see Research Question 2).

It is likely that the significant  $p$  value in the final model is due to trust, which was the only significant single predictor ( $\beta = 1.32, p = .037$ ). As in the model for Hypothesis 8, 3C and trust significantly interacted with each other,  $F(1, 44) = 7.24, p = .010$  (see Exploratory Analyses). 3C and cohesion did not

significantly interact to predict performance,  $F(1, 44) = 0.40, p = .532$ . The conditional direct and indirect effects suggest level of cultural distance does not significantly moderate the relationship between 3C and performance, as all 95% CIs crossed zero.

**Table 20**

*Interaction between 3C, PS, and Culture Distance on Cohesion Strength*

| Effect  | $\beta$ | SE    | $p$  | LLCI <sub>95</sub> | ULCI <sub>95</sub> |
|---|---------|-------|------|--------------------|--------------------|
| Model 1: 3C and PS as Team Strength                                 |         |       |      |                    |                    |
| 3C  | 0.15    | 0.63  | .810 | -1.12              | 1.43               |
| PS  | 0.84    | 0.58  | .157 | -0.34              | 2.02               |
| 3C*PS   | 24.62   | 11.16 | .033 | 2.09               | 47.16              |
| Cultural Distance   | 0.01    | 0.03  | .842 | -0.05              | 0.06               |
| 3C*Cultural Distance  | 0.15    | 0.55  | .791 | -0.97              | 1.27               |
| PS*Cultural Distance  | 0.54    | 0.50  | .288 | -0.47              | 1.56               |
| 3C*Cultural Distance*PS   | 10.09   | 9.55  | .297 | -9.20              | 29.37              |
| Model 2: 3C and PS as Team Mean, Controlling for Standard Deviation |         |       |      |                    |                    |
| 3C  | -0.04   | 0.15  | .791 | -0.34              | 0.26               |
| PS  | 0.22    | 0.13  | .098 | -0.04              | 0.49               |
| 3C*PS   | 0.16    | 0.55  | .767 | -0.95              | 1.27               |
| Cultural Distance   | 0.04    | 0.03  | .171 | -0.02              | 0.08               |
| 3C*Cultural Distance  | 0.10    | 0.13  | .409 | -0.15              | 0.36               |
| PS*Cultural Distance  | -0.11   | 0.10  | .303 | -0.32              | 0.10               |
| 3C*Cultural Distance*PS   | -0.30   | 0.42  | .487 | -1.15              | 0.56               |
| (Control) 3C Stnd. Dev.   | -0.18   | 0.15  | .249 | -0.48              | 0.13               |
| (Control) PS Stnd. Dev.   | -0.02   | 0.14  | .880 | -0.29              | 0.25               |
| Model 3: 3C and PS as Team Standard Deviation, Controlling for Mean |         |       |      |                    |                    |
| 3C  | -0.05   | 0.17  | .753 | -0.40              | 0.29               |
| PS  | -0.20   | 0.15  | .197 | -0.51              | 0.11               |
| 3C*PS   | -0.16   | 0.13  | .227 | -0.43              | 0.10               |
| Cultural Distance   | 0.01    | 0.03  | .706 | -0.05              | 0.07               |
| 3C*Cultural Distance  | -0.05   | 0.15  | .739 | -0.35              | 0.25               |
| PS*Cultural Distance  | 1.95    | 0.78  | .017 | 0.37               | 3.53               |
| 3C*Cultural Distance*PS   | 0.70    | 0.66  | .295 | -0.64              | 2.05               |
| (Control) 3C Mean   | -0.10   | 0.14  | .483 | -0.38              | 0.18               |
| (Control) PS Mean   | 0.21    | 0.12  | .079 | -0.03              | 0.45               |

Note.  $N = 49$ .

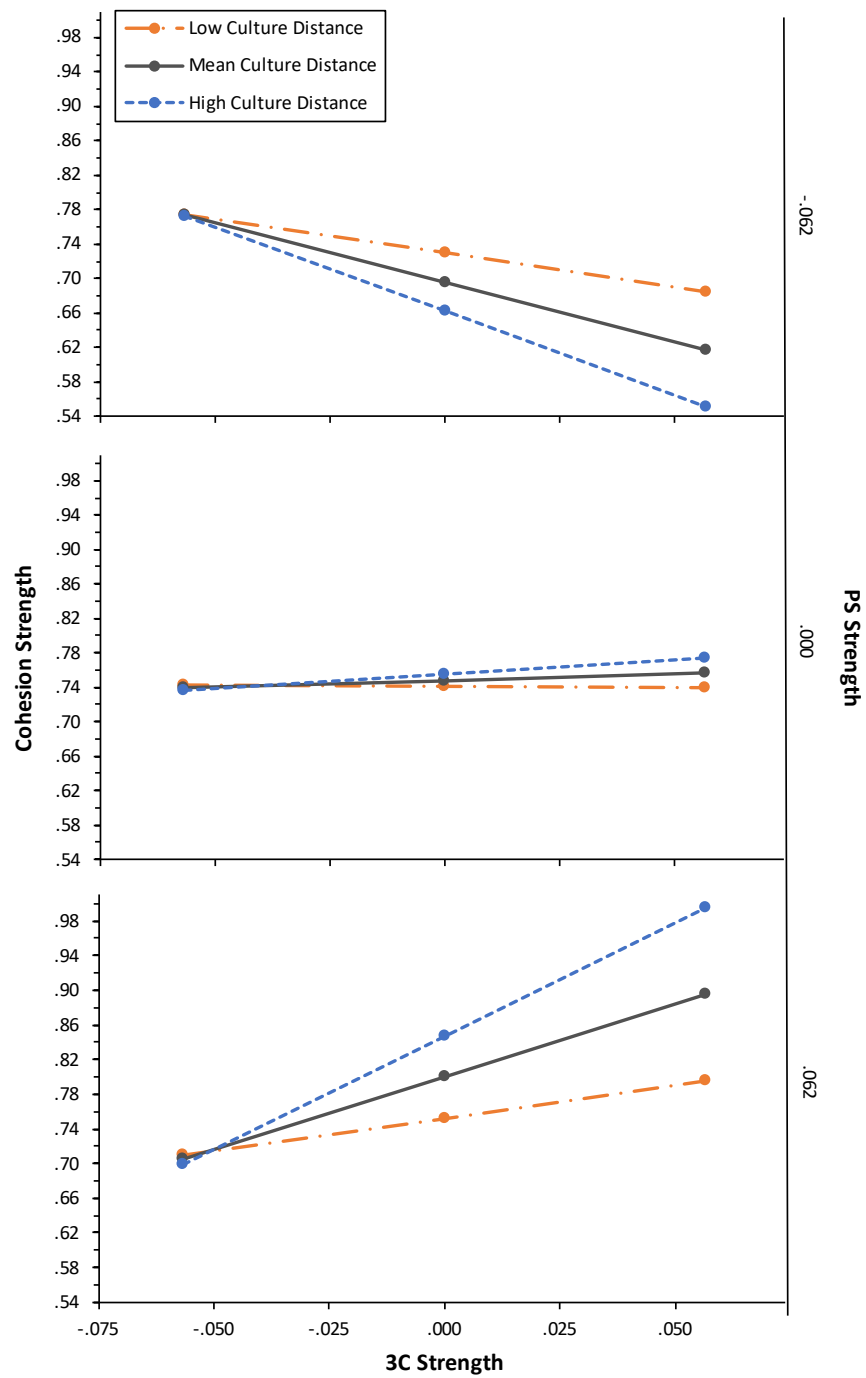


Figure 11. Interaction between Culture Distance, 3C, and PS predicting Cohesion  
(Insignificant)



## Exploratory Analyses

Exploratory analyses were conducted to explore the different aggregation methods for team skills and cohesion, as team strength could overlook important characteristics. Thus, insignificant results for 3C and PS strength were examined for team mean (controlling for standard deviation) and team standard deviation (controlling for mean), as described previously, and all models tested cohesion mean (controlling for standard deviation). Hypothesis results did not change.

Unexpectedly, an interaction effect was found between 3C strength and trust when predicting performance. This was further explored by inputting these variables in Model 1, with trust entered as a moderator. As previously indicated, this relationship was significant and explained approximately 26% of the variance in performance,  $F(3, 45) = 5.37, p = .003, R^2 = .26$ . Direct and indirect effects are provided in Table 21. When trust was high, 3C strength positively predicted performance, while 3C negatively predicted performance when trust was low (see Figure 12). Potential reasons for this relationship are considered in the Discussion.

**Table 21**

*Effects in the Moderation between 3C Strength and Trust predicting Performance*

| Direct Effect     | $\beta$ | SE    | $p$    | LLCI <sub>95</sub> | ULCI <sub>95</sub> |
|-------------------|---------|-------|--------|--------------------|--------------------|
| 3C Strength       | 0.44    | 0.91  | .631   | -1.39              | 2.28               |
| Trust             | 1.87    | 0.57  | .002** | 0.72               | 3.03               |
| 3C Strength*Trust | 36.86   | 12.74 | .006** | 11.20              | 62.53              |
| Indirect Effects  | $\beta$ | SE    | $p$    | LLCI <sub>95</sub> | ULCI <sub>95</sub> |
| -1 SD Trust       | -2.95   | 1.46  | .049*  | -5.89              | -0.01              |
| Mean Trust        | 0.44    | 0.91  | .631   | -1.39              | 2.28               |
| +1 SD Trust       | 3.83    | 1.51  | .015   | 0.79               | 6.87               |

Note.  $N = 49$ . -1 SD = -0.09; Mean = 0.00; +1 SD = 0.09.

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

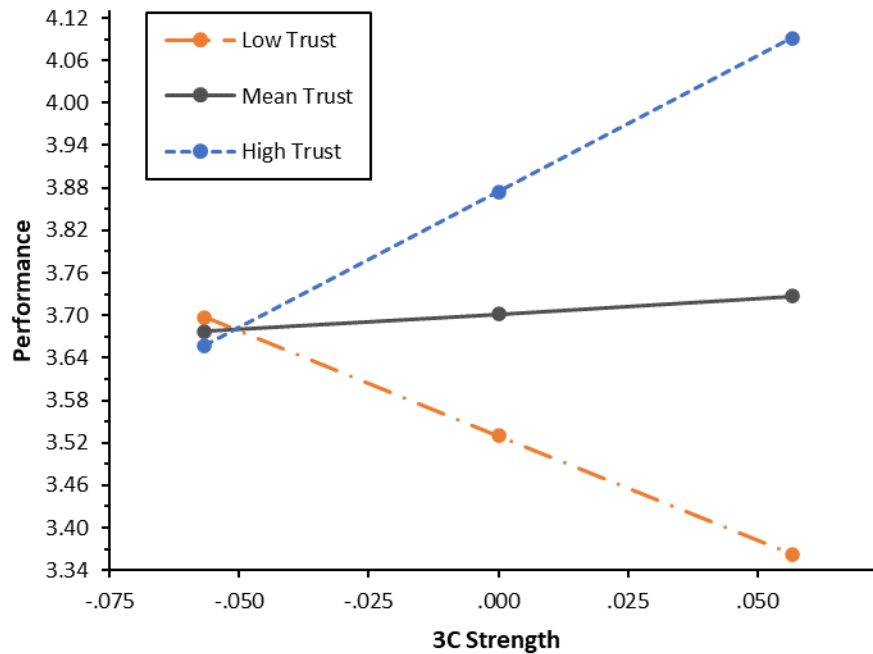


Figure 12. Interaction between 3C and Trust predicting Performance

Finally, team size and the number of nationalities in the team were considered as control variables. Team size was correlated with culture distance ( $r = .50, p < .001$ ), potentially due to the size of teams directly relating to the number of potential nationalities represented in the team. The number of nationalities seems to impact the salience of cultural differences, as it is easier to identify specific differences between someone of another country than when multiple countries are represented (van Knippenberg et al., 2004). Therefore, analyses were repeated, controlling for team size and the number of nationalities reported in the team. This did not change conclusions.

All hypothesis results are summarized in Table 22.

**Table 22***Summary of Findings*

| Hypothesis   | Outcome  |
|--|--|
| <b>H1:</b> (a) Trust and (b) cohesion are positively related to perceived team effectiveness.  | <b>Supported</b>   |
| <b>RQ 1:</b> Are trust and cohesion unidirectionally or bidirectionally related over time?   | Correlated bidirectionally, especially for cohesion mean |
| <b>H2:</b> 3C and PS are distinct constructs.  | <b>Supported</b>   |
| <b>H3:</b> Strength of team 3C is positively related to (a) trust and (b) cohesion.  | Not Supported  |
| <b>H4:</b> The positive relationship between strength of team 3C and perceived team effectiveness is mediated by trust and cohesion.   | Not Supported  |
| <b>H5:</b> Strength of team PS is positively related to (a) trust and (b) cohesion.  | Not Supported  |
| <b>H6:</b> The positive relationship between strength of team PS and perceived team effectiveness is mediated by trust and cohesion.   | Not Supported  |
| <b>H7:</b> The positive relationship between strength of team 3C and a) trust and b) cohesion is moderated by cultural distance, such that the relationship is strongest when culture distance is high.  | Not Supported  |
| <b>H8:</b> Cultural distance moderates the indirect effect of strength of team 3C on perceived team effectiveness through trust and cohesion, such that the indirect effect is strongest when cultural distance is high.   | Not Supported  |
| <b>H9:</b> The positive relationship between strength of team PS and a) trust and b) cohesion is moderated by cultural distance, such that the relationship is strongest when culture distance is low  | Not Supported  |
| <b>H10:</b> Cultural distance moderates the indirect effect of strength of team PS on perceived team effectiveness through trust and cohesion, such that the indirect effect is strongest when cultural distance is high.  | Not Supported  |
| <b>RQ 2:</b> Does the level of cultural distance change the joint effects of team strength PS and 3C on trust and cohesion?  | No Significant Relationship                              |
| <b>H11:</b> There is a direct path from team skill composition to perceived team effectiveness, with an indirect effect through trust and cohesion, where the paths from team skill to trust and cohesion are moderated by culture distance, which are further moderated by the other team strength skill. | Not Supported  |

## Chapter 6: Discussion

The current study hoped to better understand the nature of team composition in culturally diverse teams. Analyses began by replicating previous findings that trust and cohesion both predict performance. Importantly, all future analyses which were or approached significance were due in large part to the predictive power of trust to performance, even when other paths of the models were insignificant. Additionally, the current study found evidence for a bidirectional relationship between trust and cohesion over time, though a causal relationship in either direction could not be determined. It is likely that this was due to sample size, as trust predicting cohesion is well established in previous research. Whether cohesion predicts trust has been theorized less often than trust predicting cohesion, which does not necessarily mean the relationship does not exist. Results could also differ from past research due to measuring trust via network density compared to other conceptualizations which may highlight different aspects of team trust.

Second, the current study is the first to examine the relationship between 3C and PS. The two do share similarities, as seen by the moderate correlation. This was expected as both 3C and PS are socially related competencies. Simultaneously, the same evidence suggests that the two are related to distinct constructs. In other words, an individual could be high in one and low in the other. The three-way interaction, though insignificant, lent additional evidence for the two being distinct, as the combination of levels of each seemed to impact the outcome of trust and cohesion. This is useful information for the workforce, particularly for training and

selection purposes. This information could also shed more light on the importance of individual differences in cross-cultural situations.

Third, current findings did not find that either 3C or PS significantly predict either trust or cohesion. Nor did trust and cohesion mediate the relationship between team composition and performance. This result is not altogether surprising. Previous research supporting the impact 3C has on trust often involved immersive experiences over a longer period than the 4-8 months the current study lasted. Cultural differences are more overwhelming and threatening in these situations, making 3C more critical for successful adaptation. Further, the moderation of culture distance could cancel out any main effects. Failing to show a main effect between PS and either trust or cohesion could also be due to this moderation effect.

Though support was not found for 3C predicting performance through cohesion, an unexpected interaction was found. Results show that 3C strength significantly predicts performance when the moderation of trust is considered. When trust was low, strong 3C decreased performance. When trust was high, strong 3C increased performance. With an average level of trust, 3C strength seemed to improve performance only slightly. This relationship could be due to trust rewarding, or discouraging, interactions motivated by 3C. Additionally, analyses comparing team skill strength, mean, and standard deviation showed that models were more similar for strength and standard deviation than for team mean. It is possible that the calculation method for strength is more heavily impacted by

the distribution of skills in the team than for the mean. If this is the case, a smaller range of team member skills, whether high or low, could also explain the motivation to interact in ways which facilitate successful performance.

Fourth, moderation analyses did not find a statistically significant relationship for culture distance moderating the relationship between either 3C or PS to trust and cohesion. The interactions were examined for potential distinguishable patterns that merit future investigation. However, it is possible these variables are unrelated, and caution should be taken in interpreting these findings.

As hypothesized, 3C strength seemed to improve cohesion across all levels of culture distance, though its benefits were strongest as culture distance increased. However, the opposite was true for trust and performance. 3C strength decreased trust and performance in high cultural distance teams but improved these in low cultural distance teams. While 3C was hypothesized to improve trust and cohesion due to navigating cultural differences, it is also possible that awareness of these differences can lead to team members feeling singled out. Conversely, in low culture distance teams, engagements driven by curiosity would not feel threatening as there are less salient faultlines between the members. Another possible explanation, based on the three-way interaction findings, is 3C can appear inauthentic or awkward in the absence of PS, particularly in highly diverse situations. As for 3C predicting performance, it is possible that the impact 3C has on trust (namely, more positive in low culture distance teams) would be more

important than its impact on cohesion (more positive for high culture teams), due to the fact trust was consistently significant in predicting performance across models.

Results for the moderation of PS to trust and cohesion were also opposite the hypothesized direction. PS strength seemed to improve trust density and cohesion, especially as culture distance increased. This could be due to a mismatch between self-perceptions and perceptions by others. PS could be considered manipulation with positive intent. Though actual, or at least perceived, authenticity and genuineness are important for these individuals, it is possible that others do not see them as authentic and interpret their behaviors as undermining and threatening. If this is the case, the subtleties involved in PS would be more noticeable to individuals from similar cultures, leading to lower trust overall. On the other hand, individuals from another culture may perceive political skills as supportive and helpful. Interestingly, interactive effects suggest strong PS best improves performance for low culture distance teams. This could be due to the salience of cultural differences, or lack thereof, prompting interactions. In a low culture distance team, it is possible that politically skilled members assume they share general viewpoints and project expectations, and thus can be more task oriented. For the politically skilled, high culture distance could signal a need for additional information for goal achievement. Thus, the salience of differences could drive concerted effort toward social interactions, consequently building the feelings of belonging (i.e., cohesion) that may be passed over in less diverse teams.

Finally, the joint effects between 3C, PS, and culture distance on trust, cohesion, and performance were examined. The current research was interested in whether skill in one could compensate for lower skill in the other, and whether this was impacted by the context of cultural diversity. Again, results were not significant yet revealed interesting patterns. For example, it seemed that 3C was a larger driving factor in predicting trust compared to PS. The interactive effect matched previous findings for 3C predicting trust – that 3C strength improved trust in low culture distance teams and decreased trust in high culturally distant teams. PS seemed to “boost” either effect. 3C is equally helpful regardless of the level of PS, though PS seemed to increase the starting trust levels for highly diverse teams and lowered trust in the homogenous teams. This could also be due to perceptions of politically skilled team members. Culturally similar team members may have to overcome any discomfort, regardless of the politically skilled member’s level of 3C, while in diverse teams the support only enhances the positive effects of 3C.

3C was again especially important in the joint effects for predicting cohesion. When 3C was low, cohesion remained slightly below average regardless of the level of PS strength. However, as 3C strength increased, it strongly affected high and low culture distance teams. Whether this impact was beneficial or harmful depended on the level of PS strength. If PS was strong, 3C improved cohesion especially for highly diverse teams, while weak PS led to 3C strength lowering cohesion. This suggests that perhaps PS allows for effective utilization of 3C skills. If 3C strength draws people together, PS strength then informs how to interact for



the sake of a goal. Specifically, cohesion refers to achieving goals and belonging to the group. Without PS, it would be difficult to form a group identity. There could even be frustration if someone wanted to converse but in ways which distracted from attainment of the course project.

As expected based on previous results, joint effects were not significant for predicting performance.

In summary, culture distance consistently led to distinguishable patterns in moderation analysis. Unlike previously hypothesized, 3C seemed to most strongly impact low culture distance teams, while PS had the strongest effect in highly culturally distant teams. In addition, 3C and PS did seem to impact the relative effectiveness of the other, most notably for cohesion. Again however, it should be noted that these interactive effects were not significant. More research is needed before making any claims as to the generalizability of these results.

### **Limitations**

Due to this being an archival study, methodological decisions such as the research design and measures utilized were out of the control of the current researcher. The survey asked participants for the nation in which they were born, which is not always an indication of their nationality or the country in which they grew up in. It would be preferable to ask for something such as “Which country do you most identify with?” to address these variations.

Secondly, the current study utilized a weighted network density approach to measure trust. It is possible that findings do not match previous research due to a difference in measurement approaches.

Finally, as is the nature of teams' research, missing data decreased the sample size from over 100 teams to 49 teams. Though unavoidable, this sample size likely obscured any significant relationships which might exist. A larger sample should be surveyed to account for teammate response rate.

### **Future Research**

One of the most notable findings of the current study is that 3C and trust significantly interacted to predict performance. Previous research tends to look at the mediation of trust rather than its moderation. The interactive effects of trust should be further explored.

The literature review for the current study identified gaps in the research. It is hoped this work will encourage additional research efforts in these areas. First, more work should be done to compare individual competencies, especially 3C and PS. Construct proliferation is growing in the research field, and knowing which competencies are truly unique, and under what circumstances each is most useful, is helpful to both researchers and practitioners.

Additionally, though the Hofstede dimensions are the most researched cultural theory, there are other cultural perspectives worthy of exploration. Examining whether 3C and PS are still useful for navigating cultural differences from other models, such as Honor/Dignity/Face logics (Aslani et al., 2016), would

further understanding of how various cultural differences impact the team. Further, it is understood that individuals do not perfectly match the average national culture, such as in values and cultural logics (Leung & Cohen, 2011). While focusing on national values can be a helpful starting point, more work should focus on individual variances to be more applicable to the practical environment.

Finally, future research should also continue examining multiple aggregation methods. Many studies explore team mean yet disregard the impact of distribution within the team. Examining team composition via distribution, diversity indices (e.g., Blau's Diversity Index), and other conceptualizations of cultural diversity are all methodological decisions which can impact findings. The current study examined 3C, PS, and cohesion via team strength to consider both aspects of team composition. Findings across aggregations were fairly similar, though it is unclear whether this is due to the true relationship between the variables or due to the small sample size. Additional work here is needed.

## **Conclusion**

The current study provides some beginning support to explore the dynamics between 3C and PS. Initial findings support that team composition is an important consideration in diverse teams, though specific relationships were largely not significant and should be further explored. Specific implications of the results, recommended future research, and potential limitations have been discussed. It is hoped that future researchers will continue exploring the impact of composition of individual differences in culturally diverse teams.

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## Appendix A: Survey Items

### SURVEY 1

#### Individual Differences and Background

Thank you for agreeing to participate in our study! In the following section, we are asking questions about basic demographics, your past experiences, and your individual differences (e.g., personality and traits). Your input is extremely important to this project and we appreciate your help in understanding how teams work together!

**We appreciate you responding to all questions honestly. Your responses will remain entirely confidential and will only be used for research purposes.**

#### **Demographics**

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I identify my gender as:

1. Male
2. Female
3. Non-binary/third gender
4. Prefer to self-describe \_\_\_\_\_
5. Prefer not to say

What is your age, in **years**? \_\_\_\_\_

I identify my race as (check all that apply):

1. Asian
2. Black/African
3. Caucasian
4. Hispanic or Latinx
5. Native American/American Indian
6. Native Hawaiian
7. Pacific Islander
8. Prefer to self-identify \_\_\_\_\_
9. Prefer not to say

In which country were you born?

- If United States: In which state were you born?

Are you an international student?

1. Yes
2. No

*Display logic: if yes is selected, display "Is English your native language?"*

Is English your native language?

1. Yes
2. No (if no, what is your native language?)

*Display logic: If yes is not selected, display "Please rate how comfortable you feel communicating in English."*

Please rate how comfortable you feel communicating in English.

1. Extremely uncomfortable
2. Somewhat uncomfortable
3. Neither comfortable nor uncomfortable
4. Somewhat comfortable
5. Extremely comfortable

How often have you worked with each teammate in the past?

1. Never
2. Rarely
3. Sometimes
4. Often
5. All of the Time

*Repeated for each teammate*

How familiar are you with each of your teammates?

1. I have never met them
2. I do not know them well
3. We are acquaintances
4. We are friends
5. We are best friends

*Repeated for each teammate*

**Cross-Cultural Competence (3C Navigator)***ICCM (2019)*

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For the following statements, please indicate how strongly you **agree or disagree**.

1. I can identify which past experiences have contributed to the person I am today.
2. Understanding who I am is important to me.
3. I think about my progress as I work towards my goals.
4. I understand how my philosophies impact my decisions.
5. I am aware of my habits.
6. \*I have spent little time thinking about my values.
7. I appreciate opportunities to learn about different traditions.
8. International news interests me.
9. I prefer to travel outside of the country.
10. I would enjoy a discussion about the evolution of modern language.
11. I enjoy learning about international content/subject matter.
12. I would appreciate an opportunity to learn a second language.
13. \*I find talking to individuals from other backgrounds stressful.
14. I enjoy working with international coworkers.
15. I find it easy to maintain long distance relationships.
16. \*Maintaining friendships with individuals who have different values is difficult.
17. When I have different beliefs than my friends, it does not harm our relationship.
18. When others don't speak my language well, it is worth the extra effort to listen closely.
19. I am confident that I will get along with new people I meet.
20. Typically, I have positive interactions with new people.
21. I am open to learning about ideas and behaviors that are different from mine.
22. I believe I would do well in new situations.
23. Being in new places is enjoyable.
24. Being in a new situation is a positive experience.
25. I do not let setbacks get me down.
26. I bounce back quickly from adversity.
27. \*Negative experiences put me in a bad mood for the rest of the day.
28. \*When something bad happens to me, I cannot stop thinking about it.
29. I remain optimistic even after facing setbacks.
30. \*I have a tendency to fixate on negative events.

Scale

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Agree Nor disagree
- 4 = Agree
- 5 = Strongly Agree

**Political Skill***Ferris et al. (2005)*

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For the following statements, please indicate how strongly you **agree or disagree**.

1. I spend a lot of time and effort at work networking with others.
2. I am able to make most people feel comfortable and at ease around me.
3. I am able to communicate easily and effectively with others.
4. It is easy for me to develop good relationships with most people.
5. I understand people very well.
6. I am good at building relationships with influential people at work.
7. I am particularly good at sensing the motivations and hidden agendas of others.
8. When communicating with others, I try to be genuine in what I say and do.
9. At work, I know a lot of important people and am well connected.
10. I spend a lot of time at work developing connections with others.
11. I am good at getting people to like me.
12. It is important that people believe I am sincere in what I say and do.
13. I try to show a genuine interest in other people.
14. I am good at using my connections and network to make things happen at work.
15. I have good intuition about how to present myself to others.
16. I always seem to instinctively know the right things to say or do to influence others.
17. I pay close attention to people's facial expressions.

Scale

1 = Strongly Disagree

2 = Disagree

3 = Neither Agree Nor disagree

4 = Agree

5 = Strongly Agree

## SURVEY 2

### Team Processes

#### **Trust**

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*Ferris et al. (2005)*

Please indicate how much you trust each of your teammates.

1. [Teammate's name]
2. ...
3. [Last teammate's name]

Scale

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Agree Nor disagree
- 4 = Agree
- 5 = Strongly Agree

#### **Cohesion**

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*Chin et al. (1999)*

For the following statements, please indicate how strongly you **agree or disagree**.

1. I feel that I belong to this group.
2. I am happy to be part of this group.
3. I see myself as part of this group.
4. This group is one of the best anywhere.
5. I feel that I am a member of this group.
6. I am content to be part of this group.

Scale

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Agree Nor disagree
- 4 = Agree
- 5 = Strongly Agree

**Perceived Team Effectiveness***Gibson et al. (2003)*

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For the following statements listed, please indicate how strongly you **agree or disagree**.

1. This team meets its deadlines.
2. \*This team wastes time.
3. The team provides deliverables (e.g., products or services) on time.
4. \*This team is slow.
5. This team adheres to its schedule.
6. This team finishes its work in a reasonable about of time.
7. This team has a low error rate.
8. This team does high quality work.
9. This team consistently provides high-quality output.
10. This team is consistently error-free.
11. \*This team needs to improve its quality of work.
12. This team will get a great grade on our final project.

Scale

1 = Strongly Disagree

2 = Disagree

3 = Neither Agree Nor disagree

4 = Agree

5 = Strongly Agree

## Appendix B: Racial and National Frequencies

**Table B1**

*Frequency of Respondent Races*

| Variable          | <i>f</i> | Percent of Responses |
|-------------------|----------|----------------------|
| Asian             | 44       | 15.6 %               |
| Black             | 18       | 6.4 %                |
| Caucasian         | 119      | 42.2 %               |
| Native American   | 1        | 0.4 %                |
| Prefer not to say | 8        | 2.8 %                |

Note: *N* = 203; 8 respondents reported more than one race.

**Table B2**

*Frequency of Respondent Nations*

| Nation     | <i>f</i> | Percent of Responses | Nation            | <i>f</i> | Percent of Responses |
|------------|----------|----------------------|-------------------|----------|----------------------|
| Argentina  | 1        | 0.4 %                | Netherlands       | 1        | 0.4 %                |
| Bangladesh | 1        | 0.4 %                | Nigeria           | 1        | 0.4 %                |
| Bolivia    | 1        | 0.4 %                | *Oman             | 4        | 1.4 %                |
| Brazil     | 3        | 1.1 %                | Pakistan          | 1        | 0.4 %                |
| China      | 16       | 5.7 %                | Portugal          | 1        | 0.4 %                |
| Colombia   | 1        | 0.4 %                | Qatar             | 1        | 0.4 %                |
| Egypt      | 1        | 0.4 %                | *Rwanda           | 1        | 0.4 %                |
| Ethiopia   | 1        | 0.4 %                | South Korea       | 2        | 0.7 %                |
| France     | 1        | 0.4 %                | Saudi Arabia      | 4        | 1.4 %                |
| Ghana      | 1        | 0.4 %                | Senegal           | 1        | 0.4 %                |
| Honduras   | 1        | 0.4 %                | Spain             | 1        | 0.4 %                |
| India      | 8        | 2.8 %                | Sri Lanka         | 1        | 0.4 %                |
| Italy      | 1        | 0.4 %                | *Sri Lanka        | 1        | 0.4 %                |
| Jamaica    | 3        | 1.1 %                | Thailand          | 2        | 0.7 %                |
| Japan      | 1        | 0.4 %                | *Togo             | 1        | 0.4 %                |
| Kenya      | 1        | 0.4 %                | Trinidad & Tobago | 2        | 0.7 %                |
| Kuwait     | 1        | 0.4 %                | UAE               | 4        | 1.4 %                |
| Latvia     | 1        | 0.4 %                | USA               | 113      | 40.1 %               |
| Libya      | 2        | 0.7 %                | Venezuela         | 6        | 2.1 %                |
| Lithuania  | 1        | 0.4 %                | Vietnam           | 2        | 0.7 %                |
| Mexico     | 1        | 0.4 %                |                   |          |                      |

Note: *N* = 203; \* Hofstede data unavailable and replaced with: UAE (Oman), Tanzania (Rwanda & Uganda), Dominican Republic (Saint Lucia), Ghana (Togo).