DIVERSITY FAULTLINES: EXPLORING THE RELATIONSHIP TO INDIVIDUAL-LEVEL EMPLOYEE ENGAGEMENT AND EMPLOYEE PERCEPTIONS OF ORGANIZATIONAL HRM PRACTICES

by

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(Under the Direction of KECIA M. THOMAS)

ABSTRACT

This study examined the influence of different types of diversity faultlines (socio-demographic: gender, generation, race; knowledge-based: organizational tenure and organizational role level; Geo-proximal: geographic location) on employee engagement measured at the individual-level, along with the potential contextual moderator of Human Resource Management (HRM) practices. All three faultline types showed a significant relationship to employee engagement, with socio-demographic faultlines found to be positive and the strongest in magnitude followed by knowledge-based (positive) then geo-proximal (negative). This suggests that diversity faultlines are important beyond just their relationship to team-level outcomes. Employee perceptions of the organization's HRM did not serve as a significant contextual moderator. Multi-level modeling was used in this study.

INDEX WORDS: Diversity, Faultlines, Human Resource Management, Employee Engagement, Generation, Gender, Age, Organizational Tenure, Teams, Virtual Teams

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DEDICATION

This dissertation is dedicated to the very special "tribe" that has given me the strength, encouragement and support to achieve my goals. This would not be possible without you. You have each played a major role in who I am today.

First, a special recognition to my family. My parents, Debbie Hoy and Brian Eckart, thank you for encouraging me when I needed a cheerleading team and for equally being my mirror when I needed tough love. Mom, I am especially grateful for your personal sacrifices and your unwavering belief in me. You taught me that anything is possible then gave me the confidence to go chase it. To my sister, Maddie, thank you for inspiring me each day to be my most authentic self and to not be afraid to chart my own path in life.

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Last, I would also like to dedicate this dissertation to two very important professional role models in my life, Scott Boston and Tina Busch. You each gave me the chance to live out my passion, you believed in me when I didn't know if I was capable, and you pushed me to become my personal best. You have opened my eyes to what is possible and I go into the world better as a result of the teachings from each of you.

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INTRODUCTION

Purpose of the Study

In 1998, Williams and O'Reilly contributed one of the largest comprehensive reviews of the diversity literature when they examined over 40 years of research. In this seminal analysis they ultimately concluded that diversity, defined as "any attribute people use to tell themselves that another person is different" (p. 81), can have both positive and negative effects on team (or group) functioning given significant empirical findings supporting both outcomes. They also concluded that we need to evolve as a field when it comes to our conceptualization and examination of diversity. Historically, diversity research tends to examine the role of group composition on team and individual level outcomes through focusing on the heterogeneity or dispersion of a single attribute within the team (i.e., considering the amount of variance of one demographic attribute at a time such as age, tenure, or race; see Williams & O'Reilly, 1998 for a full review). With substantial evidence that variations in team diversity composition have significant effects on team functioning but mixed results regarding the nature of the effects, researchers have recently become interested in an approach that captures diversity as more complex whereby the distribution and cumulative effects of multiple attributes are considered simultaneously (Bell, Villado, Lukasik, Belau, & Briggs, 2010; Harrison & Klein, 2007; Lau & Murnighan, 1998; Thatcher, Jehn, & Zanutto, 2003; Williams & O'Reilly, 1998).

Originally introduced by Lau and Murnighan (1998), the idea of group faultlines provides a way to focus on the alignment and distribution of multiple diversity attributes simultaneously within a team; a departure from the more traditional approach of assessing just one diversity attribute such as ethnicity or age in isolation. Grounded in Self-Categorization Theory (Turner, 1985), Social Identity Theory (Tajfel, 1981) and Similarity-Attraction Paradigm (Byrne, 1971), group diversity faultlines are defined as hypothetical dividing lines that split a team into two or more relatively homogeneous subgroups based on the alignment of one or more individual attributes (adapted from Lau & Murnighan, 1998). Underlying the concept of group faultlines is the implicit assumption that the compositional dynamics of multiple attributes has a greater impact on behavior than one attribute alone (Bezrukova, Jehn, Zanutto, & Thatcher, 2009; Lau & Murnighan, 1998; Thatcher et al., 2003). Recognizing this might be hard to visualize, Lau and Murnighan (1998) described group faultlines as somewhat analogous to geological faultlines where there are faults (or fractures) deep in the earth's crust that may remain dormant for many years without being observed at the surface. Earthquakes happen as a result of layers of crust suddenly and violently moving along a fault. They argue that the earth's multiple geological layers echo the notion that individuals have multiple identities (Kramer, 1993; Merton, 1972) and when team members have multiple attributes (visible proxies representing identities) or layers that become aligned, they reinforce one another and elevate the chances the team may fracture into competing subgroups within the larger team (Jehn, Bezrukova, & Thatcher, 2008). Examining the distribution of a single demographic attribute within a group or a single layer within the earth's surface can make it near impossible to detect the important interplay of different attributes (i.e., identities)

or different layers; in geological terms, it can lead to the failure to predict when and where earthquakes may occur. In diversity faultline terms, Lau and Murnighan (1998) argue that when strong faultline subgroups develop they create separate subgroup identities that are distinct from the larger team and associated with different attitudinal and behavioral outcomes (Deaux, Reid, Mizrahi, & Ethier, 1995). Early research suggests this can lead to increased performance failures for the team overall and negative individual-level impacts.

Below is a simple illustration of the faultline concept adapted from Thatcher and Patel (2011): There are two teams - Team A has six people, three men who have high school diplomas and three women who have doctorates, and Team B, also with six people, two men and one woman with high school diplomas and one man and two women with doctorates. From a demographic diversity perspective, Teams A and B are identical, as the dispersion of sex and education level in each team is exactly the same. From a demographic faultline perspective, these teams differ, because the demographic attributes in Team A are aligned (the men have high school diplomas and the women doctorates) while the demographic attributes in Team B are not aligned. Faultline Theory (Lau & Murnighan, 1998) suggests faultlines can be of varying strengths but teams with diversity attributes (such as age, race, tenure, education, etc.) that cut across the team (i.e., low correlation of diversity attributes) will outperform homogeneous groups (i.e., limited amount of diversity) and groups with strong faultlines (i.e., high correlation among diversity attributes). In the example above, Team A has a strong demographic faultline because both subgroups (females with doctorates and males with high school

diplomas) are homogeneous. Faultline Theory would hypothesize that Team A would overall perform worse than Team B (Lau & Murnighan, 1998).

Early research offers some encouraging empirical support for the propositions outlined in Faultline Theory (Lau & Murnighan, 1998). Specifically, faultlines may explain variance in team outcomes beyond those found by examining team diversity alone. This lends credibility to theoretical speculation that the structural alignment of multiple diversity attributes is an important property of teams and worthy of heightened attention (e.g., Lau & Murnighan, 1998; Thatcher & Patel, 2012). Beyond just team performance, faultline strength has been empirically linked to a number of other team processes and outcomes such as conflict, trust, and communication, satisfaction, decision making, creativity, and team learning (e.g., Li & Hambrick, 2005; Polzer, Crisp, Jarvenpaa, & Kim, 2006). But as to be expected in any emerging area, researchers have largely approached diversity faultline exploration using broad strokes resulting in the preliminary overarching conclusions that the 'stronger the demographic faultline, the lower the team performance' (Thatcher & Patel, 2011) and that faultlines are a relatively negative phenomenon (Thatcher & Patel, 2011, 2012). However, before we use these broad conclusions as definite evidence and start instructing organizations to evaluate team diversity faultlines, we must first recognize and address a few blind spots in our current understanding of faultlines. From a theoretical standpoint, work is just beginning to consider the relationship between diversity faultlines and individual-level outcomes (Kunze & Bruch, 2010), one place this study plans to contribute. Responding to calls for a multi-level approach (e.g., Harrison & Klein, 2007; Jackson, Joshi, & Erhardt, 2003; Kunze & Bruch, 2010; Tsui & Gutek, 1999), our primary focus is on introducing a new

outcome to the faultline literature while expanding the understanding of faultlines to consider the relationship between group faultlines and an individual-level outcome that is considered one of the most important issues encountered by organizations - employee engagement (Wah, 1999). We consider the implications of faultlines for the engagement of each individual in a specific group rather than solely considering team level outcomes.

Theoretically, we argue the next important evolution in the faultline literature is transitioning from almost exclusive focus on understanding overall group faultline strength to examining the effects of different types of faultline strength (Chung, Liao, Jackson, Subramony, Colakoglu, & Jiang, 2015). The diversity dimensions prioritized in previous faultline studies remain relatively limited to a core set of demographic diversity dimensions (e.g., age, race, gender, tenure) and often make little differentiation between different types of demographic attributes (e.g., socio-demographic, knowledge-based) or teams with differing structural characteristics (e.g., co-located or virtual). Consistent with Williams and O'Reilly (1998), we argue that considering the effects of different faultline types simultaneously allows us to start unraveling the salience of different attribute combinations used for faultline calculation. Within the context of employee engagement, we know little to none about its differential relationship with socio-demographic, knowledge-related or geo-proximal (location-based) faultline strength. Do faultlines based on demographic attributes such as organizational tenure and organizational level (i.e., knowledge-based faultlines) have the same pattern of relationships as faultlines driven by more deeply socially engrained attributes such as gender, age and race (i.e., socio-demographic faultlines)? Are factors outside of individual demographic dimensions such as team location (e.g., co-located or virtual) salient in the creation and activation of

faultlines? Studies with faultline strength indices that include only socio-demographic or knowledge-related attributes assume that individuals in teams form subgroups considering either socio-demographic or knowledge-related attributes in isolation, rather than remaining consistent with the fundamental premise of the faultline approach that multiple (salient) attributes need to be considered simultaneously (Lau & Murnighan, 1998). Our study sheds new light on the varied consequences of different types of faultlines, while recognizing the complexity and multitude of social cues available to members of a team. Thus, applying the theory of diversity faultlines, we explore the interaction of different types of diversity as a way to improve our understanding of whether or not all faultlines are created equal (Chung et al., 2015).

Beyond the consideration of multiple faultline types, the mixed findings regarding the relationship of diversity faultlines on key team outcomes suggests potential contextual or moderator variables may be at play and warrant further exploration (Thatcher & Patel, 2011). The role of context is well established in the broader diversity literature (Joshi & Roh, 2009), and was noted in Lau and Murnighan's original theoretical article (1998) on diversity faultlines as potentially important to understanding faultline functioning. However, empirical investigation of contextual factors that trigger faultline activation is still in the early stages (see Thatcher & Patel, 2012 for a review). Thus, we prioritize inclusion of a pertinent organizational contextual factor which we believe could mitigate the negative consequences of socio-demographic faultlines while enabling teams to reap the benefits of knowledge-based faultlines. This study focuses on the moderator of employee perceptions of the organizations' Human Resource Management (HRM) practices. There are many situational factors outside an organization's control, we

intentionally selected this moderator as we believe it to be within an organizations control to influence in hope of this study contributing actionable insights for leaders. Organizations invest significant financial resources and energy into the creation and management of systematic HRM practices (sometimes referred to as high-involvement, high-performance or high-commitment HR practices). When companies can effectively bundle these HR practices some of the assumed effects are enhanced employee knowledge, skills, and motivation resulting in higher performing employees and improved overall company performance (Den Hartog, Boon, Verburg, & Croon, 2013). Using the Society of Human Resource Management (SHRM) research method of taking a systems approach to study the impact of bundles of HR practices (vs. focus on single or isolated HR practice), we are the first known faultline study to examine the relationship between employee perceptions of organizational HRM practices and diversity faultlines. Our intent is to understand how employee perceptions of the larger organizational HRM practices may change the nature of the relationship between different types of diversity faultlines encountered within a team and the individual's level of engagement.

Despite the progress made in recent years, there is still much to learn about faultlines. Thus the proposed study comes at an appropriate time in the Faultline Theory (Lau & Murnighan, 1998) journey and contributes to the diversity, faultline, employee engagement and small team literature by aiding both researchers and practitioners in starting to disentangle the relationship of diversity faultlines on employee engagement. The intent is that a more focused approach to examining the "what" and the "when" regarding group faultlines may supply organizations with more actionable ways to proactively identify and manage potential negative effects caused by faultlines while still

garnering positive outcomes resulting from increased diversity in teams. In the following sections, we first concentrate on this study's theoretical contributions to the faultline literature by introducing employee engagement and examining how different types of faultlines may display differential relationships to individual-level employee engagement. Next, we explore the moderating relationship between faultlines, employee engagement, and the contextual factor of employee perceptions of the organization's HRM practices. By considering employee engagement and the role of the organizational context we expect to better understand when and where faultlines may affect individual's attitudes and some potential avenues for organizations seeking to effectively manage diversity faultlines.

Review of the Literature

Diversity Faultlines

One of the most compelling insights in faultline research thus far is that diversity faultlines affect team processes (e.g., cohesion, conflict, trust, communication, creativity, group learning, decision making, information sharing/elaboration), affective outcomes (e.g., group satisfaction, morale), performance outcomes (e.g., decision accuracy, group performance, group organizational citizenship behaviors) with the most commonly studied outcomes being group performance, group satisfaction, and intragroup conflict (e.g., Barkema & Shvyrkov, 2007; Bezrukova, Thatcher, & Jehn, 2007; Choi & Sy, 2010; Gibson & Vermeulen, 2003; Homan, van Knippenberg, Van Kleef, & De Dreu, 2007; Jehn & Bezrukova, 2010; Jehn & Rupert, 2008; Lau & Murnighan, 1998; Li & Hambrick, 2005; Meyer, Shemla, & Schermuly, 2011; Molleman, 2005; Pearsall, Ellis, &

Evans, 2008; Polzer et al., 2006; Rico, Molleman, Sánchez Manzanares, & Van der Vegt, 2007; Sawyer, Houlette, & Yeagley, 2006; Thatcher, Jehn, & Zanutto, 2003). Consistent with the premises of Faultline Theory (Lau & Murnighan, 1998), Thatcher & Patel (2012) empirically demonstrated via meta-analysis that teams with strong faultlines seem to experience higher levels of conflict (task/relationship) and distrust and lower levels of team cohesion that result in overall lower levels of team satisfaction and performance (e.g., Bezrukova et al., 2007; Li & Hambrick, 2005; Polzer, et al., 2006). Ultimately, Thatcher & Patel (2012) concluded that faultlines explain more variance than diversity measures alone on group processes (task conflict, process conflict, relationship conflict) and group outcomes (performance, satisfaction). While these findings are promising, a lot of questions regarding the impact of faultlines remain.

In their original work, Lau and Murnighan (1998) focused on the relationship of diversity faultlines to group outcomes so it should serve as no surprise that the vast majority of empirical and conceptual research following has continued this focus to understand the faultline effect on group level processes, attitudes and outcomes (Harrison & Klein, 2007; Jackson et al., 2003; Joshi & Roh, 2009; Milliken & Martins, 1996; van Knippenberg & Schippers, 2007; Williams & O'Reilly, 1998). It also makes sense methodologically as it is much more straight-forward to examine the relationship of a group level predictor (e.g., diversity faultline strength) on an outcome variable measured at the same level (e.g., group performance, group satisfaction, group cohesion). With clear indications that faultlines impact team functioning, we argue it is appropriate to now turn some attention toward the unanswered questions regarding the importance of faultlines on a wider array of outcomes and whether there is a relationship at the

individual-level. Investigation of how faultlines may influence individual-level perceptions has repeatedly been cited as a potential direction for future research, yet we as a field have only initially embarked on this investigation (Bezrukova, Spell & Perry, 2010; Thatcher & Patel, 2012). Serving as one of the main contributions of this study, we thus answer this call by bring together the diversity and engagement literatures to examine the previously unexplored outcome of employee engagement in the faultline literature while also shifting the attention toward understanding the relationship of diversity faultlines on a key individual-level attitude.

Employee Engagement

The construct of employee engagement has generated enthusiastic interest from organizational practitioners, business leaders and scholars for more than a decade now. While debate continues regarding the exact definition of employee engagement, the popularity has not waned likely due to the repeatedly established empirical (and intuitive) links to positive individual, team and organization outcomes (e.g., higher job performance ratings, increased in-role performance, organizational citizenship behaviors, personal initiative, higher likelihood of promotion, decreased absenteeism and tardiness, lower turnover and turnover intention, decreases in work-related health complaints, workaholism, employee innovativeness; more positive job attitudes; Church & Waclawski, 2010; Gonzalez-Roma, Schaufeli, Bakker, & Lloret, 2006; Harter, Schmidt, & Hayes, 2002; Macey & Schneider, 2008; Rich, LePine, & Crawford, 2010; Schaufeli, Taris, & Bakker, 2006; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009). Defined as the degree to which individuals invest physical, cognitive, and emotional energies toward their work role and organizational success (Kahn, 1990), engaged employees are

thought to be cognitively and emotionally present, committed, enthusiastic, integrated, and focused on superior role performance (Britt, 2003; Kahn, 1990; Harter & Schmidt, 2008). Engaged employees are described as having a deep and broad connection with the company that results in the willingness to go above and beyond what is expected to help the team and company succeed (Gebauer & Lowman, 2009).

In recent years, numerous studies have examined the engagement construct and repeatedly found it to exhibit discriminant validity from, and criterion related validity over, attitudes such as job satisfaction, organizational commitment, and job involvement dispelling some questions regarding if employee engagement is just putting "old wine in a new barrel" (Christian, Garza, & Slaughter, 2011; Halbesleben & Wheeler, 2008; Hallberg & Schaufeli, 2006; Schaufeli, et al., 2006; Schaufeli, Taris, & van Rhenen, 2008). With significant evidence of a high correlation but empirical distinction between engagement and relevant work-related measures, engagement is thought to best characterized as a higher-order or umbrella construct (Avery, McKay, & Wilson, 2007; Cooper-Hakim & Viswesvaran, 2005; Harter and Schmidt, 2008; Morrow, 1993; Newman & Harrison, 2008; Macey & Schnedier, 2008; Nohria, Groysberg, & Lee, 2008). Consistent with previous work, we too conceptualize and measure employee engagement as a broader construct composed of aspects of commitment and discretionary effort (Korn Ferry/Hay Group Insight Research Engagement Model: affective commitment, continuance commitment and discretionary effort). Respectively, these areas capture the extent to which employees feel a sense of pride and speak positively about the organization to coworkers, potential employees, friends, and customers; whether they have an intense desire to remain a part of the organization; and if they feel

motivated to invest extra effort and engage in behaviors that contribute to organizational success. Because of a strong positive empirical link between employee engagement and many of the very same outcomes (e.g., performance, satisfaction, organizational citizenship behaviors, creativity) shown to be negatively influenced by faultlines we expect engagement may be a suitable individual-level construct with which to capture the effects of team diversity because we assume it to be affected by similar processes that occur in teams with faultlines.

However, examining the relationship between overall faultline strength and employee engagement falls short in our intent to provide actionable insights to researchers and organizations. Consequently, to further contribute, in this study we prioritize conceptualizing and examining the influence of different types of diversity faultline strength (gender, age, race, geo-proximity, organizational tenure, and organization level) and evaluating the differential effect of multiple faultlines within work teams. Less than 5% of diversity studies have addressed the question of whether the effects of one diversity dimension depend on the presence or absence of other dimensions (Jackson et al., 2003). But a core premise of Faultline Theory (Lau & Murnighan, 1998) is that the effect of faultlines depend on their strength, with strength defined by the number of individual diversity attributes salient to group members, the alignment of the attributes, and the number of homogeneous subgroups created. Faultlines vary in strength and are strongest when multiple salient diversity attributes are highly correlated creating homogeneous subgroups but empirically this has not been explored enough to conclusively claim that the number of aligned attributes (e.g., alignment on one vs. two vs. three attributes) has a differential impact on team and individual processes and

outcomes (Thatcher & Patel, 2012). Thus a core focus here is to empirically explore thus consequently better understand this core faultline proposition.

Different Faultline Types

Consistent with previous research, we intentionally make a distinction in this study between *social category diversity* (termed socio-demographic diversity: differences in readily detectable attributes such as gender, race and age), *information-based diversity* (termed knowledge-based diversity: differences in less visible underlying attributes that are more job-related, such as organizational level and tenure) and *context-based diversity* (termed geo-proximal diversity: considered in this study to reflect differences driven by team member geographical proximity) thus opening the door to the possibility that different types of diversity (socio-demographic, knowledge-based, geo-proximal) attributes and their alignment might influence the nature of the faultline relationship as positive or negative to individual-level employee engagement (e.g., Cummings, Zhou, & Oldham, 1993; Jackson, 1992; Jackson et al. 2003; Jehn, Northcraft, & Neale, 1999; van Knippenberg, De Dreu, & Homan, 2004; Milliken & Martins, 1996; Tsui, Egan, & O'Reilly, 1992). This approach of clustering attributes as socio-demographic or knowledge-based acts as a proxy to articulate important psychological differences underlying individual diversity dimensions. Researchers argue that distinguishing between different types of faultlines may aid in our understanding of the nature of faultline subgroups and their potential differential relationships to group outcomes. For example, Bezrukova, Jehn, Zanutto, and Thatcher (2009) found that social category faultline strength was negatively associated with group performance, consistent with Faultline Theory, but they didn't find significant evidence that information-based

faultlines were negatively associated with group performance. Given its early stage, the literature provides no consistent conclusions as to whether the consequences of faultlines differ depending on the combination of attributes used to calculate faultlines. However, studies like Bezrukova et al., (2009) provide some signals that faultline attribute types may display differential relationships to key outcomes and there is incremental value to be had by examining different types of attribute alignments within a single study.

Theoretical Framework and Hypotheses

Socio-Demographic Faultlines & Employee Engagement

The theoretical mechanisms to explain the formation of faultlines was initially conceptualized by Lau and Murnighan (1998) using the Self-Categorization Theory (Turner, 1985), Social Identity Theory (Tajfel, 1978), and the Similarity-Attraction Paradigm (Byrne, 1971); all of which have been used extensively in diversity research (Thatcher & Patel, 2012). The premise of Self-Categorization Theory (Turner, 1985) is that individuals classify themselves and others into categories on the basis of similarities and differences in salient attributes, distinguishing between similar ingroup members and dissimilar outgroup members. Classification occurs as a way of simplifying a complex environment so that predictions might be made about future interactions while also serving as a significant source in the development of an individual's social identity (e.g., I see myself as an Asian female senior manager, and this identity has meaning for me; Hogg, 2006; Linnehan, Chrobot-Mason, & Konrad, 2006; Tajfel, 1978; Turner, 1982). The perception of membership in a particular group is an emotionally significant contributor of one's self-concept. Individuals are likely to seek out and align with similar

others resulting in subgroup formation, with feelings of ingroup as superior to out-group and favoritism toward people in the same social identity group and discrimination against people in a different social identity group(s) (Brewer, 1995). This can lead to an 'us-versus-them' mentality and decreases in overall morale, trust, satisfaction and performance within a team (Jehn & Bezrukova, 2010; Murnighan, 1978; Rico et al., 2007).

These three theories together (Self-Categorization, Social Identity, and the Similarity-Attraction Paradigm) are thought to play as especially important explanatory function regarding why visible demographic differences especially matter in a team and how strong socio-demographic faultlines come to negatively influence key team outcomes. In regards to employee engagement, perceptions of trust and fairness are believed to be key to creating and sustaining high levels of employee engagement (Macey, Schneider, Barbera, & Young, 2009). Through the activation of social categorization processes, ingroup favoritism may lead individuals in each identity-based subgroup to feel they are unfairly treated or discriminated against by other identity-based subgroups (Ashforth & Mael, 1989; Brown, 2000). Consistent with substantiations in past research, socio-demographic attributes seem to serve as easily visible and highly salient means for determining similarity and identification thus stimulating social categorization processes and the development of identity-based subgroups resulting in a decreased ability of the group to meet members' needs (Carton & Cummings, 2012; Harrison, Price, & Bell, 1998; Horwitz & Horwitz, 2007; Jiang, Jackson, Shaw, & Chung, 2012; Tsui et al., 1992; Williams & O'Reilly, 1998). As a result, individuals in teams with strong socio-demographic based faultlines may experience more conflict and hostility resulting in

lower motivation and the withdrawal of effort (Bezrukova et al., 2009). On the contrary, when socio-demographic attributes in subgroups are not aligned (e.g., a female subgroup with mixed generations and a male subgroup with mixed generations), individuals' perceived inclusion in, or dependence on, particular subgroups will be weaker as subgroup identities are submerged (Crisp & Hewstone, 2007; Turner, Oakes, Haslam, & McGarty, 1994). Hence, the likelihood of coalitions may be greater when multiple attributes are aligned (i.e., higher faultline strength) than when there are cross-cutting attribute subgroups (i.e., lower faultline strength) as the latter may reduce the salience of socio-demographic identity-based subgroups (Cramton & Hinds 2005; Crisp & Hewstone, 2007; Polzer et al., 2006).

Pulling from Kahn's (1990) work on engagement, he specified that one of the psychological conditions deemed necessary for personal engagement is feelings of psychological safety, which includes interpersonal relations, as well as, group and intergroup dynamics (Christian et al., 2011). Increased team conflict and decreased team cohesion (i.e., extent to which employees identify with the team) found in previous faultline research for teams with strong socio-demographic faultlines may lead members of the team to feel less psychologically safe thus experience weaker attachment, less identification, and feel less willingness to authentically engage with the team and the organization (Chattopadhyay, 1999; Lavelle, J. J., Brockner, J., Konovsky, M. A., Price, K. H., Henley, A. B., Taneja., V. V., 2009; Lau & Murnighan, 1998; Molleman, 2005; Van der Vegt & Janssen, 2003). Furthermore, in line with Social Categorization Theory (Turner, 1985), strong diversity faultlines facilitate team fragmentation and limit both the opportunities for information exchanges and the motivation to share relevant and

important information across team members (Lau & Murnighan, 1998; Phillips, Mannix, & Neale, 2004; Sawyer et al., 2006). Team members of different socio-demographic faultline-based subgroups do not feel like a part of a larger team and consequently are not motivated to expend extra effort to share information and support the whole team to reach its full potential. With team fragmentation, team members experience less desire to invest their personal resources, exert extra effort and engage in behaviors that contribute to increased organization success (i.e., lower engagement). On the contrary, members of teams with weak socio-demographic faultlines are less likely to form identity-based subgroups, and thus experience less conflict and are more likely to perceive their team as a collective entity (Van der Vegt & Janssen, 2003). This provides a sense of involvement, a broader connection and a supportive internal network within the team that encourages team members to invest their physical, cognitive, and emotional energies toward their work responsibilities and greater team success (Kahn, 1990; Macey et al., 2009; Mone & London, 2009).

As a side note, we intentionally include age as an attribute of interest in this study as previous empirical work suggests it may serve as a relevant and significant attribute in faultline development. However, there has been surprisingly little discussion about the role of age operationalized as 'generations' in relation to diversity faultlines, particularly in light of many proposing the importance of attribute salience in the activation of social categorization processes (Kunze & Bruch, 2010). Based on the social categorization perspective that social salience of an attribute may be a necessary precursor to faultline formation, our fourth contribution is through the operationalizing and exploration of age as "generation" (e.g., Baby Boomers, Generation X, Millennial) rather than age as a non-

theoretically derived set of ranges from a survey (e.g., less than 25; 25-35; 36-45; 46-55) or as a continuous scale. While we acknowledge that researchers often avoid artificially categorizing scales, in this case, we believe that it theoretically makes sense based on the prevalence through which generational differences are discussed in the media and organizations thus becoming a socially constructed attribute that is highly salient in individual identity formation and a potential dividing line splitting a team into subgroups. To our knowledge, generation as a socially constructed proxy for age has not been explored in faultline research but we believe it has the potential to lead to better understanding of the consequences of increasing generational diversity in teams and organizations.

Therefore, extending this logic, we propose:

H1: Socio-demographic faultline strength ((a.) gender, (b.) generational age, (c.) race) in work teams is negatively related to employee engagement.

Geo-Proximal Faultline & Employee Engagement

While a majority of faultline research to date has focused on unraveling the relationship of socio-demographic attributes, a core contribution of this study coming from seeking to complement and extend previous work by conceptually expanding the dimensions of diversity pertinent in faultline formation and provide empirical support for the disruptive consequences of team geo-proximal-based (i.e., geographic location) faultlines. Consistent with Williams and O'Reilly's (1998) definition of diversity, we propose that employees use geographic location as a visible and salient diversity attribute facilitating faultline formation. Unlike socio-demographic attributes that are visibly tied

to an individual, we propose that team members may also use differences in physical context such as geographic location, as a basis for self-categorization processes (Cramton & Hinds, 2005; Espinosa, Cummings, Wilson & Pearce, 2003; Griffith & Neale, 2001; Polzer et al., 2006). However, we recognize this team attribute to only be salient for teams that are not fully co-located. There is some empirical support for this idea that a feature of the physical and organizational context in which a team works may be salient enough to facilitate faultline formation. Using graduate students, Polzer, et al. (2006) found that geographic faultlines heightened conflict and reduced trust within the assigned teams. Related, Li and Hambrick (2005) found the structural attribute of parent company affiliation in joint ventures to serve as a significant and salient source for faultline activation.

The reality is that organizations are striving to quickly adjust to changing market demands, labor force skill gaps and competitive pressures through increasing use of strategies such as opening satellite offices away from the headquarters, building separate research and engineering facilities, targeting manufacturing hubs to optimize their supply chain footprint and acquiring different companies to complement their business portfolios. With these strategic business decisions, an intended (or potentially unintended) consequence is increased geographic dispersion of the organization's work teams across multiple locations (Hinds & Kiesler, 2002). Termed geographically dispersed or virtual teams, these teams are defined as intact groups where members carry out interdependent tasks but are physically located across multiple locations and usually rely heavily on computer-mediated communication to complete their work (O'Leary & Cummings, 2007). Today, teams fall on a spectrum spanning from the more traditionally

studied team where all members are co-located at the same geographic location to the other extreme where team members are fully dispersed with each residing at a unique location (Griffith & Neale, 2001). An increasing number of teams are considered 'partially dispersed' due to their varied number of team members spanning multiple locations, often time resulting from the increasingly common strategy implemented by organizations seeking to remain competitive and gain access to the best talent available globally. The increased prominence of partially dispersed teams in organizations is intriguing to consider within the context of Lau and Murnighan's (1998) proposition that teams with moderate diversity (i.e., members similar within subgroups but different across subgroups) experience more problems than teams with maximum or minimal diversity on salient attributes. The reality is that subgroup formation based on geography isn't as likely in fully dispersed or co-located teams. However, when it comes to the fastest growing category of teams, partially dispersed teams, there is the most risk for faultline dynamics due to their moderate levels of diversity on this salient attribute – yet, we know little about the consequences of this type of diversity faultline (Earley & Mosakowski, 2000; Polzer et al., 2006). Thus the addition of this dimension of diversity to faultline research, stemming from the physical context that surrounds and separates team members, draws necessary attention to a likely source of faultline formation highly relevant within this increasingly prominent type of team.

Similar to the theoretical mechanisms thought to underlie the formation of socio-demographic faultlines (i.e., Self-Categorization Theory, Social Identity Theory, and Similarly-Attraction Paradigm), perceived geographical location similarity among team members is believed to be an immediately apparent and salient perceptual cue facilitating

subgroup formation (Fiske & Neuberg, 1990). In fact, previous research informs us that it is not uncommon for employees (and senior leadership) within an organization to routinely use geographical location as a basis for classifying people into groups (Kirkman, Rosen, Gibson, Tesluk, & McPherson, 2002). We often see various organizational sites within the same company governed by slightly different policies, procedures, and norms depending on local laws, regulations and the mix of the workforce staffed at that location. Team members in the same location recognize this easily observable boundary defined by geography as a meaningful social category which divides the larger team (and organization) into smaller subgroups. While Cramton (2001) did not set out to examine geographic subgroups, she found that when present, they quickly triggered ingroup/out-group dynamics that led to restricted inter-site information flow and, in turn, faulty attributions, reduced cohesion, and increased intragroup conflict. This finding is consistent with the propositions of Faultline Theory (1998) that the activation of faultlines is likely to depend on a team's task context. For example, affirmative-action topics may activate race-based faultlines, retirement and flexible work issues may activate age-based faultlines, and the potential presence of a glass ceiling may generate gender-related faultlines. Similarly, it should not be surprising that team geographic dispersion may trigger social categorization processes, dividing the larger team into geographically-based subgroups and activate geo-proximal based faultlines. We know that individuals categorize themselves and others on the basis of characteristics that are most distinctive and socially salient at a given moment (Hogg & Turner, 1987) and those characteristics that most differentiate them from others (Cohen & Swim 1995). Within fully co-located teams, geographic location should not serve as a salient, visible,

or meaningful diversity attribute. However, in geographically dispersed teams, geographic subgroups are highly salient and offer clear point of differentiation thus we propose that this single diversity attribute may be sufficient to trigger intragroup social categorization but this requires further empirical attention.

Now focusing specifically on partially dispersed teams, the co-located team members have increased opportunity for face-to-face communication away from the larger team (McGinn & Keros, 2002), more informal interactions and the ability to exchange information given their close physical proximity but less opportunity to interact as a larger team (Olson & Olson, 2000). Viewed through the lens of Faultline Theory, Lau and Murnighan (1998) believe that these organizational conditions should strengthen the cohesiveness of subgroups resulting in members attributing ingroup status, positive biases and favoritism toward those at the same location and out-group status to those at other locations (Brewer & Brown, 1998). With this fragmentation of the larger team into subgroups and associated impairment to team functioning (O'Leary & Mortenson, 2010; Polzer et al., 2015), we anticipate that just like with socio-demographic faultlines, there will be a negative impact to individual employee engagement levels. Geographically based subgroups were found to trigger significantly weaker identification with the team, less effective transactive memory, more conflict and more coordination problems (O'Leary & Mortenson, 2010). Fragmentation into subgroups limits the opportunities and motivation for team members to exchange relevant and important information to support the team to reach its full potential (Phillips et al., 2004; Sawyer et al., 2006). This subgroup identification is especially intense under conditions when a geographic faultline

results in two competing subgroups (i.e., team members across two locations) that "can foment diametric opposition to one another" (Lau & Murnighan, 1998: 331).

For faultline research to be relevant to practitioners, we must begin to understand if faultlines comprised of different diversity attribute types are universally relevant in all types of teams or if there is a differential effect of faultlines in teams with certain contextual characteristics such as geographic dispersion. By treating all work teams identical on this diversity attribute created through the physical environment in previous faultline research, we have potentially missed out on critical insights regarding how faultlines function. While primarily lab-based and quasi-experiential setting with temporary student teams research is available, their findings allude that members operating within strong geographical faultlines teams may display lower identification with the team, increased conflict, lower trust, less coordination, and restricted information flow providing compelling argument for our extension of the faultline model to geographically dispersed teams within a field study context (i.e., intact teams in the 'wild'). This study aims to provide compelling evidence to the consideration of the team geographical structure as a key consideration in all future faultline research. Just like with socio-demographic based faultlines, we expect that team members with strong geo-proximal faultlines will not maintain the necessary level of psychological safety and psychological availability needed to feel high levels of individual-level engagement (Kahn, 1990).

H2: Geo-Proximal (location-based) faultline strength in work teams is negatively related to employee engagement

Knowledge-Based Faultlines & Employee Engagement

Socio-demographic and geo-proximal based faultlines are proposed to operate via self-categorization, social identity, and the similarity-attraction paradigm arriving at a similar conclusion that people prefer to work with similar others and together forming the basis of the more pessimistic view of diversity (Byrne, 1971; Jackson, 1992; Mannix & Neale, 2005; Tajfel, 1978; Turner, 1985; Williams & O'Reilly, 1998). However, a relevant (but opposing) theoretical perspective highly leveraged in the greater diversity research literature is the information/decision-making perspective (Gruenfeld, Mannix, Williams, & Neale, 1996), which suggests that increased informational diversity promotes team learning resulting in more positive team outcomes (Gibson & Vermeulen, 2003; Van Knippenberg et al., 2004). Specifically, this perspective argues team outcomes improve as a result of access to a larger resource pool of task-relevant information as team members bring different backgrounds, networks, information, skills and cognitive schemas (Carton & Cummings, 2012; Mannix & Neale, 2005; Webber and Donahue 2001; Williams and O'Reilly 1998). This perspective is often leveraged by organizations as part of the 'business case' for the strategic importance of increasing diversity. Few faultline studies have considered or incorporated the information/decision making perspective and even fewer consider both opposing theoretical diversity perspectives (Gruenfeld et al., 1996).

Those embracing the information / decision-making perspective claim diversity faultlines grounded in knowledge-related attributes (i.e., organizational tenure, education background, functional background) promote flexibility of group members' thoughts, increased team learning and improved team performance through integrating of

alternative perspectives (Bezrukova et al., 2009; Carton & Cummings, 2012; De Dreu & West 2001; Gruenfeld et al. 1996; Gibson & Vermeulen, 2003; Homan et al., 2007). This less pessimistic view of diversity and team faultlines makes it an interesting avenue in light of the major focus by organization to increase overall diversity it their workforce as a competitive advantage. Whereas socio-demographic faultlines, which consist of highly visible attributes, are thought to be highly influenced by social identity processes that invoke social categorization and set in motion mechanisms such as stereotyping and outgroup discrimination (Fisk & Neuberg, 1990); the information / decision-making perspective suggests that task or knowledge-based faultlines, often less immediately visible than socio-demographic or geo-proximal attributes, have a direct relevance to work so may instead be driven by informational processes. Specifically, team members may view diversity in knowledge-related or informational attributes as offering greater cognitive resources to the team than do other (more visible) types of diversity allowing members to draw on these differences when tackling difficult job-related tasks and serving as a valued source of innovation and creativity (Tziner & Eden 1985; Wiersema & Bantel, 1992). Contrary to socio-demographic or geo-proximal based faultlines, some suggest that knowledge-based faultlines trigger the formation of subgroups viewed by team members as "healthy divides" that stimulate more fruitful problem-solving outcomes and foster learning (Bezrukova et al., 2009; Cramton & Hinds, 2005, Gibson & Vermeulen, 2003). Even if members in a particular subgroup feel different from members in another knowledge-based subgroups, it may be that they expect these difference along informational lines thus adopt an attitude of mutual positive distinctiveness (e.g., "We are different and that is ok"). They may even anticipate sharing their unique knowledge and

receiving task-related support from other subgroups (Cramton & Hinds, 2005; Gibson & Vermeulen, 2003; Nemeth & Goncalo, 2005). This anticipated sharing of each subgroup's unique resources so the team's common goal is achieved leads to valuing other knowledge-based subgroup members rather than viewing them as socially detached identity groups that they feel resistance or competition toward (i.e., "outgroup"; Chung & Jackson, 2013; Jackson et al. 2003; Jehn et al. 1999; Pelled, 1996). A strong knowledge-based faultline context could even result in a more learning-oriented environment where team members recognize the opportunities available to them to grow their capabilities from those in other subgroups while also providing a clear indicator regarding how each team member can uniquely contribute to something larger than themselves (i.e., the team success). Members in different knowledge-based subgroups feel an increased attachment to the organization and willingness to invest personal energies toward performance on task problems, motivation to freely share their technical expertise, and more commitment to exert extra effort to collaborate across team faultline subgroups (Cramton & Hinds, 2005; Gibson & Vermuelen, 2003). Contrary to many faultline studies focused on explaining faultlines are a negative phenomenon, we hypothesize that not all faultlines are created equal. In fact, we hypothesize that higher employee engagement occurs as a result of stronger knowledge-based faultlines as this task-relevant diversity increases team members access to develop their own capabilities while at the same time highlighting their ability to contribute more of themselves in a meaningful way at work. Stronger knowledge-based faultlines team members have higher engagement due to their cognitive and emotional attachment and motivation to invest personal energies. They

have a willingness to exert extra effort toward organizational success and experience a strong desire to remain a part of the organization.

H3: Knowledge-based faultline strength ((a.) organizational tenure and (b.) organizational role level) in work teams is positively related to employee engagement.

H4: The effects of socio-demographic faultline strength on employee engagement is stronger in magnitude than those of geo-proximal and knowledge-based faultline strength.

The Moderating Impact of Organizational Context

As judiciously pointed out by Thatcher and Patel (2012), the context of the team and the context that surrounds a team may affect the extent and nature to which a faultline is related to key outcomes. However, the body of research investigating moderators of the faultline relationship is not large nor diverse enough and is yet to adequately consider the role of organizational context (Meyer, Schermuly, & Kauffeld, 2015; Thatcher & Patel, 2012). Faultline researchers have tended to focus on a small subset of moderators (e.g., cognitive integration, openness to experience and saliency of intergroup differences, pro-diversity beliefs, task interdependence, and team identification; Cronin, Bezrukova, Weingart, & Tinsley, 2010; Homan, Hollenbeck, Humphrey, Van Knippenberg, Ilgen, & Van Kleef, 2008; Homan et al., 2007; Molleman 2005; Rico et al., 2007; Bezrukova et al., 2009; Jehn & Bezrukova, 2010) leaving our overall understanding of what organizational factors may exacerbate or mitigate the relationship between faultlines and outcomes far from complete. To start unraveling why

two teams with the same combination of diversity attributes can differ in the level of individual engagement and heeding calls from researchers like Williams and O'Reilly (1998), we consider in this study the practitioner-relevant contextual moderator of organizational Human Resource Management (HRM). The intent is that inclusion of this theoretically derived and practically relevant moderator within a single study which is also considering different types of faultlines will result in instrumental clues as to if certain combinations of diversity attributes may be more meaningful or relevant for teams functioning within specific organizational contexts.

Importance of Employee Perceptions of the Organization's Human Resource Management (HRM) Practices. The current study builds on the notion that organizations need systems of structures and processes that encourage employees to invest themselves in their jobs, and in return, organizations will be better positioned for enhanced performance (Kahn, 1990, 1992; Saks, 2006). In research and practice, these systems of structures and processes are often referred to as Human Resource Management (HRM) practices or bundles (also sometimes called high performance, high commitment or high involvement work systems). HRM bundles are defined as broad synergistic sets of HR practices aimed at attracting, developing and rewarding employees resulting in a "human capital advantage" and "human process advantage" for the organization (Appelbaum, Bailey, Berg, & Kalleberg, 2000; Boselie, Dietz, & Boon, 2005; Whitener, 2001). Organizations implement systematic HRM practices with the intent to generate a more motivated, satisfied, knowledgeable workforce and create opportunities for the workforce to more fully contribute to achieving the organization's strategic objectives (e.g., Kehoe & Wright, 2013; Delery, 1998, Wright & Snell, 1998).

Historically, studies on types of HRM practices have emphasized one of two main approaches: the resource-based perspective, which is focused on the role of employee development (training, careers) practices and the control-based view, focused on practices directing and monitoring employees (Snell, 1992). More recently, frameworks have emerged integrating both approaches as a vehicle to more adequately capture the broad nature of HRM practices beyond just a resource or control perspective. An example of one of these frameworks by Bamberger and Meshoulam (2000) suggests that are three main HR subsystems: (1) *people flow* which focuses on employee development and building the required skills, including staffing, employee mobility/promotion, and development/training, (2) *appraisal and reward* which focuses on encouraging employees to contribute to and stay with the organization through practices such as performance appraisal, compensation, and rewards/benefits, and (3) *employment relation* which has a broader focus on the nature of jobs thus includes areas such as job design and participation (e.g., Bamberger & Meshoulam, 2000; Den Hartog, et al., 2013). Subramony (2009) suggests a similar approach grouping HRM practices into empowerment-enhancing, motivation-enhancing, and skill-enhancing bundles. Based in the AMO model, these HRM bundles are proposed to represent the abilities (A – people flow/skill-enhancing), motivation (M- appraisal and reward/motivation-enhancing), and opportunity (O – employment relations/empowerment-enhancing) required to stimulate employees' skills, drive, and discretionary effort, ultimately leading to increased positive organization and individual level outcomes (Appelbaum, et al., 2000; Gardner, Wright, & Moynihan, 2011; Subramony, 2009). The value of systematic HRM practices is generally supported by years of research reporting more positive associations of these varying but

integrated HR bundles on outcomes (e.g., productivity, turnover, financial and service performance, commitment, and satisfaction) than the use of isolated HR practices alone (Batt, 2002; Den Hartog, et al., 2013; Guest, 1999; Guthrie, 2001; Huselid, 1995; MacDuffie, 1995; Verburg, Den Hartog, & Koopman, 2007).

Based on these positive individual and organizational-level findings, implementing systematic HRM practices is an attractive proposition to organizations. However, the reality is that a well-designed HR system on paper may not be sufficient to positively affect employee and organizational outcomes as the reality of what is intended and implemented often differs via employee perceptions of these HR practices (e.g., Boon, Belschak, Den Hartog, & Pijnenburg, 2014; Legge, 2005; Nishii & Wright, 2008). Nishii and Wright (2008) found that the perceptions of HRM practices and impact on employee attitudes and behaviors can vary significantly between individuals in the same organization as employees differ in terms of their beliefs, values, and experiences, which impacts their perceptions of the same organization's HRM practices. Said another way, people do not react to the actual or 'objective' HR practice but rather to their subjective perception of it (e.g., Den Hartog, Boon, Verburg, & Croon, 2013; Guest, 1999; Liao, Toya, Lepak, & Hong, 2009). In light of these findings, we intentionally focus in this study on the relationship between *individual perceptions* of HRM practices (i.e., how employees interpret this set of practices) and employee engagement rather than on the objective HRM practice. Addressing calls for increased understanding of individual-level effects of HRM practices (e.g., Kehoe & Wright, 2013; Snape & Redman, 2009; Wright & Boswell, 2002), we leverage data from a single organization in order to keep the objective (or paper policy) HR system constant thus making it possible to examine

variance in individual perceptions of the HRM system. This study is the first known to examine the relationship between employee perceptions of HRM practices, individual-level employee engagement and diversity faultlines.

HRM Practices & Employee Engagement. At their core, HRM practices target the development and management of employees in order to increase their investment and commitment to the organization's long-term success (Lepak & Snell, 1999). So organizations must make conscious choices regarding which practices are most important to their specific strategy and context then craft their HRM practices (or bundles) to enable their priorities. An often under considered consequence as organizations make these HRM choices is the messages that these systems communicate to employees about the organization (Bretz & Judge, 1994; Guzzo & Noonan, 1994). HRM practices have the potential to signal that the organization cares about its employees, and from a social exchange perspective (Blau, 1964), the perception of such care is likely to be reciprocated by employees showing positive behaviors 'in kind' toward the organization (Cole, Schaninger, & Harris, 2002; Morrison, 1996). Employees must continually decide what level of effort they will exert to benefit the organization and research suggests that positive behaviors from employees seem to be even more pronounced when HRM practices emphasize the development of a long-term relationship with employees (Arthur, 1994; McClean & Collins, 2011; Morrison, 1996; Snape & Redman, 2009). When perceived favorably, HRM practices stimulate involvement of employees, motivate them to contribute above and beyond their basic job requirements, and leave them feeling appreciated (McClean & Collins, 2011; Tsui, Pearce, Porter, & Tripoli, 1997). Essentially, positively perceiving these HR-related job resources and structures (e.g.,

rewards, participation, job control, and performance feedback) creates a sense of deeper and broader connection with the organization resulting in a desire to reciprocate by going above and beyond what is expected to help the team and company succeed (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). Based on this argument and in line with previous research (e.g. Bakker et al., 2007; Bakker, Hakanen,, Demerouti & Xanthopoulou, 2007; Mauno, Kinneunen, & Ruokolainen, 2007; Saks, 2006; Schaufeli and Bakker, 2004), we propose that employees with more positive perceptions of the organization's HRM practices are likely to be more highly engaged. On the other hand, lower perceptions of the organization's HRM practices are hypothesized to be related to lower levels of engagement as employees' needs are not met (i.e., AMO Model) so they are less willing or psychologically available to invest additional physical, cognitive, and emotional energies toward their work role and organizational success (Appelbaum et al., 2000).

H5: Employee perceptions of the organization's HRM practices are positively related to employee engagement.

Diversity Faultlines, HRM Practices & Employee Engagement. We hypothesize that socio-demographic and geo-proximal attributes may serve as easily visible and salient means for determining similarity, driving identify-based subgroup identification via social categorization processes resulting in decreased engagement as members' psychological needs may not be met (Carton & Cummings, 2012; Harrison, et al., 1998; Horwitz & Horwitz, 2007; Jiang et al., 2012; Tsui et al., 1992; Williams & O'Reilly, 1998). So in strong diversity faultline conditions, employees may look to the

organization's HRM practices as a valuable organizational-level resource to satisfy the three psychological needs, as identified by Kahn, necessary to feel engaged (Bakker et al., 2007; Kahn, 1990). More specifically, as referred to previously, Kahn (1990) described that employees need to feel psychological safety, or the feeling of comfort investing oneself into one's role "without fear of negative consequences to self-image, status or career," in order to feel engaged (Kahn, 1990: 708). Research suggests that an organization's HRM practices directly influence whether the work environment is perceived as safe enough by the employee to engage with their full self (Barrick, Thurgood, Smith, & Courtright, 2015). Within the context of HRM bundles, the employment relation bundle (e.g., job design, work-life balance, and teamwork and support) tends to especially send strong signals regarding if the organization cares about the employees' needs and well-being (MacDuffie, 1995; McClean & Collins, 2011). Consistent with the Organizational Support Theory (Rhoades & Eisenberger, 2002), when perceiving high levels of this HR employment relations bundle, employees are less likely to see the work situation as aversive, feel more appreciated, and experience a sense of belongingness. Beyond psychological safety, the second of Kahn's (1990) psychological conditions required for employee engagement relates to how 'psychologically available' or ready one is to engage one's whole self. Employees are more willing to invest their full selves into the role when they perceive adequate physical, emotional and psychological resources (Kahn, 1990). This condition is influenced heavily by the employee's perceived fit within the organization and confidence felt in his/her abilities at work (Rich et al., 2010). In strong faultline teams, we argue that HRM practices help members understand their role and what is expected of them in the larger

organizational sense, to see what is offered by the organization (e.g., policies, practices), and to understand reasons behind organizational decisions and enacted procedures even if not reflected in their immediate team reality. In addition, positive perceptions of the organization's HRM practices provide the necessary prompts to an employee that their interests are taken seriously (Gould-Williams, 2003; Guzzo & Noonan, 1994) and communicate the organizational intent to establish a trusting, meaningful, supportive relationship with the employee; thus positively influencing this required condition for engagement even if there are conflicting signals within the immediate environment for some strong faultline teams. Finally, Kahn's (1990) third engagement condition of meaningfulness is described as the feeling that the employee is receiving a return on the investment of their emotional, physical and cognitive energy in the form of feeling valuable, needed and that they are making a difference. Effective HRM systems and structures encourage interactions and the exchange of information between all members of a team. They help team members, regardless of subgroup, to feel more broadly connected thus less likely to perceive subgroups despite strong socio-demographic, geo-proximal or knowledge-based faultlines (Meeussen, Otten, & Phalet, 2014). More specifically, HRM practices such as development, feedback, and rewards are designed to amplify perceived meaningfulness thus may compensate when an employee may not be perceiving this need to be met through their immediate team environment (i.e., strong socio-demographic or geo-proximal faultline conditions), compelling the employee to remain engaged and still invest their physical, cognitive, and emotional energies toward their work and the organization overall (Gould-Williams, 2003; Lepak & Snell, 1999; Whitener, 2001). Thus, positive perceptions of the organization's HRM practices amplify

the extent to which employees perceive there to be sufficient psychological safety, availability, and meaningfulness positively relating to personal engagement. Empirically, this idea is indirectly examined through a recent meta-analysis. Christian, et al's (2011) isolated a number of contextual predictors of employee engagement (e.g., social support, performance feedback, autonomy, learning opportunities, task variety), many of which are positively influenced through strong HRM practices. They suggest that high levels of engagement emerge in such work contexts because they allow employees to fulfill basic needs of autonomy, relatedness, and competence (Deci & Ryan, 1985) and stimulate communication and connection between employees (Combs, Ketchen, Hall, & Liu, 2006). This echoes Gebauer and Lowman's (2009) framework for building engagement based on ''knowing, growing, inspiring, involving, and rewarding'' employees, all cornerstones of strong HRM systems. Lastly, this idea of the importance of HRM practices in strong faultline conditions as related to employee engagement draws support when examined through the lens of the Job Demands–Resources Model (Demerouti, Bakker, Nachreiner, & Schuafeli, 2001). Within this framework, we suggest that HRM practices serve as organizational-level job resources that promote engagement through a motivational process. Job resources refer to those aspects of the job that are functional in achieving work goals, stimulate personal growth and development, and reduce job demands and their associated physiological and psychological costs. They include aspects such as job control, opportunities for development, participation in decision making, task variety, feedback, and work social support (Bakker & Demerouti, 2007). Job resources are assumed to activate a motivational process whereby perceived resources that are instrumental in achieving work goals can also foster employees' growth, learning, and

development; satisfy needs for autonomy and competence; and increase willingness to dedicate one's efforts and abilities to the work task. These perceptions and beliefs increase the degree to which individuals are willing to invest their selves into their role performances.

Seeing organizational HRM practices as an organizational-level resource, employees with positive perceptions should report higher employee engagement, even within strong diversity faultline conditions. HRM practices may be able to maintain (or even enhance) employee engagement within the context of strong diversity faultline teams. Thus we propose that strong employee perceptions of the organization's HRM practices suppress some of the negative impact of strong socio-demographic and geo-proximal based faultlines on employee engagement and enhance the impact of strong knowledge-based faultlines due to HRM practices providing repetitive cues to the employee regarding their value and importance in the organization. Therefore, it is hypothesized that the relationship between the different diversity faultline types (socio-demographic, knowledge-based and geo-proximal) and employee engagement will be moderated by employee perceptions of the organization's HRM practices.

> H6a: The negative relationship between socio-demographic faultline strength and employee engagement is moderated by employee perceptions of the organization's HRM practices in such a way that the relationship is less strong when employees have strong perceptions of the HRM practices.
>
> H6b: The negative relationship between geo-proximal faultline strength and employee engagement is moderated by employee perceptions of the

organization's HRM practices in such a way that the relationship is less strong when employees have strong perceptions of the HRM practices.

H6c: The positive relationship between knowledge-based faultline strength and employee engagement is moderated by employee perceptions of the organization's HRM practices in such a way that the relationship is amplified when employees have strong perceptions of the HRM practices.

Summary

In summary, given that it is always advantageous to keep an eye toward applicability and relevance to organizational practice, our contribution to the literature comes from this study as a field validation of the faultline construct in a natural organizational team setting while also taking into account the effects of multiple faultlines simultaneously and the organizational context. Many faultline studies have been conducted in a lab setting, with temporary student project teams assigned for a short period of time, or with work groups selected based on clearly preexisting subgroups (Choi & Thomas, 2010; Thatcher & Patel, 2011; i.e., Homan, Van Knippenberg, Van Kleef, De Dreu & Carsten, 2007; Pearsall et al., 2008; Sawyer et al., 2006). But a recent meta-analysis found study settling (lab vs. field) to function as a significant moderator between diversity faultlines and team outcomes such that lab setting studies report stronger overall results than those studies conducted in field settings suggesting faultline findings from one study setting might not always be generalizable and the need to explore and replicate faultline findings across various settings (Thatcher & Patel, 2011). Lab and quasi-experimental setting add significant value toward furthering our understanding of the mechanisms underlying faultlines and unpacking the core tenants of Faultline Theory as depicted by Lau and Murnighan (1998). However, we seek to complement current

findings through contributing empirical evidence related to faultline functioning as gathered through examining intact teams in the 'wild' (Choi & Thomas, 2010; Lim & Klein, 2006; Van Knippenberg & Schippers, 2007).

With the increasing workforce diversity and prominence of different types of team structures, the aspiration to leverage diversity, effectively enable high-performing work teams and foster engaged employees is only becoming more complex for organizations (and managers). Empirical research on faultlines is still in the early stages with published findings not as straightforward or consistent as desired thus this study offers a systematic investigation of the relationship between different theoretically and practically-relevant diversity faultlines and employee engagement in intact work teams within the setting of a single organization. The general research question of this study is the following: "What influences do different types of diversity faultlines have on individual-level employee engagement, and how are these effects moderated by employee perceptions of an organization's HRM practices?" By answering this question, we offer valuable theoretical and empirical contributions to the faultline, team diversity, small group, and engagement literature.

CHAPTER 2

METHODS

Participants and Procedures

Data was collected in 2015 from employees working at a Fortune 100 global consumer goods company as part of the organizational culture survey, conducted every other year since 2005. The survey was administered to all employees by an external vendor hired by the company. Employees completed the survey online through the company's internal intranet. Participation was voluntary and participants were assured of confidentiality and anonymity. The total organization-wide survey response rate was 95% (n = 25,202), categorized as 'best in class' by the survey vendor. Although the organization is an international employer, the sample for this study was restricted to include only white collar teams where all members were based in the United States due to the inclusion of race as a variable of interest in diversity faultline creation. Corresponding to the standard in current team research to obtain valid measures of unit level constructs, we also excluded intact work teams with less than three members (Kunze & Bruch, 2010; Leslie, 2014). Removing respondents for these reasons yielded a final sample of 2849 employees in 418 intact teams distributed across 28 work sites (11 corporate locations and 17 remote locations) with the majority based at the largest United States corporate locations in Wisconsin, Georgia, Tennessee, and Texas.

To ensure consistency of measure definitions and employ a multi-source approach for data collection, demographic data was obtained from the organization's human capital

management system (Workday). More specifically, we leveraged this data collection approach to obtain employee gender, race, age, geographic location, organizational tenure, employee role level, and team membership information. Employee perceptions of the organization's Human Resource Management practices and employee engagement were collected via self-report items in the organizational culture survey described previously.

The study sample was 44.8% female and 55.2% male. Although the majority of respondents indicated they were White (87%), a number of other racial groups were adequately represented in the sample: Asian (4.1%), Black/African-American (4.2%), Hispanic or Latino (3.5%), and Multiracial (1.2%). These proportions compare as followed to the composition of the broader US population labor force as defined by the U.S. Bureau of Labor Statistics (79% White, 12% Black/African American, 6% Asian, 1% American Indian/Alaska Natives, less than 1% and Native Hawaiian/Other Pacific Islander. Note 16% of the labor force is Hispanic/Latino ethnicity but classified across the above listed racial category by BLS; U.S. Bureau of Labor Statistics Report 1057, November 2015).

Based on strong theoretical rationale and prominent use of generation as a socially salient category, age was operationalized and converted to generation for this study. Using birth year, we grouped each employee into one of the following generations: Silent (1925-1945), Baby Boomer (1946-1964), Generation X (1965-1979), Generation Y/Millennial (1980-1995), and Generation Z/Post-Millennial (1996-2010). Three different generations were represented in the study sample (28.1% Baby Boomer, 45.5% Generation X, and 26.4% Millennials). This closely mirrors 2015 data for the broader

U.S. labor force reflecting 29% Baby Boomer, 34% Generation X, 34% Generation Y/Millennials, 1% Generation Z/Post-Millennial and 2% Silent (U.S. Bureau of Labor Statistics, 2016).

Significant variance in organization tenure is represented in the study with the average of 13.65 years (SD = 10.39). Due to the nature of the dependent variable of employee engagement and proposed moderator of employee HRM perceptions, we excluded teams where all members had not been employed with the organization for at least three months. This approach was taken as employees need time to experience the organization's practices, policies and culture thus forming perceptions on these variables of interest. Within this specific organization, each employee is assigned to a specific role level that is used as the basis for compensation (salary/benefits) and career development discussions and decisions, among other organizational-based practices. These socially constructed role levels are well-known within the organization and hold specific meaning to employees. Role levels broadly depict the type of work the employee performs (i.e., people leader or individual contributor) plus the general level in the organizational hierarchy (i.e., support professional, professional, senior professional, manger, senior manager, executive). It is not uncommon for a manager to supervise a team with members in three or more of these role levels. All possible role levels (Senior Executive, Executive, Senior Manager, Senior Professional, Manager, Professional, and Support Professional) were represented in our sample with 16.5% defined as people-leaders and 83.5% individual contributors at various levels of seniority in the organization.

In the sample, the number of employees supervised by one manager ranged from four to 15 (M = 6.82). We used intact teams spanning 18 different functions, including

but not limited to: Communications, Customer Service, Finance/Accounting, Human Resources, IT Services, Legal, Logistics/Supply Chain, Marketing, Procurement, Research & Development, Sales, and Strategy.

There was also a considerable diversity within each intact team. Of the 418 teams, 90% (376) of them were comprised of both male and female team members. For race, 55% (228) of the included teams had two or more different races represented in the intact team with 16% of teams in the study reflecting three or more different races. There were two or more generations represented in 387 (93%) of the study's intact teams and all three generations were includes in 200 (48%) of the sample's teams. Many of the teams were comprised of team members in different role levels and locations. Specifically, 82% (335) of the teams had members in two or more different organizational role levels, 72% (300) with members across three or more different role levels. Just over one-third (36%; 150) of teams consisting of members in two or more locations with 52 (12%) of the intact teams having members in three or more different geographic locations. Roughly two-thirds of the study sample were located in northern states.

Measures

Employee Engagement. A six-item validated scale from HayGroup/KornFerry was used to measure Employee Engagement (Hay Group, 2001; see Korn Ferry / Hay Group Insight's Employee Effectiveness Framework Research Technical Report for additional information on measure validation). This six-item measure assessed engagement to the broader organization (rather than to one's individual job) and consisted of items asking participants to indicate the extent to which they exerted extra effort on behalf of the organization, spoke positively about the organization to others and

intended to stay in the organization. Example items include “This organization motivates me to contribute more than is required” and “I would recommend this organization to family or friends as a place to work.” Responses were measured on a five-point Likert scale from “1” (Strongly Agree) to “5” (Strongly Disagree) with one survey item using “1” (One of the best) to “5” (One of the worst) and one item measured using a custom scale indicating an employee’s intent to remain with the organization for a specified period of time (i.e., until retirement, more than five years but not until retirement, three to five years, one to two years, less than one year). Reliability of employee engagement was assessed using Cronbach’s measure. As a measure of reliability, a minimum cut off value of 0.70 is taken as evidence for satisfactory evidence for reliability (Haier et. al., 2010). Cronbach’s alpha measure for the engagement scale was $\alpha = 0.80$ (95% CI = .79 - .81).

Diversity Faultline Strength. We determined faultline strength using the Average Silhouette Width (ASW) measure, a cluster-based approach that sorts team members into subgroups according to their similarity to obtain subgroups with the maximum internal homogeneity and maximum between-subgroup heterogeneity (Meyer & Glenz, 2013). In other words, a faultline score indicates the degree to which members in a work team can be arranged into the potential subgroup based on the target diversity attribute. The score reflects both the degree of similarity in members’ other diversity attributes within each subgroup based on the target diversity attribute and the degree of dissimilarity between members of different subgroups in other diversity attributes. For example, assuming the calculation of socio-demographic faultline strength. A high score on socio-demographic faultline strength indicated that subgroups are evident in the team because (a) the subgroup members within the team tend to be highly similar in gender, generation, and race so there is a high degree of internal alignment within subgroups, and

(b) there is a high degree of subgroup differentiation as subgroups within the team tend to be dissimilar in the other diversity attributes (not highly correlated). By comparison, a weak socio-demographic faultline strength indicated that gender, race and generation are not highly aligned creating a clustering of similar subgroups thus creating a salient dividing faultline.

ASW faultline clustering is a two-step procedure (Meyer & Glenz, 2013). First, using agglomerative cluster algorithms (often referred to as hierarchical clustering), we identify a set of start configurations (i.e., a set of subgroups) for a given team where all team members are placed in their own cluster (i.e., subgroup), which depicts maximum cluster separation (e.g., Mojena, 1977). Using all available information, these clusters are subsequently joined in a stepwise way until all team members belong to the same cluster. In the second step, the team's maximum ASW is determined as team members are permutated through each start configuration to identify the optimal subgroup configuration solution. ASW is a measure of the quality of a group's partitioning with reference to the within-subgroup homogeneity, the between-subgroup separation, and the optional number of clusters (Meyer & Glenz, 2013). We selected the ASW measurement approach based on a recently published comparison in Organizational Research Methods of multiple available faultline measures in which ASW most accurately determined subgroup membership and displayed the most favorable properties in the presence of two or more subgroups (Meyer, Glenz, Anttino, Rico, & Gonzalez-Roma, 2014; Meyer & Glenz, 2013). This approach is designed to function effectively with both continuous and categorical data. ASW measures can range in value from 0 to 1, with the value of 1 indicating a strong faultline and 0 indicating no faultline present, either due to lack of

variation in the attribute or extreme variation resulting in lack of attribute alignment. The advantages of ASW make it a superior approach for this study over the other available approaches (e.g., Fau faultline strength (Thatcher et al., 2003); FLS faultline strength (Shaw, 2004); PMDcat Polarized Multi-Dimensional Diversity (Tezzini, 2008); F_k faultline strength based on multiple linear regressions (van Knippenber et al., 2011); Latent Class Cluster Analysis; Subgroup Strength (Gibson & Vermeulen, 2003)). See Meyer and Glenz (2013) for a more comprehensive review of different faultline measures.

Aligned to the Faultline Theory proposition that subgroup formation is more likely when there is alignment of members' multiple diversity attributes and in support of a core focus of this study, we include all diversity attributes when computing the faultline strength for an attribute. Employees' perceptions of others in the team are composed of both socio-demographic, knowledge-based and geo-proximal diversity attributes. Therefore, when studying faultlines in intact teams (vs. lab or quasi-experimental settings where group composition can be manipulated), it is advantageous to use a measure of faultline strength such as ASW that leverages information about multiple attributes simultaneously (Meyer & Glenz, 2013). The resulting faultline strength score for each focal attribute indicated the likelihood of potential subgroups forming based on differences in that particular attribute (e.g., gender or generation). Gender, age (generation), and race were used as measures of socio-demographic faultline strength; team member geographic location was used as a measure of geo-proximal faultline strength; and knowledge-based faultline strength was defined by organization tenure and organizational role level. We used the company-determined categories to calculate

geographic location, as this is believed to hold the most salience and meaning for employees. Leadership in this company often targets communications to subsets of employees based on which company physical location they are based and employees frequently use site name as a descriptive identifier when introducing themselves internally. The result of this approach of including all faultline strength variables together in our analysis is that we simultaneously examine the strength of multiple faultlines, compare their respective effects, and determine which diversity attributes contribute to subgroup formations. In doing so, we can examine the relationship between faultline strength for different types of diversity attributes and employee engagement, having controlled for the effects of other faultlines.

Human Resource Management (HRM) Practices. In strategic HRM research, there has been little consistency in selecting the practices to be combined in an HR system with researchers typically including a wide range of practices spanning selection, training, participation, teamwork and rewards. For this study, perceived HRM practices were evaluated with 15 items adapted from the employee perceptions of HR practices scales developed by Boon, Den Hartog, Boselie and Paauwe (2011), Den Hartog et al. (2013) and Castanheira and Story (2015).

Following the approach of previous studies (e.g., Barrick, et al., 2015; Becker & Huselid, 1998; Boon et al., 2011; Delery, 1998; Den Hartog et al., 2013; Takeuchi et al., 2007) that demonstrated a one-dimensional conceptualization of HR practices was the most appropriate method to evaluate HR systems and that items are best treated as a single additive index of HRM practices reflecting the breadth of an HR system, using a random sample from the larger dataset, we proceeded with a factor analysis using

principal axis factoring with varimax rotation imposing a single-factor solution. This factor explained 45.32 percent of the total variance with all item factor loadings of 0.45 or above and an eigenvalue of 6.80. Scale yielded a coefficient alpha of 0.91, which is comparable to that obtained by Castanheira and Story (2015) for their HR system scale (0.88) and that Den Hartog and collaborators (2013) obtained for their HR system scale (0.85). Items span aspects of the employment relation (i.e., participation, teamwork, autonomy, and job design), people flow/skill enhancing (i.e., training, development, and promotion), and appraisal and reward/motivation-enhancing (i.e., performance management and compensation) bundles. Sample items include: "The better my performance, the better my pay with be", "My work group receives quality support from other groups on which we depend", "I am provided coaching to improve my skills and performance", "I am provided clear & regular feedback", "The better my performance, the better my opportunities for career advancement", "I am encouraged me to make suggestions for improvement", and "Opportunities for learning and development." Responses were measured on a five-point Likert scale from "1" (Strongly Agree; Very Good) to "5" (Strongly Disagree; Very Poor). Later, the reliability of the perception on HRM practices measure using the whole study sample was assessed again using Cronbach's measure. Cronbach's alpha for HRM practices was $\alpha = 0.89$ (95% CI = .88 - .89). Results of Cronbach's alpha measure indicate strong evidence for scale reliability for the HRM practices construct (Haier et al., 2010).

Control Variables. Several variables were controlled for based on their potential to influence the relationships postulated in this study. To observe the unique impact of faultlines as opposed to traditional diversity measures and account for any potential

associations between these diversity attributes and employee engagement, we controlled at the individual level for diversity effects of all attributes (gender, race, generation, geographic location, organizational role level, and organizational tenure) used for faultline calculation (Lau & Murnighan, 1998). At the unit level, we controlled for team size.

CHAPTER 3

RESULTS

Preliminary Analyses

Employee engagement was compared across males and females using independent samples t-test. ANOVA single factor test was used to compare engagement score across categories of race, generation and location.

The main objective of the study was to test the significance of the effect of resulting socio-demographic, geo-proximal and knowledge-based faultlines and perceived HRM practices on individual-level employee engagement. Hierarchical linear modeling (i.e., multilevel modelling method) was selected as the most appropriate approach given the sample (Bryk & Raudenbush, 1992). A classical OLS based regression model assumes a global fixed intercept and slope of predictor variables. It also assumes constant intercept and slope of predictor variables across teams. However, the study design and the data follow a nested pattern with employees nested within intact teams. Multilevel model (MLM) gives the flexibility to incorporate varying intercept and slope of predictor variables across teams thus was the appropriate model building approach for this study.

First, a regression model with OLS method was fitted taking the individual-level demographic variables of gender, race, generation, location, organizational level of the employee and organizational tenure as level one predictors. These were included so that their effect could be estimated and partialled out when assessing the effect of the

hypothesized independent variables at the team-unit level. The OLS model at level one predictors was compared with a random coefficient (intercept) model with “team” taken as the group. The likelihood ratio (LR) test was used to compare the two models and select the most appropriate form of the model to be tested. A significant result on a LR test indicates that the random coefficient model is most appropriate. Otherwise, a fixed effect model must be selected. Once the appropriate model was chosen, the model was estimated to team-unit level to include the derived socio-demographic, geo-proximal, knowledge-based faultline strength (as measured by Silhouette Coefficients) and perceived HRM practices. Using LR, first, the form of the model in level one was updated by adding fixed effects of socio-demographic, geo-proximal, knowledge-based fault line strength and perceived HRM practices. This model was compared with a unit-level model that included both fixed and random effects of unit-level predictors controlling for team size. If the LR test results indicate significant results, then the model with random effects will be chosen; otherwise, fixed effect version should be selected. If the random effects model version was appropriate, then LR test will be used again by comparing different candidate models obtained by excluding each random effect term. This iteration continues till no random effect term can be excluded from the model. The following is the summary of model comparisons to achieve appropriate model form for further testing. Once the unit level model form was finalized, it was tested for the effect of socio-demographic, geo-proximal, knowledge-based faultline strength and perceived HRM practices predictor variables. Interactions of socio-demographic, geo-proximal, knowledge-based faultline strength with perceived HRM practices were added to the model in the last step to test the significance of the moderation effect.

All statistical tests were performed at .05 level of significance. Statistical analysis was performed using R software application

Extracting Faultline Measure: Silhouette Coefficient based Faultline Strength. Silhouette coefficient measure-based faultlines were derived for demographics of employees. Hierarchical clustering was performed first. Leveraging the most widely used clustering performance measure (ASW), the best cluster solution was defined at the one which gives best separation of clusters so that within cluster the variation is least and between clusters the variation is more (i.e., the highest average silhouette coefficient). Based on a series of iterations, the best clustering solution was determined based on the highest average Silhouette Coefficient (SC). A two cluster solution was found as the best cluster solution. Generally, a minimum cut off value of 0.40 or more is considered as indication of reasonably good clustering performance (Haier et al., 2010).

Gender, Race and Generation were used to develop the measure of socio-demographic based faultlines. Using gender, race and generation, a histogram of the distribution of SC for each observation based on the best two cluster solution was created. These SC values were taken as a measure of socio-demographic faultlines to be used in the regression analysis to assess the effect on employee engagement. The histogram of SC values indicates the majority of SC as more than 0.60, very few observations with SC values less than 0.4 and a mean SC for the two cluster as 0.656, all suggesting good clustering performance.

This technique was next used to develop a SC measure-based faultlines for the geo-proximal attribute (i.e., physical work location of team members). These SC values were taken as a measure of geo-proximal faultline strength to be used in the regression

analysis to assess the effect on employee engagement. A histogram of the distribution of SC for each observation based on the best two cluster solution was created. Mean SC for the two cluster solution was 0.696. Histogram of SC values indicates very few observations indicating SC values less than 0.0 with majority of observations indicating SC more than 0.50 suggesting good clustering performance.

Lastly, the same approach was taken to derive SC measure-based faultlines for the knowledge-based attributes of employees. Using organizational tenure and organizational role level variables to calculate the knowledge-based faultline strength, hierarchical clustering was performed first. A histogram of the distribution of SC for each observation based on the best two cluster solution was created. These SC values were taken as a measure of knowledge-based faultline strength to be used in the regression analysis to assess the effect on employee engagement. Mean SC for two cluster solution was 0.429. Histogram of SC values indicates very few observations indicating SC values less than 0.2 with majority of observations indicating SC more than 0.40.

Demographic Attributes on Employee Engagement. Table 1 presents descriptive statistics of employee engagement across the demographic variables of employees. It also presents a summary of the results of the test for the effect of demographic attributes on employee engagement. Independent samples t-test was used to test the effect of gender. Single factor ANOVA test was used to test the effect of race, generation, organization level and location on employee engagement. Results of the tests indicate that gender, organizational level and location indicate significant effect on employee engagement. Consistent with previous work (i.e., Schoelmerich & Schermuly,

2016; Thatcher et al., 2003), all interval and continuous variables were centered to adjust for the possible effect of multicollinearity.

Gender indicated a significant effect on employee engagement. Males indicated significantly higher engagement compared to females (t = -3.311, p = <.01). Similarly, organization level and location indicated a significant effect on employee engagement (p = <.01).

Table 1

Assessing Effect of Demographic Attributes on Employee Engagement

		Mean	SD	t	F
Gender	Male	.026	.711	-3.311**	
	Female	-.059	.672		
Race	Asian	.11	.799	1.289	
	Black	-.046	.652		
	Hispanic	-.062	.744		
	Multiracial A	.188	.620		
	Multiracial B	.167	--		
	Multiracial C	-.233	.515		
	White	-.012	.692		
Generation	Baby bloomer	.008	.712	.832	
	Gen X	-.029	.687		
	Millennials	-.003	.681		
Organization level	3	-.525	.597	62.01***	
	4	-.301	.627		
	5	-.246	.624		
	6	.006	.700		

	7	.078	.694	
	8	-.002	.688	
	9	.040	.696	
Location Code	1	.167	.631	8.376**
	2	.417	.514	
	3	-.148	.658	
	4	.059	.667	
	5	.333	.749	
	6	-.417	.825	
	7	.278	.254	
	8	.031	.719	
	9	.194	.852	
	10	.013	.587	
	11	-.167	-	
	12	.074	.685	
	13	-.250	1.060	
	14	.333	.726	
	15	.778	.856	
	16	.150	.719	
	17	1.222	1.261	
	18	-.351	.428	
	19	-.017	.712	
	20	-.065	.792	
	21	-.333	.384	
	22	-.022	.523	
	23	.033	.711	
	24	.250	.650	
	25	.033	.669	

26	-.129	.643
27	-.084	.659
28	.152	.721

Hypothesis Testing Results

Results of Hierarchical Linear Modeling. Table 2 presents the summary of the process which was used to test the study hypotheses including model results of model comparisons. The null random intercept (for team) model indicated an intra class correlation of ICC = 0.2917 indicating that 29.17% of the variance in employee engagement was attributed to employee teams. Comparison of the OLS based fixed effect model with predictors of gender, generation, race, location, organizational level and tenure was done with a random intercept model version with same set of predictors. Results indicated that the random intercept model was significantly better than the OLS model with pure fixed effects ($\chi 2$ (1) = 28.277, p = <.001).

In the next stage, the unit-level predictor variables of socio-demographic, geo-proximal, knowledge-based faultline measures and perceived HRM practices were included. Again, the fixed effects model version was compared with the full random intercept and random slope version of the model. Results of the likelihood ratio test indicated that the random intercept and random slope version of the model were significantly better than the fixed effects model (χ^2 (12) = 25.258, p = .014).

The best parsimonious model of random intercept and random slope of unit-level predictor variables was again tested using LR test. One random effect term was excluded from the model and tested with the full model. If the results indicated significant reduction (or increase) in the model discrepancy, then the full model version was

retained. Otherwise, the reduced version (excluding the random effect term) was retained. A series of iterations of model comparisons indicated that the full random intercept and random slope model had only one unnecessary random effect term associated with the socio-demographic faultline measure. All the effects in the final model are presented in model # M22.1 in table 2.

Comparison of the best model at the unit-level (M22.1) was compared with the random intercept model at the individual-level. Results indicate that addition of socio-demographic, geo-proximal and knowledge-based faultline measures and perceived HRM practices predictors result in a significant reduction in the model discrepancy (χ^2 (13) = 1848.715, p = <.001). This result indicated a significant combined effect of socio-demographic, geo-proximal and knowledge-based faultlines measure and perceived HRM practices on employee engagement. To extract p values for each predictor variable, the Kenward – Roger approximation method was used (Halekoh, U. & Højsgaard, S., 2011). At .10 level of significance, the significant effect of socio-demographic, geo-proximal and knowledge-based faultline measures on employee engagement was indicated (p = <.10). Precisely, the estimate of the socio-demographic faultline measure on employee engagement was positive and significant at the .10 level of significance (b = 1.19, CI = -.25 – 2.63, p = .10). While significant, the result is in the opposite direction proposed thus support for hypothesis 1 was not found. Estimate of the geo-proximal faultline measure on employee engagement was negative and significant at .10 level of significance (b = -.10, CI = -.21 – .01, p = .08), supporting hypothesis 2. Estimate of the knowledge-based faultline measure on employee engagement was positive and significant at .01 level of significance (b = .57, CI = .19 – .94, p = .01), supporting hypothesis 3.

Now, considering hypothesis 4, which proposed that the effects of socio-demographic faultline strength on employee engagement would be stronger in magnitude than those of geo-proximal and knowledge-based faultline strength. While the estimates of the socio-demographic faultline measure on employee engagement were in the opposite direction proposed (making hypothesis 1 unsupported), based on the relative magnitude of strength, socio-demographic faultlines were the strongest thus lending support for hypothesis 4. Following socio-demographic in the strength of magnitude was knowledge-based then geo-proximal faultlines.

Hypothesis 5 proposed that employee perceptions of the organization's HRM practices would be positively related to employee engagement. However, hypothesis 5 was not supported as no significant effect of perceived quality of HRM practices on employee engagement was reported adjusting for the effect of the other predictor variables (b = 0.00, CI = -0.00 – 0.01, p =.398). See table 3 for additional details.

In the final stage, to test hypothesis 6, the interaction terms of socio-demographic, geo-proximal and knowledge-based faultline measures with perceived HRM practices were included. The combined effect of adding three interaction terms were tested using the partial F-test. Results of the test indicated that adding the interaction terms does not improve the model performance ((χ^2 (3) = 1.001, p = <.801) thus hypothesis 6 was not supported. In other words, the relationship between faultline strength and employee engagement is not moderated in this study by employee perceptions of the organization's HRM practices.

Overall, results of the multilevel modeling indicated a significant effect for all three types of diversity (socio-demographic, geo-proximal and knowledge-based)

faultlines on individual employee engagement with the strongest effect for socio-demographic (supported: H2, H3 & H4). However, the relationship predicted between socio-demographic faultlines and engagement was in the opposite direction and no significant effect of perceived HRM practice nor its interaction with the three types of faultline measures were indicated (not supported: H1, H5 & H6).

Table 2

Model Comparison Process and Results for Multi-Level Modeling

Model #	**Fixed effect term**	**Random effect term**	**Comparison**	**Results / Model selection**
M10	Gender, Race, Generation, Location, Organizational level, Tenure	--	--	--
M11	Gender, Race, Generation, Location, Organizational level, Tenure	Team	(M10, M11)	χ^2 (1) = 28.277, p = <.001 Best of (M10, 11) = M11
M21	Gender, Race, Generation, Location, Organizational level, Tenure, Socio-Demographic faultline, Geo-proximal faultline, Knowledge-based faultline, HRM practices	Team	(M11*, M21)	χ^2 (3) = 18.277, p = <.05 Best of (M11, M21) = M21
M22	Gender, Race, Generation, Location, Organizational level, Tenure	Team, Socio-Demographic faultline, Geo-proximal faultline, Knowledge-based faultline, HRM practices	(M21*, M22)	χ^2 (12) = 25.258, p = .014 Best of (M21, M22) =M22

M22.1	Gender, Race, Generation, Location, Organizational level, Tenure. Team, Socio-Demographic faultline, Geo-proximal faultline, Knowledge based faultline, HRM practices	Team, Geo-proximal faultline, Knowledge based faultline, HRM practices	(M22*, M22.1)	χ^2 (3) = 2.218, p = .528 Best of (M22, M22.1) =M22.1
M22.2	Gender, Race, Generation, Location, Organizational level, Tenure. Team, Socio-Demographic faultline, Geo-proximal faultline, Knowledge-based faultline, HRM practices	Team, Knowledge-based faultline, HRM practices	(M22.2, M22.1)	χ^2 (3) = 64.271, p = <.001 Best of (M22.1, M22.2) =M22.1
M22.3	Gender, Race, Generation, Location, Organizational level, Tenure. Team, Socio-Demographic faultline, Geo-proximal faultline, Knowledge-based fault line, HRM practices	Team, Geo-proximal fault line, HRM practices	(M22.1, M22.3)	χ^2 (3) = 64.271, p = <.001 Best of (M22.1, M22.3) =M22.1
M22.4	Gender, Race, Generation, Location, Organizational level, Tenure. Team, Demographic faultline, Geo-proximal faultline, Knowledge-based faultline, HRM practices	Team, Geo-proximal fault line, Knowledge based fault line	(M22.1, M22.4)	χ^2 (3) = 17.393, p = <.001 Best of (M22.1, M22.4) =M22.1
M31	Gender, Race, Generation, Location, Organizational level, Tenure. Team, Socio-Demographic faultline, Geo-proximal faultline, Knowledge-based faultline, HRM practices. Three interaction terms of faultline measure and perceived HRM practice.	Team, Geo-proximal fault line, Knowledge based fault line, HRM practices	(M22.1, M31)	χ^2 (3) = 1.001, p = .801 Best of (M22.1, M31) =M22.1

Table 3

Hierarchical Linear Modeling of Effect of Diversity Faultlines and HRM

	Model 1			Model 2			Model 3		
	B	***CI***	***p***	***B***	***CI***	***p***	***B***	***CI***	***p***
Gender (male)	.06	(.01, .11)	.021	.05	(.01, .09)	.025	.05	(.01, .09)	.027
Race (Black)	-.10	(-.28, .07)	.250	.00	(-.18, .19)	.980	.01	(-.18, .19)	.944
Race (Hispanic or Latino)	-.12	(-.30, .06)	.191	.97	(-.26, 2.19)	.122	.99	(-.24, 2.22)	.115
Race (Multiracial A)	.21	(-.27, .70)	.394	.29	(-.20, .77)	.250	.29	(-.20, .77)	.250
Race (Multiracial B)	.13	(-1.18, 1.44)	.846	.41	(-.58, 1.40)	.419	.42	(-.57, 1.42)	.406
Race (Multiracial C)	-.30	(-.59, -.01)	.043	.19	(-.20, .59)	.342	.20	(-.20, .59)	.336
Race (White)	-.11	(-.24, .01)	.083	-.03	(-.12, .06)	.530	-.03	(-.12, .06)	.529
Generation (Gen X)	.01	(-.06, .08)	.817	-.03	(-.16, .09)	.600	-.04	(-.16, .09)	.578
Generation (Millennials)	.02	(-.07, .11)	.608	.12	(.05,.19)	<.001	.12	(.05, .19)	<.001
Location (2)	.30	(-.45, 1.04)	.436	-.10	(-.66, .47)	.737	-.08	(-.65, .49)	.778
Location (3)	-.36	(-1.02, .31)	.293	.02	(-.47, .51)	.947(	.00	(-.49, .50)	.992
Location (4)	-.13	(-.74, .48)	.681	.04	(-.42, .49)	.867	.03	(-.42, .49)	.895
Location (5)	.15	(-.52, .83)	.655	.19	(-.31, .69)	.463	.18	(-.32, .68)	.487
Location (6)	-.37	(-1.43, .69)	.494	.04	(-.75, .82)	.929	.02	(-.76, .80)	.959
Location (7)	.17	(-.74, 1.08)	.713	-.01	(-.68, .65)	.973	-.02	(-.69, .64)	.948
Location (8)	-.12	(-.66, .43)	.678	.08	(-.32, .49)	.694	.07	(-.34, .48)	.734
Location (9)	.02	(-.62, .66)	.942	.15	(-.32, .62)	.531	.14	(-.33, .61)	.562
Location (10)	-.24	(-.87, .39)	.457	-.14	(-.61, .33)	.560	-.15	(-.62, .31)	.519
Location (11)	-.17	(-1.57, 1.23)	.815	.20	(-.80, 1.21)	.694	.19	(-.81, 1.20)	.705
Location (12)	-.04	(-.56, .48)	.874	.11	(-.28, .50)	.580	.10	(-.29, .49)	.623
Location (13)	-.33	(-1.39, .72)	.537	.46	(-.33, 1.24)	.253	.43	(-.35, 1.22)	.280
Location (14)	.03	(-.88, .94)	.944	-.10	(-.78, .59)	.780	-.10	(-.78, .59)	.785
Location (15)	.52	(-.40, 1.44)	.265	.55	(-.16, 1.25)	.128	.55	(-.15, 1.26)	.124

Location (16)	-.09	(-.68, .51)	.775	.01	(-.45, .48)	.950	.03	(-.43, .50)	.892
Location (17)	1.13	(.22, 2.05)	.015	.46	(-.26, 1.17)	.209	.52	(-.22, 1.25)	.167
Location (18)	-.48	(-1.16, .21)	.176	.08	(-.44, .60)	.772	.06	(-.47, .58)	.835
Location (19)	-.13	(-.65, .39)	.622	.04	(-.35, .43)	.843	.03	(-.36, .42)	.884
Location (20)	-.15	(-.85, .54)	.665	.24	(-.27, .76)	.352	.24	(-.27, .76)	.358
Location (21)	-.38	(-1.21, .46)	.375	.09	(-.52, .70)	.772	.08	(-.54, .69)	.803
Location (22)	-.13	(-.76, .49)	.673	.25	(-.21, .71)	.285	.24	(-.22, .70)	.305
Location (23)	.00	(-.66, .66)	.995	.13	(-.36, .62)	.607	.12	(-.37, .61)	.626
Location (24)	.04	(-.55, .62)	.905	.20	(-.24, .63)	.378	.19	(-.25, .62)	.403
Location (25)	-.08	(-.60, .44)	.765	.04	(-.35, .43)	.844	.03	(-.36, .42)	.881
Location (26)	-.15	(-.69, .38)	.570	.06	(-.33, .46)	.752	.05	(-.35, .45)	.791
Location (27)	-.20	(-.72, .32)	.447	.02	(-.37, .41)	.911	.01	(-.38, .40)	.954
Location (28)	.04	(-.61, .70)	.894	.15	(-.33, .63)	.541	.14	(-.34, .63)	.563
Org. level (4)	.25	(-.08, .57)	.133	.15	(-.06, .36)	.154	.15	(-.06, .36)	.153
Org. level (5)	.34	(.03, .65)	.031	.19	(-.00, .39)	.054	.19	(-.01, .39)	.057
Org. level (6)	.56	(.26, .86)	<.001	.30	(.11, .49)	.002	.30	(.11, .49)	.002
Org. level (7)	.63	(.33, .94)	<.001	.34	(.14, .53)	<.001	.33	(.14, .52)	<.001
Org. level (8)	.58	(.26, .89)	<.001	.29	(.09, .49)	.005	.28	(.09, .48)	.005
Org. level (9)	.55	(.13, .97)	.011	.23	(-.03, .50)	.087	.23	(-.04, .49)	.092
Tenure	.00	(-.00, .01)	.051	.00	(.00, .00)	.046	.00	(.00, .00)	.045
Socio-Demographic FL				1.16	(-.28, 2.60)	.114	1.19	(-.25, 2.63)	.104
Geo-proximal FL				-.10	(-.21, .01)	.083	-.10	(-.21, .01)	.088
Knowledge FL				.69	(.66, .73)	<.001	.57	(.19, .94)	.003
HRM				.00	(-.00, .01)	.409	.00	(-.00, .01)	.398
Socio-Demo FL * HRM							.20	(-.31, .70)	.445
Geo-proximal FL * HRM							-.04	(-.18, .10)	.546
Knowledge FL * HRM							--	--	--
Random Effects									
σ^2	.414			.213			.214		
$T_{00,\,TL}$	.052			.000			.000		
N_{TL}	418			418			418		
ICC_{TL}	.112			.000			.000		

# observations	2849	2849	2849

Note: FL = faultline, B = estimate of effect β, CI = confidence interval, Multiracial A= American Indian or Alaska native, Multiracial B = Native Hawaiian or Other Pacific Islander, Multiracial C = Two or more races.

Model 1 predictors: Individual level predictors of gender, race, generation, location, organizational level and tenure.

Model 2 predictors: gender, race, generation, location, organizational level and tenure, socio-demographic, geo-proximal, knowledge based faultline measure and perceived HRM practices

Model 3 predictors: gender, race, generation, location, organizational level and tenure, socio-demographic, geo-proximal, knowledge based faultline measure, perceived HRM practices, three interaction terms of faultline and perceived HRM practice.

CHAPTER 4

DISCUSSION

Discussion of Findings

Although diversity has been the subject of a great deal of scholarly and practitioner interest, research on the more sophisticated conceptualizations of diversity and its relationship to individual-level outcomes has only recently begun to gain momentum. Using Faultline Theory (Lau & Murnighan, 1998) to guide our hypotheses, this study examined the effect of different types of diversity faultlines on employee engagement and the role employee perceptions of an organization's HRM practices play in that relationship. Results of the current study lend new insights into the notion that faultlines may not always be harmful and the importance of understanding the individual's experience when strong team-based diversity faultlines are present. Several main conclusions can be drawn from the results of this study.

First, 'all faultlines are *not* created equal' and, contrary to what the team-level outcome focused faultline literature would lead us to believe, diversity faultlines may not be a purely negative phenomenon. We predicated and found a differential pattern of results between the various diversity faultline types and the outcome of employee engagement. Consistent with our expectations, socio-demographic faultlines were found to be the strongest in magnitude followed by knowledge-based then geo-proximal when all three types of diversity faultlines were considered simultaneously in a single model. This is not terribly surprising as socio-demographic faultlines consisted of attributes that

were easily observable, socially salient and woven deeply into an individual's identity by society thus prior research suggests increase their possibility to elicited strong categorizations (e.g., Thatcher & Patel, 2011). On the other hand, faultlines containing attributes that were less visible, carry less social relevance and were more transient in nature displayed a weaker relationship (i.e., knowledge-based and geo-proximal). Ultimately, the differential patterns of results between the three types of faultlines (socio-demographic, geo-proximal, and knowledge-based) and employee engagement submits that the relationship between diversity faultlines and employee engagement isn't as straight-forward as first expected. Prior research suggested this may be the case as related to faultlines and team processes and outcomes but this is one of the few available studies to also provide evidence that a differential pattern of results is also likely when it comes to considering individual-level outcomes and faultlines. Going forward, researches should keep in mind that faultlines do not operate the same across different types of diversity attributes and we should not subscribe to the belief that there is not valuable insights available when different types of diversity faultlines are carefully constructed based on salience and considered simultaneously in a single study.

Related to this, as a field we have heavily centered on understanding the relationship between diversity faultlines and group-level (team) outcomes. A major contribution of this study is that we now have strong evidence that faultlines are important beyond just team-level outcomes and they have a significant relationship to individual-level attitudes thus we should be leveraging multilevel designs more often to unpack these relationships. All three types of diversity faultlines were found to be significantly related to individual employee engagement levels. We predicted that

knowledge-based faultlines would serve as a source of strength within the team. This is contrary to prior (group-level) research typically conceptualizing diversity faultlines as destructive and harmful to teams. When explored at the individual-level, employees in teams defined by stronger knowledge-based faultlines actually displayed more positive levels of employee engagement. When this occurs, team members in different knowledge-based subgroups may recognize the informational resources available to grow their capabilities from other teammates outside their subgroup while also feeling an increased desire to contribute their unique skills to others within the team. Previous research recognizes both development opportunities and recognition as positive predictors of engagement (Korn Ferry / Hay Group, 2001) so it is possible that knowledge-based faultlines provide the opportunity for team members to both share and receive development and recognition focused benefits within the team thus facilitating their higher engagement. This is great news for organizations seeking to increase the level of diversity and then leverage it for better engagement. When possible, managers should leverage and recognize the existence of knowledge-based faultlines within their team to stimulate learning across the subgroups. In other words, they should highlighting opportunities for each subgroup to lend their unique skills and experiences to develop those in a different subgroups while at the same time celebrating the unique value each subgroup brings to the team.

One perplexing finding of this study was the significant positive relationship between socio-demographic faultlines and employee engagement. When there were strong socio-demographic based faultlines in the team, employees displayed more positive levels of engagement, which is counter to what was expected. While this result

necessitates further examination in other samples, some possible explanation can be offered. Breakdowns in cohesiveness, communication and performance are not desired by organizations who are seeking to create high performing teams. Teams with strong socio-demographic faultlines experience worse team processes and outcomes (Thatcher & Patel, 2012). When this happens, it may be that the subgroups formed within the team close ranks, thus contributing to the breakdowns observed at the team performance level, but at the individual level, these subgroups serve as a source of strength for their individual subgroup members. As depicted in Social Categorization Theory (Turner, 1982), faultlines highlight similarities and differences between subgroups thus serving as an accelerant or "activation" in the potential for an "us vs them" mentality. When this subgroup formation happens, this is an emotionally significant experience for the team members resulting in negative dynamics at the team level. However, within the subgroup, members may lend extra support and emotional energy to their specific subgroup members resulting in a rallying of their level of commitment and engagement in light of this perceived "outgroup" threat thus the higher engagement levels. A study by Bezrukova et al. (2010) lends some support to this potential idea. They found that demographic faultlines within a team moderated the relationship between interpersonal injustice and psychological distress. Specifically, where members perceived an interpersonal injustice, strong diversity faultlines helped members cope with the psychological distress produced as a result of the interpersonal injustice. Essentially, the faultline served to create an alternative source of identity-relevant information for subgroup members to feel included and connected (Greenberg, 2006).

Keeping the study by Bezrukova et al. (2010) in mind and the surprising hypothesis one results, we believe it important to note two specific contextual events occurring around the same time as this study data was collected. First, the emergence of Black Lives Matter, a social and political movement for racial equality, and the affiliated public demonstrations across the nation in 2013-2014 ("Black Lives Matter," n.d.). Second, the specific organization used in this study received the prestigious Catalyst Award, which recognizes companies for their innovative initiatives addressing the recruitment, development, and advancement of all women, including diverse women, in mid-2014 ("Catalyst Inc.," n.d.). Considering both these events, it is possible that even with the emergence of Black Lives Matter in the broader community as a possible faultline trigger to racial faultlines, this specific organization being externally recognized in the same year for their efforts around improving diversity equality and inclusion actually resulted in study participants increasing their level of engagement rather than the negative impact predicted. In the strong socio-demographic faultline teams in this specific organization, members may have viewed their subgroups as a source of connection and the broader organization as a "safe" place in which they took pride and felt motivated to remain. Further research is needed in order to understand the role that the broader social and organizational context may have played in the findings of this study. However, we would not be surprised to learn that the social movement of Black Lives Matter served as faultline-related activation trigger (Lau & Murnighan, 1998). A remedy to these triggers may be cross-cutting group membership, which occurs when the members of different subgroups diverge on a faultline-related attribute but are similar on other important factors. For the purpose of this study, the important factor creating

similarity between team members may have been their membership to the same organization [recently recognized for valuing diversity and promoting equality]. Ultimately, one of the strongest (surprising) contributions of this study is the idea that while most prior research finds socio-demographic faultlines detrimental to overall team functioning (e.g., Thatcher & Patel, 2011), which is an important obstacle for organizations to overcome, the negative processes at the team level may not be assumed to flow directly into the decrease of individual team member engagement and the role of context may be even larger than we previously speculated. This is the first study to explore employee engagement and also to operationalize it at the individual-level so we can greatly benefit from future studies replicating this finding of a positive relationship between socio-demographic faultlines and employee engagement. Ultimately, when explored through the lens of the individual experience, strong socio-demographic and knowledge-based diversity faultlines that are related to negative outcomes at the team level may not actually be such a negative experience at the individual level. In fact, the subgrouping resulting from strong socio-demographic and knowledge-based faultlines may actually serve as a source of strength resulting in increased engagement for the team members.

Turning our attention now to the third type of diversity faultline included in this study. This study was one of only a few studies to examine the way that faultlines show up in the increasingly common geographically dispersed work team. Specifically, we sought to understand how a salient (and somewhat contextual) diversity attribute such as the structural location of team members relates to their level of engagement. Often ignored or unaccounted for in faultline studies, we predicted that strong location-based

faultlines would have a negative relationship to engagement. From an organization's perspective, it may seem appealing to move away from the more traditional concept of a central campus in pursuit of more flexible work policies and the opportunity to hire the best candidates regardless of their physical location. With this strategy, organization can save on the cost related to relocation, meet the demands of clients regardless of the time of day and hire the most skilled talent. However, based on our findings, organizations should carefully consider ways to identify those teams with strong geo-proximal based faultlines then proactively intervene to provide additional support and tools to offset the risk of reduced engagement. This is most likely to happen for teams with a moderate level of geographic dispersion, as teams all co-located would have no chance of a faultline forming around this diversity attribute (i.e., location isn't a salient team attribute) and it is more unlikely for a strong faultline when members are completely dispersed. The most common type of team in organizations today is one where team members are located across a couple different locations (i.e., moderate dispersion) and unfortunately, this is also the situation where geo-proximal faultlines seem to be the most destructive. Significant findings that geo-proximal faultlines are negatively related to employee engagement suggests that if organizations do not consider this salient diversity attribute as a part of their overall engagement strategy, they may be faced with decreased performance, increased absenteeism and increased turnover - all outcomes highly linked to lower engagement in previous research. It is the objective of organizations to procure the best talent available, regardless of location, but organizations should not expect to get the best out of these employees and teams if the individual engagement of team members is impacted through the presence of strong geo-proximal faultlines. We purposely

constrained the sample for this study to include only U.S. based employees, thus we limited the time zone differences possible between teammates to a maximum of three hours (e.g., east coast to west coast). Even with this, we observed significant effects of geo-proximal faultline as related to engagement so a strong caution to organizations around the need to proactively manage teams when dispersed across regions (i.e., 12 hour time difference between Asia and United States), as the faultline may become even more salient and more strongly activated. Results of this study suggest that when it comes to engagement, it may even be preferable for the organization to take an 'all or nothing' approach when determining the locations of teams (i.e., all in the same office or all remotely based) rather than an approach of somewhere in the middle.

Lastly, we also examined the role of context, defined as the employee's perceptions of the organizations Human Resource Management Practices (HRM). Intriguingly, HRM did not serve as a significant moderator of the relationship between faultlines and engagement. Perhaps perceptions of organizational HRM practices were coming from individual comparisons with subjective others or other non-team based situations, leaving a relationship with different types of diversity faultlines too distant or far removed to make a difference as a moderator of this relationship. Future research could expand on this and consider other macro-organizational level variables such as types of organizational climate as more salient potential moderators of the relationship between faultlines and engagement. For example, examining diversity climate may provide better insights regarding the relationship between different types of diversity faultlines and employee engagement. Chung et al. (2015) found that supportive diversity climate acted as a significant contextual moderator mitigating the negative consequences

of some types of faultlines on loyal behavior of managers. The role of context was not substantiated in this study but future researchers should not stop seeking to pinpoint potential moderators and mediators of the relationship between different diversity faultlines and employee engagement. This is especially important in the case of geo-proximal faultlines, which were shown to be significant and negatively related to employee engagement.

In summary, we found that different types of diversity faultlines show a significant but varied relationship with employee engagement. Organizations want to increase their level of diversity in order to reap additional team and organizational performance but a warning based on this study's findings is that not all diversity faultlines may be beneficial to this goal. The positive news is that at the individual level, increased diversity and the presence of socio-demographic and knowledge-based faultlines may actually not be a detractor from individual engagement levels. In fact when it comes to these types of faultlines, these may actually we viewed as healthy divides in the team thus a source of engagement for the individual team members. However, in other situations such as those where location-based faultlines exist, organizations should proceed with a more thoughtful approach since the benefits of procuring the best talent regardless of their physical location may be offset with the risk of decreased engagement as geo-proximal faultlines form.

Limitations and Future Directions

Results of this study open up many exciting new avenues for future exploration as related to the role of diversity faultlines but several limitations should be considered. First, as related to the sample used for this study. The data used was taken from a single

organization. The benefits on using a single organization outweigh the drawbacks, such as consistency in conceptualization and measurement of the knowledge-based diversity attributes and inclusion of intact teams. However, to gain these benefits, we needed to accept that we were constrained by the amount of diversity inherent within this specific organization. While we believe that the levels of diversity across the different study attributes were sufficient, future studies may select to increase the overall diversity representation (e.g., race) or introduce additional diversity categories (e.g., Generations) into the overall study sample. For example, Generation Z is beginning to enter the workforce in large numbers and older generations are remaining in the workforce longer so is the same pattern of results observed if these points are considered and Generation Z included in the study sample? Overall, while the results of this study are meaningful, given its novel nature, it is possible that a more diverse sample could product different results so there is value in future studies replicating these findings using a diverse set of multiple organizations spanning industries and sizes.

As previously noted, in order to satisfy the requirement of salience that is foundational to Faultline Theory (Lau & Murnighan, 1998), the study sample was restricted to include only teams where all members were located in the United States. Race is socially-constructed with unique meaning within the United States context so we believed that the insights available through inclusion of this diversity attribute would have been diluted had the study sample been extended to include non-U.S. employees. Even with the decision to only include teams spanning different locations across the U.S., significant results were obtained when it comes to geo-proximal faultlines. We are only beginning to understand the role structural attributes play in faultline research so

selection of diversity attributes with global salience (i.e., nationality) and the inclusion of teams dispersed across the world would be a logical next step in the research in order to understand socio-demographic and geo-proximal faultlines through a slightly different lens.

A strength of this study was the inclusion of data from multiple different sources (i.e., self-report, organization's human capital management system). However, we do recognize that these widely leveraged diversity categories often documented by an organization's HR department and leveraged in this study may not be synonymous or representative of how each employee self-identifies (e.g., third gender or non-binary gender identity). Identification is a key requirement thought to underlie the formation of faultlines (Social Categorization Theory: Turner, 1985; Social Identity Theory: Tajfel, 1978; Similarity-Attraction Paradigm: Byrne, 1971) so the future inclusion of two measures (an employee self-report *and* a measure based on the widely accepted categorizations from the organization's human capital management system) for each included diversity attribute may yield unique insights. Future work should also seek to increase the diversity of socio-demographic variables selected for inclusion by incorporating some that are not as easily observed but deeply tied to one's identity such as sexual orientation.

At the present moment, research related to the role of faultlines on individual-level outcomes is still in its infancy. Significant finding in this study should lend confidence to researches regarding the value of continuing to explore the experience of the individual when different types of diversity faultlines are present. However, we can't neglect unpacking the link between this and the compelling information already

available. Obtaining information about how diversity faultlines affect team processes, group-level affective outcomes and team performance was beyond the scope of the present study. Future studies should seek to bring together into a single study the understanding of the individual experience with the information about the relationship of faultlines on the broader team level. For example, the data in this study represents a specific moment in time and is cross-sectional in nature and therefore it is impossible to infer causality. We know that the evolution and development of a team is not a static, one-time event. The conditions necessary to infer causation are not present in a cross-sectional design, such as temporal separation between the causal variable and the outcome variable (James, Mulaik, & Brett, 1982). Future studies could benefit from the inclusion of a measure to capture the time each member has been a member of the team and/or a measure of where a team is in their formation stage based on Tuckman's (1965) team developmental sequence (i.e., forming, storming, norming, performing) along with measures of individual and team level attitudes and a broader range of possible outcomes (e.g., career advancement, turnover intention). These areas could be especially insightful toward furthering the understanding around how faultlines become activated and the role this plays on individual and group outcomes – a key topic discussed in the original theoretical piece by Lau and Murnighan (1998) yet still not fully understood.

Related to this, we were one of the few to leverage a multi-level approach when it comes to faultlines. Prior research has largely focused on group-level processes and outcomes and how faultlines can create an environment of distrust and conflict (e.g., Li & Hambrick, 2005). Studies have investigated the effects of faultlines on group performance (e.g., Phillips et al., 2004), conflict (Li & Hambrick, 2005), learning

behavior, and satisfaction (Gibson & Vermeulen, 2003; Lau & Murnighan, 1998). Although the introduction of the faultline concept in diversity research has generated much attention, only recently have cross-level effects of faultlines been examined (e.g., Sawyer et al., 2006). Significant information gained from this study taking a multi-level approach should be noted and prioritized going forward in order bring together a more holistic picture of the role of faultlines on both team and individual outcomes.

Lastly, as the volume of research related to faultlines continues to build, it would be informative to consider this topic within the context of the work by Kimberle Crenshaw on intersectionality. Crenshaw originally coined the term of intersectionality to describe the bias and violence against black women but this term has since expanded more widely to reflect other categories of experience (Crenshaw, 1989). Just as Faultline Theory seeks to examine the role of multiple salient diversity attributes within a single team, intersectionality is a lens through which to consider the interlocks and intersections of experiences that get lost with a single-axis analysis. Similar to how a diversity faultline gets lost in the analysis of diversity within teams if a single attribute is considered independently, Crenshaw explains that the experiences of Black women are erased when either race or gender are considered as mutually exclusive categories of experience (Crenshaw, 2016). We limit our understanding and marginalize multiply-burdened group members when investigating experiences on a single-axis framework (Crenshaw, 1989). Faultline Theory's (Lau & Murnighan, 1998) advantage centers on taking a more complex conceptualization of diversity by considering the alignment and distribution of multiple attributes simultaneously within a team. Future faultline researchers may benefit from next considering how the concept of intersectionality defined by Crenshaw informs

our understanding of different individual experiences within the multidimensional subgroups formed in strong faultline teams.

Conclusion

In conclusion, this research serves as an initial examination of employee engagement levels when there are different types of salient diversity faultlines present in an intact team. There is great room for future research to build on the results of this study and to make advances in the area of the individual experience within the broader faultline literature. This is especially an important avenue for diversity researchers and practitioners in light of the continued focus by organizations on increasing diversity as a source of competitive advantage. There is some positive news regarding the potential for faultlines to serve a positive role on employee engagement and a tremendous opportunity ahead for organizations to figure out how to better leverage these faultlines, especially knowledge-based faultlines. However, there is also concerning information as organizations increase the usage of geographically dispersed work teams given previous work suggesting harmful outcome of strong faultlines on group processes and outcomes, as well as the present findings demonstrating the link to lower employee engagement at the individual-level.

REFERENCES

Appelbaum, E., Bailey, T., Berg, P., & Kalleberg, A. (2000). *Manufacturing advantage: Why high-performance work systems pay off.* Ithaca, NY: Cornell University Press.

Arthur, J. B. (1994). Effects of human resource systems on manufacturing performance and turnover. *Academy of Management Journal, 37,* 670–687.

Ashforth, B., & Mael, F. (1989). Social identity theory and the organization. *Academy of Management Review, 14,* 20–39.

Avery, D.R., McKay, P.F., & Wilson, D.C. (2007). Engaging the aging workforce: The relationship between perceived age and similarity, satisfaction with coworkers, and employee engagement. *Journal of Applied Psychology, 92*(6), 1542-1536. doi:10.1037/0021-9101.92.6.1542.

Bakker, A.B., Demerouti, E., (2007). The job demands–resources model: state of the art. *Journal of Managerial Psychology, 22* (3), 309–328.

Bakker, A. B., Hakanen, J. J., Demerouti, E., and Xanthopoulou, D. (2007). Job resources boost engagement, particularly when job demands are high. *Journal of Educational Psychology, 99(2),* 274–284.

Bamberger, P., & Meshoulam, I. (2000). *Human resource strategy*. Newbury Park, CA: Sage.

Barkema, H. G., & Shvyrkov, O. (2007). Does top management team diversity promote or hamper foreign expansion? *Strategic Management Journal, 28,* 663–680.

doi:10.1002/smj.604.

Barrick, M., Thurgood, G., Smith, T., & Courtright, S. (2015). Collective organizational engagement: linking motivational antecedents, strategic implementation, and firm level performance. *Academy of Management Journal, 58,* 111–135.

Batt, R. (2002). Managing customer service: Human resource practices, quit rates, and sales growth. *Academy of Management Journal, 45,* 587–597.

Becker, B. & Huselid, M. (1998). Human resources strategies, complementarities, and firm performance. Unpublished manuscript, SUNY Buffalo.

Bell, S. T., Villado, A. J., Lukasik, M. A., Belau, L., & Briggs, A. L. (2010). Getting specific about demographic diversity variables and team performance relationships: A meta-analysis. *Journal of Management.* Advance online publication. doi:10.1177/0149206310365001

Bezrukova, K., Jehn, K., Zanutto, E., & Thatcher, S. M. B. (2009). Do workgroup faultlines help or hurt? A moderated model of faultlines, team identification, and group performance. *Organization Science, 20,* 35–50.

Bezrukova, K., Spell, C., & Perry, J. (2010). Violent splits or healthy divides? Coping with injustice through faultlines. *Personnel Psychology, 63,* 719-751.

Bezrukova, K., Thatcher, S., & Jehn, K. (2007). Group heterogeneity and faultlines: Comparing alignment and dispersion theories of group composition. In K. J. Behfar & L. L. Thompson (Eds.), *Conflict in organizational groups: New directions in theory and practice* (pp. 57-92). Evanston, IL: Northwestern University Press.

Black Lives Matter (n.d.). Retrieved from https://blacklivesmatter.com.

Blau, P. M. (1964). *Exchange and power in social life.* New York: Wiley.

Boon, C., Belschak, F.D., Hartog, D.N., & Pijnenburg, M. (2014). Perceived Human Resource Management Practices: Their Effect on Employee Absenteeism and Time Allocation at Work. *Journal of Personnel Psychology, 13(1),* 21-33. Retrieved from: http://www.narcis.nl/publication/RecordID/oai%3Auva.nl%3A416712 http://dx.doi.org/10.1027/1866-5888/a000101

Boon C, Den Hartog DN, Boselie P, Paauwe J. (2011). The relationship between perceptions of HR practices and employee outcomes: Examining the role of person organization and person–job fit. *International Journal of Human Resource Management, 22*, 138–162.

Boselie, P., Dietz, G., & Boon, C. (2005). Commonalities and contradictions in HRM and performance research. *Human Resource Management Journal, 15(3),* 67–94.

Bretz, R.D., and Judge, T.A. (1994), 'The Role of Human Resource Systems in Job Applicant Decision Processes.' *Journal of Management, 20*, 531–551.

Brewer, M. B., & Brown, R. J. (1998). Intergroup relations. In D. T. Gilbert & S. T. Fiske (Eds.), *Handbook of social psychology*, (4th ed., pp. 554–594). Boston: McGraw-Hill.

Brewer, M. (1995). Managing diversity: The role of social identities. In S. Jackson & M. Ruderman (Eds.), *Diversity in work teams* (pp. 47-68). Washington, DC: APA Books.

Britt, T. W. (2003). Black hawk down at work: When your most motivated employees can't do their job, get ready for an exodus. *Harvard Business Review, 81*, 16-17.

Brown, R. (2000). Social identity theory: Past achievements, current problems and future challenges. *European Journal of Social Psychology, 30,* 745–778.

Bryk A. S., & Raudenbush, S. W. (1992). *Hierarchical linear models.* Newbury Park, CA: Sage.

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

Carton, A.M., Cummings, J.N. (2012). A Theory of Subgroups in Work Teams. *Academy of Management Review, 37(3),* 441-470

Castanheira, F., & Story, J. (2015). Making Good Things Last Longer: The Role of Savoring on the Relationship Between HRM and Positive Employee Outcomes. *Human Resource Management.*

Catalyst Inc. (n.d.). *Catalyst Award.* Retrieved from https://www.catalyst.org/catalyst-award

Chattopadhyay, P. (1999). Beyond direct and symmetric effects: The influence of demographic dissimilarity on organizational citizenship behavior. *Academy of Management Journal, 42,* 273–287.

Choi, J.,& Sy, T. (2010). Group-level organizational citizenship behavior: Effects of demographic faultlines and conflict in small work groups. *Journal of Organizational Behavior, 31,* 1032-1054.

Christian, M. S., Garza, A. S., & Slaughter, J. E. (2011). Work engagement: A quantitative review and test of its relations with task and contextual performance. *Personnel Psychology, 64,* 89–136.

Chung, Y., & Jackson, S. E. (2013). The internal and external networks of knowledge-

intensive teams: The role of task routineness. *Journal of Management, 39,* 442 468. doi:10.1177/0149206310394186.

Chung, Y., Liao, H., Jackson, S.E., Subramony, M., Colakoglu, S., & Jiang., Y. (2015). Cracking bur not breaking: joint effects of faultline research strength and diversity climate on loyal behavior. *Academy of Management Journal*, 58: 1495-1515.

Church, A. H., & Waclawski, J. (2010). Organizational self-awareness and authentic engagement: The modern quest for the Holy Grail. In D. Dotlich, P. Cairo, S. Rhinesmith, & R. Meeks (Eds.), *The 2010 Pfeiffer Annual: Leadership Development* (pp. 148–161). San Francisco, CA: John Wiley & Sons, Inc.

Cohen, L. L., & Swim, J. K. (1995). The differential impact of gender ratios on women and men: Tokenism, self-confidence, and expectations. *Personality and Social Psychology Bulletin, 21,* 876-884.

Cole, M. S., Schaninger, W. S., & Harris, S. G. (2002). The workplace social exchange network: A multilevel, conceptual examination. *Group Organization Management, 27,* 142–167.

Combs, J., Liu, Y., Hall, A., & Ketchen, D. (2006). How much do high-performance work practices matter? A meta-analysis of their effects on organizational performance. *Personnel Psychology, 59,* 501–528.

Cooper-Hakim, A., & Viswesvaran, C. (2005). The construct of work commitment: testing an integrative framework. *Psychological Bulletin, 131,* 241–259.

Cramton, C. D. (2001). The mutual knowledge problem and its consequences for dispersed collaboration. *Organization Science, 12,* 346–371.

Cramton, C. D., P. J. Hinds. (2005). Subgroup dynamics in internationally distributed

teams: Ethnocentrism or cross-national learning? B. Staw, R. Kramer, eds. *Research in Organizational Behavior*, Vol. 26. Elsevier Science Inc., Oxford, UK, 231–263.

Crenshaw, K. (2016). *The urgency of intersectionality* [Video file]. Retrieved from https://www.ted.com/talks/kimberle_crenshaw_the_urgency_of_intersectionality?language=en#t-1113265.

Crenshaw, K. (). "Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics," *University of Chicago Legal Forum*: Vol. 1989: Iss. 1, Article 8.

Crisp, R. J., & Hewstone, M. (2007). *Advances in experimental social psychology*. In M. P. Zanna (Ed.), Multiple social categorization, vol. 39: 163–254. San Diego, CA: Academic Press.

Cronin, M. A., Bezrukova, K., Weingart, L. R., & Tinsley, C. H. (2010). Subgroups within a team: The role of cognitive and affective integration. *Journal of Organizational Behavior.* Advance online publication. doi: 10.1002/job.707

Cummings, A., J. Zhou, and G. R. Oldham. (1993). "Demographic Differences and Employee Work Outcomes: Effects on Multiple Comparison Groups," Paper Presented at the Annual Meetings of the Academy of Management, Atlanta, Georgia.

De Dreu, C. K. W., & West, M. A. (2001). Minority dissent and team innovation: The importance of participation in decision making. *Journal of Applied Psychology*, *86*, 1191–1201.

Deaux K, Reid A, Mizrahi K, Ethier K. (1995). Parameters of social identity. *Journal of*

Personality & Social Psychology, 68, 280–291.

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.

Delery, J. E. (1998). Issues of fit in strategic human resource management: Implications for research. *Human Resource Management Review, 8,* 289–310.

Demerouti, E., Bakker, A.B., Nachreiner, F., Schaufeli, W.B., (2001). The job demands–resources model of burnout. *Journal of Applied Psychology, 86,* 499–512.

Den Hartog, D. N., Boon, C., Verburg, R. M., & Croon, M. A. (2013). HRM, communication, satisfaction and perceived performance: A multi-level test. *Journal of Management, 36,* 1637–1665.

Earley, P. C., & Mosakowski, E. (2000). Creating hybrid team cultures: An empirical test of transnational team functioning. *Academy of Management Journal, 43,* 26–49.

Espinosa, J.A., Cummings, J.N., Wilson, J.M. & Pearce, B.M. (2003). Team boundary Issues across multiple global firms. *Journal of Management Information Systems, 19,* 157-190.

Fiske, S. T., & Neuberg, S. L. (1990). A continuum of impression formation, from category-based to individuating processes: Influences of information and motivation on attention and interpretation. *Advances in Experimental Social Psychology, 23,* 1–74.

Gardner, T. M., Wright, P. M., & Moynihan, L. M. (2011). The impact of motivation, empowerment, and skill enhancing practices on aggregate voluntary turnover: The mediating effect of collective affective commitment. *Personnel Psychology, 64,* 315-350.

Gebauer, J., & Lowman, D. (2009, April). Engagement gap. *Leadership Excellence*, *26*(4), 5.

Gibson, C., & Vermeulen, F. (2003). A healthy divide: Subgroups as a stimulus for team learning behavior. *Administrative Science Quarterly, 48,* 202-239.

Gonzalez-Roma, V., Schaufeli, W. B., Bakker, A. B., & Lloret, S. (2006). Burnout and work engagement: Independent factors or opposite poles? *Journal of Vocational Behavior, 68,* 165–174.

Gould-Williams, J. (2003). The importance of HR practices and workplace trust in achieving superior performance: A study of public-sector organizations. *International Journal of Human Resource Management, 14*, 28–54.

Greenberg J. (2006). Losing sleep over organizational injustice: Attenuating insomniac reactions to underpayment inequity with supervisory training in interactional justice. *Journal of Applied Psychology, 91,* 58–69.

Griffith, T. L., & Neale, M. A. (2001). Information processing in traditional, hybrid, and distributed teams: From nascent knowledge to transactive memory. In R. Sutton & B. Staw (Eds.), *Research in organizational behavior*, vol. 23: 379–421. Stamford, CT: JAI Press.

Gruenfeld, D., Mannix, E., Williams, K., & Neale, M. (1996). Group composition and decision making: How member familiarity and information distribution affect process and performance. *Organizational Behavior and Human Decision Processes*, *67*(1), 1-15.

Guest, D. E. (1999). Human resource management— The worker's verdict. *Human Resource Management Journal, 9,* 5–25.

Guthrie, J.P. (2001), 'High-Involvement Work Practices, Turnover, and Productivity: Evidence from New-Zealand.' *Academy of Management Journal, 44*, 180–190.

Guzzo, R. A., & Noonan, K. A. (1994). Human resource practices as communications and the psychological contract. *Human Resource Management, 33*, 447–462.

Halbesleben, J., & Wheeler, A. (2008). The relative roles of engagement and embeddedness in predicting job performance and intention to leave. *Work & Stress, 22(3)*, 242–256.

Halekoh, U., & Højsgaard, S. (2011). *pbkrtest: Parametric bootstrap Kenward–Roger based methods for mixed model comparison* (R package version 0.1.3). Retrieved from http://CRAN.R-project.org/package_pbkrtest

Hallberg, U., & Schaufeli, W. (2006). "Same same" but different? Can work engagement be discriminated from job involvement and organizational commitment? *European Psychologist, 11(2)*, 119–127.

Harrison, D. A., & Klein, K. J. (2007). What's the difference? Diversity constructs as separation, variety, or disparity in organizations. *Academy of Management Review, 32,* 1199 –1228. doi:10.5465/AMR.2007 .26586096

Harrison, D. A., K. H. Price and M. P. Bell. (1998). "Beyond Relational Demography: Time and the Effects of Surface- and Deep-Level Diversity on Work Group Cohesion." *Academy of Management Journal,* 41, 96–107.

Harter, J., & Schmidt, F. (2008). Conceptual versus empirical distinctions among constructs:

Implications for discriminant validity. *Industrial and Organizational Psychology: Perspectives on Science and Practice, 1(1)*, 36–39.

Harter, J., Schmidt, F., & Hayes, T. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A metaanalysis. *Journal of Applied Psychology, 87(2),* 268–279.

Hinds, P., & Kiesler, S. (Eds.) (2002). *Distributed work.* Cambridge, MA: MIT Press.

Hofmann, D. A. (1997). An overview of the logic and rationale of hierarchical linear models. *Journal of Management, 23*, 723–744.

Hogg, M., & Turner. J. C. (1987). Intergroup behaviour, self-stereotyping and the salience of social categories. *British Journal of Social Psychology*, *26,* 325-340.

Hogg, M. A. (2006). *Social identity theory. In Contemporary Social Psychological Theories*, edited by P. J. Burke, 111–136. Palo Alto, CA: Stanford University Press.

Homan, A. C., Hollenbeck, J. R., Humphrey, S. E., Van Knippenberg, D., Ilgen, D. R., & Van Kleef, G. A. (2008). Facing differences with an open mind: Openness to experience, salience of intragroup differences, and performance of diverse work groups. *Academy of Management Journal, 51*, 1204-1222.

Homan, A.C., van Knippenberg, D., Van Kleef, G.A., & De Dreu, C.K.W. (2007). Bridging faultlines by valuing diversity: Diversity beliefs, information elaboration, and performance in diverse work groups. *Journal of Applied Psychology*, *92*, 1189-1199.

Homan, A. C., van Knippenberg, D., Van Kleef, G. A., De Dreu, & Carsten K. W. (2007). Interacting dimensions of diversity: Cross-categorization and the functioning of diverse work groups. *Group Dynamics: Theory, Research, and Practice, 11*, 79-94. doi:10.1037/1089-2699.11.2.79

Horwitz, S. K. & Horwitz, I. B. (2007). The Effects of team diversity on team outcomes: A meta-analytic review of team demography. *Journal of Management, 33,* 987-1015. doi: 10.1177/0149206307308587

Huselid, M. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal, 38,* 635–672. http://dx.doi.org/10.2307/256741

Jackson, S. (1992). Team composition in organizational settings: Issues in managing an increasingly diverse work force. In S. Worchel, W. Wood, & J. Simpson (Eds.), *Group process and productivity* (pp. 138-173). Newbury Park, CA: Sage.

Jackson, S. E., Joshi, A., & Erhardt, N. L. (2003). Recent research on team and organizational diversity: SWOT analysis and implications. *Journal of Management, 29*, 801–830.

James, L. R., Mulaik, S. A., & Brett, J. M. (1982). *Casual analysis: Assumptions, models, and data*. Beverly Hills, CA: Sage.

Jehn, K. A., & Bezrukova, K. (2010). The faultline activation process and the effects of activated faultlines on coalition formation, conflict, and group outcomes. *Organizational Behavior and Human Decision Processes, 112(1)*: 24-42.

Jehn, K. A., & Rupert, J. (2008). Group faultlines and team learning: How to benefit from different perspectives. In V. I. Sessa & M. London (Eds.), *Work group learning: Understanding, improving and assessing how groups learn in organizations*: 119-147. New York: Taylor & Francis.

Jehn, K., Bezrukova, K., & Thatcher, S. (2008). Conflict, diversity and faultlines in workgroups. In C. De Dreu & M. Gelfand (Eds.), *The psychology of conflict and*

conflict management in organizations (pp. 179-210). New York, NY: Lawrence Erlbaum Associates.

Jehn, K., Northcraft, G., & Neale, M. (1999). Why differences make a difference: A field study of diversity, conflict, and performance in workgroups. *Administrative Science Quarterly, 44,* 741-763.

Jiang, Y., Jackson, S. E., Shaw, J. B., & Chung, Y. (2012). The consequences of educational specialty and nationality faultlines for project teams. *Small Group Research, 43,* 613–644.

Joshi, A., & Roh, H. (2009). The role of context in work team diversity research: A meta-analytic review. *Academy of Management Journal, 52,* 599-627.

Kahn, W.A. (1990), "Psychological conditions of personal engagement and disengagement at work". *Academy of Management Journal, 33,* 692-724.

Kahn, W.A. (1992), "To be full there: psychological presence at work", *Human Relations, 45,* 321-49.

Kehoe, R. R., & Wright, P. M. (2013). The impact of high performance human resource practices on employees' attitudes and behaviors. *Journal of Management, 39,* 366–391.

Kirkman, B. L., Rosen, B., Gibson, C. B., Tesluk, P. E., & McPherson, S. O. (2002). Five challenges to virtual team success: Lessons from Sabre, Inc. *Academy of Management Executive, 16(3),* 67–79.

Korn Ferry/Hay Group Insight Research Engagement Model (2001)

Kramer, R. M. (1993). Cooperation and organizational identification. In J. K. Murnighan

(Ed.), *The social psychology of organizations: Advances in theory and research*: 244- 268. Englewood Cliffs, NJ: Prentice-Hall.

Kunze, F., & Bruch, H. (2010). Age-based faultlines and perceived productive energy: The moderation of transformational leadership. *Small Group Research, 41,* 593-620.

Lau, D. C., & Murnighan, J. K. (1998). Interactions within groups and subgroups: The effects of demographic faultlines. *Academy of Management Journal, 48,* 645–659. doi:10.5465/AMJ.2005.17843943.

Lavelle, J. J., Brockner, J., Konovsky, M. A., Price, K. H., Henley, A. B., Taneja., V. V. (2009). Commitment, procedural fairness, and organizational citizenship behavior: A multifoci analysis. *Journal of Organizational Behavior, 30,* 337–357.

Legge, K. (2005). *Human resource management: Rhetorics and realities*. Basingstoke, UK: Palgrave Macmillan.

Lepak, D. P., & Snell, S. A. (1999). The human resource architecture: Toward a theory of human capital allocation and development. *Academy of Management Review, 24,* 31–48.

Leslie, L. M. (2014). A status-based multilevel model of ethnic diversity and work unit performance. *Journal of Management,* Advance online publication. doi: 10.1177/0149206314535436.

Li, J. T., & Hambrick, D. C. (2005). Factional groups: A new vantage on demographic faultlines, conflict and disintegration in work teams. *Academy of Management Journal, 48,* 794–813.

Liao, H., Toya, K., Lepak, D. P., & Hong, Y. (2009). Do they see eye to eye? Management and employee perspectives of high-performance work systems and influence processes on service quality. *Journal of Applied Psychology, 94*, 371–391.

Lim, B. C., & Klein, K. J. (2006). Team mental models and team performance: A field study of the effects of team mental model similarity and accuracy. *Journal of Organizational Behavior, 27,* 403– 418. doi: 10.1002/job.387.

Linnehan, F., Chrobot-Mason, D., & Konrad, A. M. (2006). Diversity attitudes and norms: The role of ethnic identity and relational demography. *Journal of Organizational Behavior, 27,* 419–442. doi:10.1002/ job.382.

MacDuffie, J. P. (1995). Human resource bundles and manufacturing performance: Organizational logic and flexible production systems in the world auto industry. *Industrial and Labor Relations Review, 48(2),* 197–221.

Macey, W., & Schneider, B. (2008). The meaning of employee engagement. *Industrial and Organizational Psychology: Perspectives on Science and Practice, 1(1),* 3–30.

Macey, W. H., Schneider, B., Barbera, K. M., & Young, S. A. (2009). *Employee engagement: Tools for analysis, practice, and competitive advantage.* Malden, MA: Wiley & Sons.

Mannix, E., & Neale, M. (2005). What differences make a difference? The promise and reality of diverse teams in organizations. *Psychological Science in the Public Interest, 6*(2), 31-55.

Mauno, S., Kinnunen, U., Ruokolainen, M., (2007). Job demands and resources as

antecedents of work engagement: a longitudinal study. *Journal of Vocational Behavior, 70,* 149–171.

McClean, E., & Collins, C. J. (2011). High commitment HR practices, employee effort, and firm performance: Investigating the effects of HR practices across employee groups within professional services firms. *Human Resource Management, 50,* 341–363.

McGinn, K., & Keros, A. (2002). Improvisation and the logic of exchange in embedded negotiations. *Administrative Science Quarterly, 47,* 442–473.

Meeussen, L., Otten, S., & Phalet, K. (2014). Managing diversity: How leaders' multiculturalism and colorblindness affect work group functioning. *Group Processes & Intergroup Relations, 17,* 629–644. doi: 10.1177/1368430214525809.

Merton, R. K. (1972). Insiders and outsiders: A chapter in the sociology of knowledge. *American Journal of Sociology, 78,* 9-47.

Meyer, B., & Glenz, A. (2013). Calculating diversity faultlines with the asw.cluster package in R: A step-by step guide for beginners (Supplementary material for "Team faultline measures: A computational comparison and a new approach to multiple subgroups," *Organizational Research Methods).* Retrieved from http://www.group-faultlines.org/manual.htm.

Meyer, B., Glenz, A., Antino, M., Rico, R., & Gonzalez-Roma, V. (2014). Faultlines and subgroups: A meta-review and measurement guide. *Small Group Research, 45,* 633–670. doi: 10.1177/1046496414552195.

Meyer, B., Schermuly, C. C., & Kauffeld, S. (2015). That's not my place: The interacting

effects of faultlines, subgroup size, and social competence on social loafing behaviour in work groups. *European Journal of Work and Organizational Psychology*. Advance online publication. doi: 10.1080/1359432X.2014.996554

Meyer, B., Shemla, M., & Schermuly, C. C. (2011). Social category salience moderates the effect of diversity faultlines on information elaboration. *Small Group Research, 42,* 257-282. doi:10.1177/1046496411398396.

Milliken, F. J. and L. L. Martins. (1996). "Searching for Common Threads: Understanding the Multiple Effects of Diversity in Organizational Groups," *Academy of Management Review*, 21, 402–433.

Mojena, R. (1977). Hierarchical grouping methods and stopping rules: An evaluation. *Computer Journal, 20,* 359-363. doi:10.1093/comjnl/20.4.359.

Molleman, E. (2005). Diversity in demographic characteristics, abilities and personality traits: Do faultlines affect team functioning? *Group Decision and Negotiation, 14,* 173-193. doi:10.1007/s10726-005-6490-7.

Mone, E., & London, M. (2009). *HR to the Rescue*. Houston, USA: Gulf Publishing Company.

Morrison, E. W. (1996). Organizational citizenship behavior a critical link between HRM practices and service quality. *Human Resource Management, 35,* 493–512.

Morrow, P. C. (1993). *The theory and measurement of work commitment.* Greenwich, CT: JAI Press.

Murnighan, J. K. (1978). Models of coalition behavior: Game theoretic, social psychological, and political perspectives. *Psychological Bulletin, 85,* 1130–1153. doi:10.1037/0033-2909.85.5.1130.

Nemeth, C. J., & Goncalo, J. A. (2005). Influence and persuasion in small groups. In T. C. Brock & M. C. Green (Eds.), *Persuasion: Psychological insights and perspectives*: 171–194. London, U.K.: Sage.

Newman, D. A., & Harrison, D. A. (2008). Been there, bottled that: Are state and behavioral work engagement new and useful construct "wines?". *Industrial and Organizational Psychology: Perspectives on Science and Practice, 1,* 31–35.

Nishii, L., & Wright, P. M. (2008). Variability within organizations: Implications for strategic human resource management. In D. B. Smith (Ed.), *The people make the place: Dynamic linkages between individuals and organizations* (pp. 225–248). Mahwah, NJ: Routledge.

Nohria, N, Groysberg, Boris, & Lee, L. E. (2008). Employee motivation: A powerful new model. *Harvard Business Review*, 86, 7/8, 78-84.

O'Leary, M. B., & Cummings, J. N. (2007). The spatial, temporal, and configurational characteristics of geographic dispersion in teams. *Management and Information Systems Quarterly, 31*, 433–452.

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

Olson, G., & Olson, J. (2000). Distance matters. *Human-Computer Interaction, 15*, 139–178.

Pearsall, M.J., Ellis, A.P.J., & Evans, J.M. (2008). Unlocking the effects of gender faultlines on team creativity: Is activation the key? *Journal of Applied Psychology, 93*, 225-234.

Pelled, L. H. (1996). "Relational Demography and Perceptions of Group Conflict and Performance: A Field Investigation." *The International Journal of Conflict Management, 7,* 230–246.

Phillips, K. W., Mannix, E. A., & Neale, M. A. (2004). Diverse groups and information sharing: The effects of congruent ties. *Journal of Experimental Social Psychology, 40,* 497–510. doi:10.1016/j.jesp 2003.10.003

Polzer, J.T., Crisp, C.B., Jarvenpaa, S.L., & Kim, J.W. (2006). Extending the faultline model to geographically dispersed teams: How collocated subgroups can impair group functioning. *The Academy of Management Journal, 49,* 679-692.

Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology, 87,* 698–714.

Rich, B. L., LePine, J. A., & Crawford, E. R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal, 53(3),* 617–635.

Rico, R., Molleman, E., Sánchez-Manzanares, M., & Van der Vegt, G. S. (2007). The effects of diversity faultlines and team task autonomy on decision quality and social integration. *Journal of Management, 33,* 111-132. doi:10.1177/0149206306295307

Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology, 21,* 600–619.

Sawyer, J.E., Houlette, M.A., & Yeagley, E.L. (2006). Decision performance and diversity structure: Comparing faultlines in convergent, crosscut, and racially homogeneous groups. *Organizational Behavior and Human Decision Processes, 99,* 1-15.

Schaufeli, W.B., Bakker, A.B., (2004). Job demands, job resources and their relationship with burnout and engagement: a multisample study. *Journal of Organizational Behavior, 25,* 293–315.

Schaufeli, W. B., Taris, T. W., & Bakker, A. B. (2006). Dr. Jekyll or Mr. Hyde: On the differences between work engagement and workaholism. In R. Burke (Ed.), *Work hours and work addiction* (pp. 194–252). Northhampton, UK: Edward Elgar.

Schaufeli, W. B., Taris, T.W., & Van Rhenen,W. (2008).Workaholism, burnout, and work engagement: Three of a kind or three different kinds of employee well-being? *Applied Psychology: An International Review, 57,* 173–203.

Shaw, J. (2004). The development and analysis of a measure of group faultlines. *Organizational Research Methods*, 7, 66-100. doi:10.1177/1094428103259562

Snape, E., & Redman, T. (2009). HRM practices, organizational citizenship behaviour, and performance: A multi-level analysis. *Journal of Management Studies, 47,* 1219–1247.

Snell, S. A. (1992). Control theory in strategic human resource management: The mediating effect of administrative information. *Academy of Management Journal*, *35*, 292–327.

Subramony, M. (2009). A meta analytic investigation of the relationship between HRM bundles and firm performance. *Human Resource Management, 48,* 745–768.

Tajfel, H. (1978). Social categorization, social identity and social comparison. In H. Tajfel (Ed.), *Differentiation between social groups*: 61-76. London: Academic Press.

Tajfel, H. (1981). *Human groups and social categories: Studies in social psychology*.

Cambridge, UK: Cambridge University Press.

Takeuchi, R., Lepak, D. P., Wang, H., & Takeuchi, K. (2007). An empirical examination of the mechanisms mediating between high-performance work systems and the performance of Japanese organizations. *Journal of Applied Psychology, 92,* 1069–1083. doi:10.1037/0021-9010.92.4.1069

Thatcher, S., Jehn, K. A., & Zanutto, E. (2003). Cracks in diversity research: The effects of diversity faultlines on conflict and performance. *Group Decision and Negotiation, 12,* 217–241. doi:10.1023/A: 1023325406946

Thatcher, S. M. B., & Patel, P. C. (2011). Demographic faultlines: A meta-analysis and synthesis of the literature. *The Journal of Applied Psychology, 96*: 1119–1139.

Thatcher, S. M. B., & Patel, P. C. (2012). Group faultlines: A review, integration, and guide to future research. *Journal of Management, 38,* 969–1009.

Trezzini, B. (2008). Probing the group faultline concept: An evaluation of measures of patterned multidimensional group diversity. *Quality and Quantity,* 42, 339-368. doi:10.1007/s11135-006-9049-z

Tsui, A., & Gutek, B. (1999). *Demographic differences in organizations.* Lanham, MD: Lexington Books.

Tsui, A. S., T. D. Egan and C. A, O'Reilly. (1992). "Being Different: Relational Demography and Organizational Attachment," *Administrative Science Quarterly,* 37, 549–577.

Tsui, A. S., Pearce, J. L., Porter, L. W., & Tripoli, A. M. (1997). Alternative approaches

to the employee-organization relationship: Does investment in employees pay off? *Academy of Management Journal, 40,* 1089–1121. http://dx.doi.org/10.2307/256928

Tuckman, B. W. (1965). Developmental sequence in small groups. *Psychological Bulletin, 63,* 384-389.

Turner, J. C. (1985). Social categorization and the self-concept: A social cognitive theory of group behavior. In L.L. Berkowitz (Eds.), *Advances in group processes*: 77-121. Greenwich, CT: JAI Press

Turner, J.C., Oakes, P.J. Haslam, S.A. & McGarty, C. (1994). *Personality and Social Psychology Bulletin, 20(5): 454-463.*

Tziner, A., D. Eden. (1985). Effects of crew composition on crew performance: Does the whole equal the sum of its parts? *Journal of. Applied. Psychology,* 70, 85–94.

U.S. Bureau of Labor Statistics Report 1057, November 2015. *https://www.bls.gov/opub/reports/race-and-ethnicity/2015/home.htm*

Van der Vegt, G. S. and O. Janssen. (2003). "Joint Impact of Interdependence and Group Diversity on Innovation." *Journal of Management,* 29, 729–751.

Van Knippenberg, D., & Schippers, M. (2007). Work group diversity. *Annual Review of Psychology, 58,* 515-541.

Van Knippenberg, D., De Dreu, C., & Homan, A. (2004). Work group diversity and group performance: An integrative model and research agenda. *Journal of Applied Psychology, 89,* 1008-1022.

Verburg, R. M., Den Hartog, D. N., & Koopman, P. L. (2007). Configurations of human

resource management practices: A theoretical model and empirical test of internal fit. *International Journal of Human Resource Management,* 18: 184-208.

Wah, L. (1999). Engaging employees a big challenge. *Management Review, 88*(9), 10.

Webber, S.S., & Donahue, L.M. (2001). Impact of highly and less job-related diversity on work group cohesion and performance: A meta-analysis. *Journal of Management, 27*, 141-162.

Whitener, E. M. (2001). Do 'high commitment' human resource practices affect employee commitment? A cross-level analysis using hierarchical linear modeling. *Journal of Management, 27*, 515–535.

Wiersema, M., & Bantel, K. (1992). Top management team demography and corporate strategic change. *Academy of Management Journal, 35*: 91-121.

Williams, K. Y., & O'Reilly, C. A. (1998). Demography and diversity in organizations: A review of 40 years of research. *Research in Organizational Behavior*, *20,* 77–140.

Wright, P. M., & Boswell, W. R. (2002). Desegregating HRM: A review and synthesis of micro and macro human resource management research. *Journal of Management, 28*, 247–276.

Wright, P. M., & Snell, S. A. (1998). Toward a unifying framework for exploring fit and flexibility in strategic human resource management. *Academy of Management Review*, *23*, 756-772.

Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2009). Work engagement and financial returns: A diary study on the role of job and personal resources. *Journal of Occupational & Organizational Psychology, 82,* 183–200.

APPENDIX A

SELF- REPORT SURVEY ITEMS

Survey items were self-reported using one of the following scales (unless otherwise noted):

> *SA=Strongly Agree, A=Agree, N=Neither Agree nor Disagree, D=Disagree, SD=Strongly Disagree*
>
> *VG=Very Good, G=Good, N=Neither Good nor Poor, P=Poor, VP=Very Poor*

Employee Engagement (HayGroup / KornFerry, 2001)

___ [company] motivates me to contribute more than is required *[SA–SD]*

___ I feel motivated to go beyond my formal job responsibilities *[SA–SD]*

___ I feel proud to work for [company] *[SA–SD]*

___ I would recommend [company] to family or friends as a place to work *[SA–SD]*

___Given your choice, how long are you likely to work for [company]? *[Until Retirement, More than 5 years but not until retirement, 3-5 years, 1-2 years, less than 1 year]*

___ Overall, how would you rate [company] as a place to work compared with other companies you know about? *[One of the Best, Above Avg, Avg, Below Avg, One of the Worst]*

Human Resource Management Practices

(Adapted from Boon et al. (2011), Den Hartog et al. (2013), & Castanheira & Story (2015))

___Providing you clear and regular feedback [VG–VP]

___Coaching you to improve your skills and performance [VG–VP]

___Providing you recognition or praise for good work [VG–VP]

___Encouraging you to make suggestions for improvement [VG–VP]

___Coaching/counseling you in your career development *[VG–VP]*

___Decisions are made without undue delay *[SA–SD]*

___The better my performance, the better my pay will be *[SA–SD]*

___[company] encourages sharing of ideas and resources across the company *[SA–SD]*

___My work group receives quality support from other groups on which we depend *[SA–SD]*

___There is good cooperation and teamwork within my work group *[SA–SD]*

___Your opportunities to achieve your personal career goals at [company] *[VG–VP]*

___Your opportunities for learning and development *[VG–VP]*

___Your opportunity for advancement *[VG–VP]*

___I understand the career opportunities available to me *[SA–SD]*

___The better my performance, the better my opportunity for career advancement *[SA–SD]*