ABSTRACT

Title of thesis: BEING DIFFERENT: A STUDY OF RELATIONAL
                        DEMOGRPAHY AND THE INFLUENCE OF INDIVIDUAL
                        AND TEAM CHARACTERISTICS

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       This study examined the effects of gender and ethnic dissimilarity to team

members on the individual level outcomes of team commitment, turnover intentions,

and psychological empowerment. Results provided some support that dissimilarity to

one's teammates has the most adverse effects for males and African Americans. In

addition, there was some support that ethnic and gender identification and climate for

ethnic diversity may be important moderators of this relationship. Specifically,

individuals with low ethnic and gender identification felt more empowered when

dissimilar to teammates, while individuals with high ethnic and gender identification

had similar levels of empowerment regardless of their dissimilarity to teammates.

Focusing on the team context, a positive climate for ethnic diversity reduced the

negative consequences for individuals who often find themselves in the demographic

minority, while, unexpectedly, a low climate for ethnic diversity seemed to heighten

feelings of empowerment for individuals more dissimilar to their teammates.

BEING DIFFERENT: A STUDY OF RELATIONAL DEMOGRPAHY
AND THE INFLUENCE OF INDIVIDUAL
AND TEAM CHARACTERISTICS

by

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Over the past few decades there has been a shift in the labor market toward a more diverse workforce. Women are better educated and pursuing active careers; racial and ethnic minorities compose an increasing amount of the labor market; and individuals 20 or more years different in age are vying for the same positions (Jackson & Alvarez, 1992). However, research continues to indicate that the organizational experiences of minorities (i.e. women and non-whites) tend to be different than the experiences of other employees. For example, studies show that compared to men, women tend to have lower pay expectations, enter into organizations at lower ranks, hold fewer positions of power in organizations, receive less organizational support and fewer resources, have fewer mentoring opportunities, and have less developed social networks (Dreher & Cox, 1996; Ibarra, 1993; Jackson, Gardner, & Sullivan, 1992; Ragins & Sundstrom, 1989). Similarly, studies show that compared to Whites, racial minorities tend to report lower career satisfaction, receive lower evaluations of job performance, have lower ratings of career advancement potential, have fewer mentoring opportunities, and have less developed social networks (Dreher & Cox, 1996; Greenhaus, Parasuraman, & Wormley, 1990; Ibarra, 1993).

As is evident from the above discussion, a considerable amount of research has examined the consequences of being a minority in an organization in terms of such characteristics as race, gender, age, and so forth. However, less research has examined the possible effects of the increase in diversity on individuals that are used to being in the majority (Tsui, Egan, & O'Reilly, 1992). How may men and White individuals react to the possibility of no longer being in the numerical majority in organizations, and more importantly, how may this impact their fellow co-workers and overall organizational

effectiveness? Furthermore, given the increase in the use of teams among organizations (Jackson & Alvarez, 1992; Milliken & Martins, 1996), it is equally imperative to examine these effects in a team context, going beyond simply looking at diversity across the organization as a whole and exploring how individuals may be affected by changes in the demographic composition of their teams.

One area of diversity research related to this issue focuses on the effects of the relative demographic composition of an organization or group on an individual, otherwise known as the study of relational demography (Chatman & Flynn; 2001; Chatman et al., 1998; Chattopadhyay, 1999; Elvira & Cohen, 2001; George & Chattopadhyay, 2002; Jackson et al., 1991; O'Reilly, Caldwell, & Barnett, 1989; Pelled, 1996; Riordan & Shore, 1997; Tsui et al., 1992; Zenger & Lawrence, 1989). According to relational demography theory, individuals compare their demographic characteristics to those characteristics of the other members in their team or group to assess their similarity or dissimilarity to those individuals (Tsui et al., 1992). When individuals perceive themselves as being similar to their teammates, they tend to show positive individual level outcomes, such as greater organizational citizenship behavior and psychological attachment and lower levels of turnover and perceptions of conflict. In contrast, when individuals perceive themselves as being dissimilar to their teammates, they tend to show more negative consequences on these same outcomes (Chattopadhyay, 1999; Pelled, 1996; Riordan & Shore, 1997; Tsui et al., 1992).

However, the relational demography literature has not produced consistent findings, and the measures used to assess the relative group composition are often operationalized in varying ways across studies (Riordan, 1997). Moreover, much of the

relational demography literature tends to focus on what is termed "symmetric" effects or simply being an outlier or the numerical minority in relation to the group, neglecting the actual characteristics of that individual. In other words, a symmetric effects model of relational demography suggests that being in the numerical minority has the same effects on women and men, racial minorities and Whites. However, some researchers have begun to examine the possibility that being a numerical minority in relation to a group may actually have "asymmetric" effects and affect certain demographic groups to a greater extent than others (Chattopadhyay, 1999; Riordan & Shore, 1997; Tsui et al., 1992). In other words, being in the numerical minority may affect men and women or racial minorities and Whites to a different degree.

Four main studies have examined the potential "asymmetric" effects of relational demography (Chatman & O'Reilly, 2004; Chattopadhyay, 1999; Riordan & Shore, 1997; Tsui et al., 1992). These studies have considered the outcome variables of organizational citizenship behavior, organizational attachment, turnover, employee attitudes toward the group, and perceptions of advancement opportunities. All three studies examining race found a consistent asymmetric effect, showing that when White individuals are in the numerical minority on a team or in an organization in terms of race, they show greater negative consequences (e.g. lower organizational citizenship behavior and attachment and higher turnover, etc.) compared to racial minorities (Chattopadhyay, 1999; Riordan & Shore, 1997; Tsui et al., 1992). In addition, there is some support for asymmetric effects for gender and age, with results indicating that men and older employees placed in the numerical minority show greater negative consequences compared to women and younger employees (Chatman & O'Reilly, 2004; Chattopadhyay, 1999; Tsui et al., 1992).

The findings from these studies suggest that it is essential not to just examine the consequences of being in the numerical minority, but to also examine these consequences relative to specific demographic groups.

Moreover, the potential importance of moderators involved in relational demography has been overlooked, and an examination of potential key moderators could provide greater insight into this process as well as insight into possible practical implications, such as how to minimize the negative consequences individuals face when dissimilar to their teammates. For example, given that this process takes place in a team setting, each team will have its own unique climate and culture potentially affecting team processes and the individuals on the team. Therefore, an examination of various team climates, such as a climate for diversity, may hold important implications for whether the individual in the numerical minority perceives his or her similarity to others as an important variable in how he or she will be treated on the team or in the organization. Finally, each team member will have his or her own unique perceptions of diversity, sense of identity, and relationship with various others. Therefore, individual differences will certainly have an effect on the relevant psychological mechanisms. One influential individual difference may be the extent to which an individual identifies with a particular demographic categorization. In other words, the extent to which an individual in the numerical minority on some demographic characteristic perceives him or herself as being dissimilar to others, or the extent to which he or she perceives this dissimilarity as being important, may depend on the extent to which this particular characteristic is held as an important part of his or her identity.

Thus, this study attempts to extend this area of research by examining the potential "symmetric" versus "asymmetric" relational demography effects on the outcomes of team commitment, turnover intentions, and psychological empowerment. In addition, it further contributes to the existing literature by examining the moderating role of gender/ethnic identification and team climate for diversity (see Figure 1). In the following sections, I (a) review the dominant theories used in the relational demography literature, (b) outline and explain the outcome variables of interest, (c) present the current study and hypotheses, and (d) discuss the results and their implications for future research and currently functioning organizations.

Relational Demography

As discussed above, relational demography theory proposes that individuals compare their own demographic characteristics to the demographic characteristics of the other members of their team or group to assess their similarity or dissimilarity to others. Their similarity or dissimilarity relative to other group members then has both cognitive and affective consequences for the individual (Tsui et al., 1992). Previous relational demography literature has focused on two theoretical frameworks to explain these processes: (a) the similarity-attraction model and (b) self-categorization and social identity theory.

Similarity-Attraction Model

According to the similarity-attraction model (Byrne, 1971), individuals are attracted to other individuals on the basis of similarity. This model has often been examined on the basis of personality characteristics and values, but it also extends to demographic characteristics, such as age, gender, and ethnicity (Byrne, 1971). Based on

this paradigm, a woman will be more attracted to a group or team of which she is a part if the majority of the members on the team are also female. In contrast, a man will feel less attracted to the team and its members if the majority of the other members are women and thus, dissimilar. The assumption is that individuals who are similar in demographic characteristics are also likely to be similar in terms of attitudes, values, and so forth, due to their membership in that specific demographic group. Furthermore, research has indicated some support for the assumption that this attraction to similar individuals leads to more frequent communication, higher levels of integration into the group, and fewer perceptions of conflict (O'Reilly et al., 1989; Pelled, 1996; Zenger & Lawrence, 1989), ultimately resulting in other individual level consequences such as job satisfaction, team commitment, and turnover. In other words, when team members view the other team members as similar in some important way, they are attracted to or like those individuals due to this mutual similarity. Based on this mutual attraction, the individuals are likely to communicate more, have lower conflict, and be integrated into the group more quickly.

Self-Categorization Theory and Social Identity Theory

A second framework used to explain the effects of relational demography has been the combination of self-categorization theory and social identity theory (Tajfel & Turner, 1986; Turner, 1987). According to these theories, individuals constantly seek maintenance of a positive self-identity and self-esteem through a process of self-categorization in which individuals classify themselves and others into social categories. These social categories are then used to differentiate the self from others in ways that maintain one's unique social identity and self-esteem through membership in that group. These categorizations then lead to inferences of in-group similarity and attraction and

out-group dissimilarity and low attraction, tying into the similarity-attraction paradigm previously discussed. Therefore, if one's ethnic group membership is an important part of one's identity, one will make categorizations of other individuals on the team based on their ethnicity. Those individuals who are perceived as being similar will be categorized as in-group members, while those who are perceived as being dissimilar will be categorized as out-group members (Tsui et al., 1992). Similarly, if being a woman is an important part of one's identity or self-concept, one will categorize other women as similar and part of an in-group and men as dissimilar and part of an out-group.

<div align="center">Consequences of Relational Demography</div>

The theories outlined above (Byrne, 1971; Tajfel & Turner, 1986; Turner, 1987) suggest that one's demographic similarity to other members of an organization, or for the focus of this study, one's team, may influence attraction to other team members and the team as a whole, resulting in various affective and cognitive consequences. Although past relational demography research has examined many different outcomes, in the present study, I focused on the three individual level outcomes described below: team commitment, turnover intentions, and psychological empowerment.

Team Commitment

One important consequence that may result from perceptions of dissimilarity is team commitment. If an individual is in the numerical minority relative to other group members regarding some demographic characteristic, and as a result perceives him or herself as dissimilar to other team members, he or she may feel like less a part of the team. In addition, if these feelings of dissimilarity result in lower attraction to other team members, it is likely that the individual may be less likely to want to invest considerable

amounts of energy into the team or his or her role as a team member and may be less committed to the team and its productivity. However, it is possible that asymmetric effects may exist for team commitment as well. That is, despite feelings of dissimilarity, for those individuals that may feel their membership in a team may benefit their career, these individuals may show greater team commitment compared to other individuals, when in the numerical minority on a team.

To my knowledge, only two relational demography studies thus far have examined commitment, one at the organizational level and one at the group level (Riordan and Shore, 1997; Tsui et al., 1992). However, these two studies produced somewhat conflicting results in that Riordan and Shore (1997) found purely symmetric effects for race and work group commitment, while Tsui et al. (1992) found support for asymmetric effects for gender and race in terms of psychological attachment. Thus, a further examination of this construct and its potential symmetric versus asymmetric effects is beneficial, especially given its relationship to other important team processes (Bishop, Scott, & Burroughs, 2000).

Turnover Intentions

A second important consequence that may result from perceptions of dissimilarity is turnover. The above theories (Byrne, 1971; Tajfel & Turner, 1986; Turner, 1987) suggest that when in the numerical minority, an individual may feel that his or her opinions are not valued, may receive less communication, or may feel less attachment to the group due to feelings of dissimilarity. As a result, these feelings may actually lead the individual to desire to leave the team in search of more meaningful or fulfilling employment. However, it is also possible that despite feelings of dissimilarity, members

of certain demographic groups may wish to remain with their team due to possible advancement opportunities it may provide. For example, knowing that men traditionally occupy higher status positions, women may perceive that there are more opportunities for recognition and promotion when on a team composed of mostly males. Consistent with this line of reasoning, turnover intentions have often been found to be a consequence of demographic dissimilarity in past research (e.g. Chatman & O'Reilly, 2004; Elvira & Cohen, 2001; O'Reilly et al., 1989; Tsui et al., 1992), with findings indicating support for both symmetric and asymmetric effects in terms of race and gender. Therefore, based on this past research and given the resulting organizational consequences, such as the need for new hiring and training, turnover intentions remain an important variable in the study of relational demography.

Psychological Empowerment

A final important consequence that may result from such an experience deals with psychological empowerment. Psychological empowerment is a motivational construct that includes the degree of meaning, competence, self-determination, and impact an individual feels he or she has in his or her job (Spreitzer, 1995). It also relates to feelings of self-efficacy and has been widely used to assess issues of the "powerlessness" of minority groups (Conger & Kanungo, 1988). Again, the above theories (Byrne, 1971; Tajfel & Turner, 1986; Turner, 1987) suggest that when in the numerical minority in terms of some demographic characteristic, individuals may receive or perceive themselves as receiving less communication from other team members and less integration into the group as a result of being dissimilar. These experiences and perceptions of dissimilarity may lead individuals to also perceive that their opinions will

be less valued or that they will be viewed as a less competent and important member of the group. As a result, an individual is likely to feel little psychological empowerment in his or her job. However, asymmetric effects for psychological empowerment may also exist. That is, despite feelings of demographic dissimilarity, individuals who perceive other team members as traditionally occupying higher status positions may feel more empowered by being part of such a team.

In contrast to turnover intentions and commitment to the team, empowerment does not seem to have been examined in the relational demography literature but has important implications for both individual and team functioning (Spreitzer, 1995). Thus, the inclusion of psychological empowerment in the present study provides further insight into additional key consequences of team diversity in organizations.

Proposed Effects of Relational Demography

Symmetric Effects

According to the proposed symmetric effects model of relational demography, individuals compare their own demographic characteristics to other members of the group to assess their similarity (Tsui, Egan, & O'Reilly, 1992). As proposed by social identity theory (Tajfel & Turner, 1986), the comparison process enables the individual to maintain a sense of his or her self-identity and self-esteem based on his or her categorizations of others as similar and in-group members or dissimilar and out-group members. Following the similarity-attraction theory (Byrne, 1971), when an individual feels highly similar to others, he or she will be more attracted to those individuals, whereas when an individual feels highly dissimilar to others, he or she will be less attracted to those individuals.

As shown in Figure 1, according to a symmetric effects model, this process and the consequences will be the same for all individuals in the numerical minority. Therefore, a woman on a team composed predominately of men will feel and react the same way as a man on a team composed predominately of all women. Put in this situation, a woman will perceive other women as similar and members of an in-group, leading to attraction, and men as dissimilar and members of an out-group, leading to low attraction. In contrast, a man will perceive other men as similar and members of an in-group, leading to attraction, and women as dissimilar and members of an out-group, leading to low attraction. If the individual's out-group dominates the composition of the team, the individual may also show lower attraction for the team as a whole.

Based on this framework, feelings of similarity will lead to attraction and perceptions of being an in-group member, which will lead to greater team commitment and lower intentions to leave the job. In addition, feelings of similarity will help maintain a positive sense of identity and self-esteem, facilitating feelings of empowerment in the team context. In contrast, dissimilarity with other team members will not facilitate attraction and will cause the individual to categorize the other members of the team as members of an out-group, leading to lower team commitment and empowerment and greater intentions to leave the job.

> *Hypothesis 1 (H1): The greater the dissimilarity between an individual's gender and ethnicity and the gender and ethnicity of his or her teammates, the lower the individual's team commitment and empowerment, and the higher his or her turnover intentions.*

Asymmetric Effects

According to the proposed asymmetric effects model of relational demography (Chattopadhyay, 1999; Tsui et al., 1992), the relationship between an individual's similarity to the other members of the team will affect the outcomes of team commitment, turnover intentions, and empowerment to a different degree depending on the demographic characteristics of the individual in the numerical minority. Thus, as shown in Figure 1, the demographic characteristics of ethnicity and gender are considered to moderate the relationship between dissimilarity and the individual outcomes, such that the strength of the relationship differs for different gender and ethnic groups.

Chattopadhyay (1999) and Tsui et al. (1992) argue that for those individuals who are accustomed to being in the majority in terms of demographic characteristics, such as gender, race, and age, suddenly being in the numerical minority may make those categorizations especially salient, increasing the negative impact of the dissimilarity. In contrast, individuals who are considered minorities by society may be accustomed to being the numerical minority in groups and therefore, may not be as adversely affected by the dissimilarity.

Furthermore, men still make up the majority of the workforce, tend to hold higher positions of status in organizations and tend to have higher salaries compared to women (Ragins & Sundstrom, 1989). Therefore, a woman may expect or be accustomed to being in the numerical minority on a team, whereas a man may not, increasing the salience of gender categorizations on the team for men. As a result, when a man is on a team composed predominantly of women, he may notice differences in terms of gender to a greater extent, enhancing feelings of dissimilarity to other team members and impacting

cognitive and affective consequences. Furthermore, in a recent study specifically examining turnover intentions, Chatman and O'Reilly (2004) found that men had greater turnover intentions when in the numerical minority compared to women and that women were actually more likely to want to leave a group when it was all women. They argue that despite certain affective and cognitive consequences created by being in the numerical minority, women may actually prefer to stay in non-homogeneous groups and wish to leave all female groups due to perceptions of lower advancement opportunities in these groups. Similarly, Chattopadhyay (1999) argues that these consequences may be greater for men given that men are accustomed to having higher status and pay compared to women and may associate women with lower competency. Therefore, knowing that women often occupy lower status positions, men may fear that they also have lower status when they are working within a predominantly female environment and may want to leave or feel less competent or committed to that team. Conversely, knowing that men often occupy higher status positions, women may feel empowered and view themselves as having higher status or more available opportunities as part of that particular team.

> *Hypothesis 2a (H2a): Compared to women, men will show lower levels of team commitment and empowerment and higher turnover intentions when dissimilar to their teammates in terms of gender.*

Similar arguments apply to the categorization of race or ethnicity. White individuals are accustomed to being in the majority in most situations. Therefore, when placed in a team environment predominantly composed of a majority of ethnic minorities, a White individual may notice differences in terms of race or ethnicity to a greater degree, compared to an ethnic minority in a team environment predominantly composed

of Whites. Furthermore, similar to gender, Chattopadhyay (1999) argues that White employees may feel undervalued by their team or organization due to an association of ethnic minorities having traditionally lower status and pay compared to Whites. In contrast, ethnic minorities may be expecting or are accustomed to being in the numerical minority on a team, reducing the impact of demographic differences. Therefore, knowing that ethnic minorities often occupy lower status positions, Whites may fear that they also have lower status when they are working within a predominantly ethnic minority environment and may want to leave or feel less empowered or committed to that team. Conversely, knowing that Whites often occupy higher status positions, ethnic minorities may feel empowered and view themselves as having higher status or more available opportunities as part of that particular team.

> *Hypothesis 2b (H2b): Compared to ethnic minorities, Whites will show lower levels of team commitment and empowerment and higher turnover intentions when dissimilar to their teammates in terms of ethnicity.*

<div align="center">Moderators of Relational Demography</div>

Gender and Ethnic Identification

A key assumption of the self-categorization and social identity framework is that the categorization is based on essential aspects or components of an individual's identity or self-concept (Tajfel & Turner, 1986; Turner. 1987). This framework suggests that if being African American or being female is not an important aspect of one's self-concept, it will not be salient when comparing one's self to other team members and making categorizations. Instead, an individual will make categorizations and comparisons of similarity based on more salient or important aspects of his or her self-concept. An

individual's self concept and source of self-esteem is thus defined and reinforced by making comparisons between characteristics shared by in-group members to those of out-group members based on the salience of certain categorizations (Brewer & Gardner, 1996). Thus, the extent to which being Latino, for example, on a team composed of a majority of White individuals is an important factor depends on the extent to which being Latino is a salient and important part of one's self-concept. Although being Latino may be made more salient simply by being in the numerical minority based on ethnicity (Mullen, 1993), the extent to which it affects cognitive and affective responses may depend more on whether being Latino serves as an important part of the individual's self-concept or identity. In other words, as shown in Figure 1, the degree of this relationship should be moderated by the extent to which the individual in the numerical minority emphasizes his or her ethnicity or gender as a part of his or her identity. If an individual does not hold gender or ethnicity as an important part of his or her identity, these differences should be less salient to start with, and the individual should be less likely to categorize demographically similar individuals as in-group members and demographically dissimilar individuals as out-group members based on that particular characteristic. Furthermore, different components of one's gender or ethnic identification may be more important than others in moderating this process. Thus, this hypothesis is analyzed by examining several identity factors that may compose an individual's overall gender or ethnic identification.

> *Hypothesis 3 (H3): The level of gender or ethnic identification will moderate the*
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> *relationship between gender and ethnic dissimilarity and the proposed outcomes.*
>
> *That is, when in the numerical minority in terms of gender or ethnicity, an*

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individual with high gender or ethnic identification will show lower levels of team

commitment and empowerment and greater turnover intentions when dissimilar to

other teammates than will an individual with weak gender or ethnic identification.

Climate for Diversity

A final construct in Figure 1 that has not yet received attention but has the

potential to be an important moderator of the proposed relational demography effects is

climate for diversity. According to Schneider (1975), a climate can be defined as

employees' shared perceptions of organizational practices and procedures, or what is

rewarded and supported by the organization. This consists of both formal and informal

aspects of the organization, such as how employees are treated by supervisors and each

other, as well as how performance is rewarded. Given the broad scope of an overall

organizational climate, research in this area has tended to focus on specific climates

contained within an organization, such as a climate for safety or a climate for service

(Schneider & Reichers, 1983). Along with this more specific focus, research on a climate

for diversity has also been developed in the past decade (Barak, Cherin, & Berkman,

1998; Hicks-Clarke & Iles, 2000; Kossek & Zonia, 1993; Nishii & Raver, 2001).

Given that each team in an organization is composed of different individuals, has

a different supervisor or leader, and may implement policies and procedures differently,

the team environment in which an employee works is likely to have a significant impact

on that employee's experience (Zohar, 2000). For example, in research on a group-level

model of safety climate, Zohar (2000) argues that organizational policies and procedures

are established at the organizational level, but their implementation occurs at the subunit

or team level. As a result, organizational climate perceptions of diversity may differ from

team climate perceptions of diversity based on the patterns of the individual team and the supervisor or team leader. Even if a positive organizational climate for diversity exists, the team climate may differ and will have the most impact on individual team members and interactions. Given that employees work within teams or work groups, it is thus necessary to examine the influence of a shared climate for diversity at the team level instead of the organizational level. Furthermore, literature on organizational climates has examined the potential moderating relationship between various organizational climates and individual difference outcomes and provides evidence indicating that climate can play an important moderating role (e.g. Hofmann, Morgeson, & Gerras, 2003; Probst, 2004; Smith-Crowe, Burke, & Landis, 2003).

A review of the current literature indicates that there is no consistent or widely accepted definition of climate for diversity (Barak et al., 1998; Hicks-Clarke & Iles, 2000; Kossek & Zonia, 1993; Nishii & Raver, 2001). Previous definitions of a climate for diversity have ranged from "a general perception toward the importance of employer efforts to promote diversity and . . . attitudes toward the probable beneficiaries of these efforts (i.e. white women and racioethnic minority men and women) in one's unit" (Kossek & Zonia, 1993, p. 63) to " employees' shared perceptions of the policies, practices, and procedures that indirectly and directly communicate the extent to which fostering and maintaining diversity is a priority in the organization" (Nishii & Raver, 2001).

Although past definitions contain similar elements, they vary in their breadth and consideration of what truly makes up a climate for diversity in an organization. Moreover, the demographic characteristics targeted in most of these climates are gender

and racial classifications, excluding other potentially important distinctions, such as rank. Therefore, although the various definitions used in past research certainly capture some important factors involved in creating a positive climate in which individuals of all races, genders, etc. can work, I felt these definitions were still missing some key components. Moreover, these definitions and measures tend to lump all demographic characteristics together, overlooking possible differences based on various demographic factors. For example, it is possible that a positive climate for gender diversity exists, but not for race or ethnicity. It is important to examine an overall climate for diversity, but also acknowledge that more precise climates for diversity may exist. Thus, in this research, I conceived of a team climate for diversity as employees' shared perceptions of (a) equal treatment in terms of rewards, support, and access of information and (b) the existence or lack of conflict, discrimination, and subgroups based on membership in certain demographic groups. A high or positive climate for diversity, for example, consists of individuals receiving equal treatment in terms of rewards, support, and access to information, regardless of their gender or ethnicity, as well as little or no conflict, discrimination, or subgroups based on membership in certain demographic groups. In contrast, a low or negative climate for diversity consists of individuals not receiving equal treatment in terms of rewards, support, and access to information, due to their demographics, as well as high conflict, discrimination, or subgroups based on membership in certain demographic groups.

Furthermore, I acknowledge that in addition to an overall climate for diversity, more specific climates for diversity may exist. Therefore, in this study, I assessed each issue or factor included in composing a climate for diversity separately for the

demographic factors of race or ethnicity, gender, and rank. Therefore, a climate for gender diversity would moderate gender dissimilarity, while a climate for ethnic diversity would moderate ethnic dissimilarity.

Research has shown that one's own social identity and characteristics compared to others become more salient as an individual becomes more of a minority (Mullen, 1983), and self-categorization theory (Turner, 1987) proposes that individuals make categorizations of in-group versus out-group status based on the similarity of these characteristics. However, if categorizations based on demographic characteristics are made less salient or less important due to the existence of a positive climate for diversity, the strength of the relationship between demographic similarity and the proposed outcomes should be weaker. As discussed previously, if an individual is in the numerical minority in terms of a certain demographic characteristic, he or she is likely to perceive others as similar and members of an in-group or as dissimilar and members of an out-group. However, if a positive climate for diversity exists through the creation of a team atmosphere that values diversity and the implementation of fair procedures and practices for all individuals regardless of race, gender, and so on, the individual may be less likely to categorize people as part of an in-group versus an out-group if they think that the perceived differences are not important to others and his or her acceptance in the group. In addition, a positive climate for diversity should enhance communication and increase integration into the team for all individuals, regardless of group membership.

> *Hypothesis 4a (H4a): Team Climate for Diversity will moderate the relationship*
>
> *between demographic dissimilarity and the individual level outcomes of team*
>
> *commitment, empowerment, and turnover intentions, such that the stronger a*

positive team climate for diversity, the less negative the impact of demographic dissimilarity on the proposed individual level outcomes.

Finally, as shown in Figure 1, the degree of this moderating relationship should be moderated itself by the extent that the individual in the numerical minority emphasizes his or her ethnicity or gender as a part of his or her self-concept. If an individual does not hold ethnicity or gender as an important part of his or her self-concept, these differences will be less salient to start with and he or she will be less likely to create categorizations of in-group out-group distinctions based on similarity. Thus, for those individuals who do not hold ethnicity or gender as an important part of their self-concept, climate for diversity should not have as significant of a moderating impact.

Hypothesis 4b (H4b): There will be a three-way interaction between gender/ethnic identification, climate for diversity, and demographic dissimilarity, such that the higher the gender or ethnic identification the greater the impact of a positive climate for diversity on team commitment, empowerment, and turnover intentions.

Method

Participants

The respondents in this study were employees from the library system of a large Mid-Atlantic University. The library system was organized in a team structure, and therefore, respondents worked on teams with varying levels of interdependence. Each team was also part of one of five divisions within the library system, with the majority of teams (14 of 37) belonging to the Public Services division and the fewest number of teams belonging to the Planning and Administrative Services division (3 of 37). The

membership of the remaining teams was distributed fairly evenly among the remaining three divisions. However, there was no significant correlation between the level of work interdependence of the team members and membership in any division, $r(35) = .08$, $p > .05$. A total of 209 employees from 53 teams completed the survey, providing a response rate of 71.1% and a within team response rate of 78% for those teams that were used in the final analyses. Teams with fewer than three members and those teams that did not have data for the control variable work interdependence were removed. Therefore, the final sample consisted of 163 respondents from 37 teams.

In terms of team composition for ethnicity, 25 of the teams were majority White; ten were majority ethnic minority; and two were split half White and half ethnic minority. In terms of gender, five of the teams were majority male; 26 were majority female; and six were split half male and half female. There was an average of 7.77 members per team with a standard deviation of 3.50. Team size ranged from 3 to 16 members, and size was not significantly correlated with membership in any particular division, $r(35) = .10$, $p > .05$. The average work interdependence score, as reported by supervisors, was 3.44 (SD=.75) on a 5-point response scale, with a higher score indicating greater interdependence.

Sixty-four percent of respondents were White, 10% African American, 10% Asian or Asian American, 3% Hispanic, 3% International, and 1% Biracial; 10% of respondents reported other or did not indicate ethnicity. However, due to lower sample sizes, only Whites, African Americans, and Asian or Asian Americans were used in the final analyses. Ninety-one Whites were members of a majority White team; nine African Americans were members of a majority White team; and only five Asians or Asian

Americans were members of a majority White team. All other individuals were members of a majority ethnic minority team. Sixty-five percent of respondents were female and 29% were male; 6% did not report gender. Nine females were members of a majority male team, and 14 males were members of a majority male team. All other individuals were members of a majority female team. Finally, in terms of rank, thirty-six percent of respondents were librarians (indicating higher rank) and 57% were staff; 7% did not report. The age of the respondents ranged from 23 to 71, with a mean age of 46. On average, team members had at least a Bachelor's degree.

Procedure

This research was part of a larger survey given to respondents during a consulting project with a large Mid-Atlantic University library system. Participation was voluntary and employees were informed that all responses would be kept confidential and thus, no names or identifying information were collected. Employees filled out the surveys during working hours by coming to one of several sessions held by the researchers over a period of two weeks. Employees reported to a designated room where they obtained a survey from the administrator, completed it, and deposited it in a collection box. The survey took approximately 45 to 90 minutes to complete. Those employees unable to come to one of these sessions were sent a survey via mail, which they could then fill out and mail back to the researchers. Work interdependence data were obtained from team supervisors at a separate time in which supervisors completed a short survey directed at the specific team or teams which they supervise. After accounting for teams with fewer than three members, thirty-seven of forty-two supervisors returned completed surveys, providing an

88% response rate for work interdependence. Team demographic composition and mean

team educational level data were obtained from library system administrative records.

Measures

  Individual demographics. Individual demographics were measured according to

the following scale: For the ethnicity variable, 1 = African America, 2 = Asian / Asian

American and 3 = White; the sample sizes for the remaining ethnic minorities were not

large enough to be included in the analyses. For gender, 1 = female and 2 = male.

  Team demographic composition. Team demographic composition was measured

by calculating the percentage of White team members for ethnic composition and male

team members for gender composition. In order to obtain accurate measures of team

composition, the calculations were based on employee records so all team members were

taken into account regardless of their participation in the actual survey.

  Relational demography. Researchers have varied in their operationalizations of

demographic dissimilarity in relational demography research (Riordan, 1997). Two main

approaches have been used (1) the difference score approach or Euclidean distance

measure and (2) the interaction term approach. Given the discrepancy in the literature as

well as the advantages and disadvantages associated with these different

operationalizations of demographic dissimilarity, I used both approaches in order to

compare techniques and their subsequent results.

  The first approach is known as the Euclidean distance measure and provides a

dissimilarity score for each team member. The score represents the difference between a

team member and the rest of the team members in terms of some demographic

characteristic (Tsui, et al., 1992). It is the square root of the summed squared differences

between an individual's value on a particular demographic characteristic and the value on that same characteristic for every other team member, divided by the total number of respondents on the team:

$$[1/n \; \Sigma \; (S_i - S_j)^2]^{1/2}$$

With this formula, individuals are assigned scores based on other members of the team such that if one was examining gender and there were two women in the group and four men, a women would get a score of zero for each other woman in the group for being similar and then a score of four for being different from each of the four men in the group. The total score of four would then be divided by seven (the total number of individuals in the group) and one would then take the square root. The closer a score is to zero, the more similar the individual is to other members of the group.

Although the Euclidian distance score has been used considerably in past research, there are also several methodological flaws associated with its use (Edwards, 2002). For example, it tends to be less reliable, can be ambiguous in that it collapses two conceptually distinct constructs into a single score, and confounds effects since it represents components collapsed together.

A second approach used in the relational demography literature, often to combat the methodological flaws associated with the Euclidian distance score measure, is the interaction term approach (Riordan & Shore, 1997). According to this approach, *individual level attitudes and behaviors = individual demographic + team demographic composition + individual demographic* team demographic composition.* The interaction term represents the construct of demographic similarity such that depending on the individual's demographic characteristic and the team composition in regards to the same

demographic characteristic, an individual will be either similar or dissimilar to other teammates. I used effects coding for the individual demographic variable of ethnicity and gender was kept categorical. I used a continuous scale to measure demographic composition. Although the interaction term approach resolves many of the problems associated with the difference score approach, it too has flaws. Specifically, interactions are harder to find, and therefore, this approach has lower power compared to the distance score measure.

Thus, given the advantages and disadvantages associated with both approaches as well as the inconsistency present within the literature, in the current study, I used both approaches, or operationalizations, of demographic dissimilarity in analyzing the data.

Climate for diversity. Team climate for diversity was measured with a 24-item scale that was specifically developed for this study (see Appendix A). This measure consisted of three subscales directed at specific demographic characteristics (a) climate for ethnic diversity, (b) climate for gender diversity, and (c) climate for organizational status or diversity in rank. All responses were made on a five-point response scale, ranging from 1= "strongly disagree" to 5 = "strongly agree." An exploratory factor analysis was conducted supporting the three factor structure. However, two items were dropped from each subscale due to low factor loadings. See Appendix A for factor loadings.

Since climate for diversity is conceptualized as a shared team level construct, following the recommendations of Klein and Kozlowski (2000), ICC(1) and ICC(2) values were calculated to justify aggregation to the team level. Based on the obtained values, only climate for ethnic diversity justified aggregation to the team level

(ICC(1)=.15; ICC(2)=.46, $p < .01$). Therefore, all cross-level interactions involving climate for diversity were conducted in terms of ethnicity only. Climate for ethnic diversity was assessed by eight items and included such statements as "The race or ethnicity of a team/work unit member does not affect how they are valued on this team/work unit" and "There appears to be racial or ethnic discrimination on this team/work unit." The alpha for this scale was .93, indicating an acceptable level of reliability.

Ethnic identification. Ethnic identification (Phinney, 1992) was measured with twelve items on a five-point response scale, ranging from 1= "strongly disagree" to 5 = "strongly agree" (see Appendix B). The scale consisted of five items measuring ethnic identity search and seven items measuring ethnic identity affirmation, belonging and commitment. Ethnic identity search included items such as "I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs." The alpha for this subscale was .77. Ethnic identity affirmation, belonging, and commitment included items such as "I have a strong sense of belonging to my own ethnic group." The alpha for this subscale was .90.

These scales were also analyzed to determine if they factored differently for ethnic minorities and Whites. That is, the measurement equivalence of these scales was assessed using a multi-group confirmatory factor analysis. Both the ethnic identity search scale ($\chi^2(14) = 11.90$, $p > .05$; $\chi^2 / (14) = .85$; *CFI*= 1.00, *RMSEA*= .00) and the ethnic identity affirmation, belonging, and commitment scale ($\chi^2(34) = 127.80$, $p < .05$; $\chi^2 / (34) = 3.76$; *CFI*= .86, *RMSEA*= .19) showed acceptable levels of measurement equivalence

for this study. However, it should be noted that although the CFI was high, the RMSEA was also high indicating that potential problems may exist with the scales.

Gender identification. Gender identification (Luhtanen and Crocker, 1992) was measured with 16 items on a seven-point response scale, ranging from 1= "strongly disagree" to 7= "strongly agree" (see Appendix C). The scale consisted of four items measuring gender identity membership, four items measuring public gender identity, four items measuring private gender identity, and four items measuring overall gender identity. Gender identity membership included such items as "I am a worthy member of my gender." The alpha for this scale was .66. Private gender identity included such items as "I feel good about the gender I belong to." The alpha for this scale was .68. Public gender identity included such items as "Overall, my gender group is considered good by others." The alpha for this scale was .79. Overall gender identity included such items as "My gender is unimportant to my sense of what kind of a person I am." The alpha for this scale was .68.

These scales were analyzed to determine if they factored differently for males and females. That is, the measurement equivalence of these scales was assessed using a multi-group confirmatory factor analysis. The gender identity membership ($\chi^2(7) = 15.68$, p $<.05$; $\chi^2 / (7) = 2.24$; *CFI*= .91, *RMSEA*= .12), private gender identity ($\chi^2(7) = 20.87$, p $<.05$; $\chi^2 / (7) = 2.98$; *CFI*= .93, *RMSEA*= .15), public gender identity ($\chi^2(7) = 18.61$, p $<.05$; $\chi^2 / (7) = 2.66$; *CFI*= .93, *RMSEA*= .14), and general gender identity ($\chi^2(7) = 21.38$, $p <.05$; $\chi^2 / (7) = 3.05$; *CFI*= .90, *RMSEA*= .15) scales showed acceptable levels of measurement equivalence for this study. However, similar to the ethnic identity scales, it

should be noted that although the CFI was high, the RMSEA was also high indicating that potential problems may exist with the scales.

Team commitment. Commitment to the team (Bishop and Scott, 2000) was measured by eight items on a five-point response scale, ranging from 1= "strongly disagree" to 5= "strongly agree" (see Appendix D). An example item is "I am proud to tell others I am part of this team." The alpha for this scale was .92.

Turnover intentions. Turnover intentions were measured by a simple two-item scale adopted from a study done by Tsui et al. (1992) (see Appendix E). A high composite score indicated a greater intention and desire to remain at one's current job. The alpha for this scale was .61.

Psychological empowerment. Psychological Empowerment in the Workplace (Spreitzer, 1995) was measured with nine items on a five-point response scale, ranging from 1= "strongly disagree" to 5= "strongly agree" (see Appendix F). Three subscales from this measure were used: meaning, competence, and impact. Meaning consisted of three items and included such items as "The work I do is very important to me." The alpha for this scale was .93. Competence consisted of three items and included such items as "I am confident about my ability to do my job." The alpha for this scale was .84. Impact consisted of three items and included such items as "I have a significant influence over what happens in my team." The alpha for this scale was .90.

Control variables. In addition to individual demographics, team size, team mean educational level, and work interdependence were used as control variables given that these are all likely to greatly influence the interactions among team members. Team size

was measured as the actual total number of employees on the team according to administrative records.

Due to issues of confidentiality, it was not possible to obtain educational levels for each individual that completed the survey and control educational level at the individual level. Therefore, I used the mean educational level of employees for each team. Team mean educational level was measured by averaging team members' educational levels. Educational level was defined as the highest degree obtained by the employee. Degrees were coded such that a high school diploma= 1, associate's degree=2, bachelor's degree=3, master's degree=4, and a doctorate=5. Work interdependence (Klein, Conn, Smith, & Sorra, 2001) measured the extent to which team members were required to work together and depend on each other to accomplish tasks. It was measured with five items on a response scale ranging from 1= "not at all" to 5= "very much" (see Appendix G). Items included statements such as "How much must team members coordinate their activities with other team members to get their jobs done?" The alpha for this scale was .91.

Data Analysis

Random coefficient modeling. The study of relational demography involves what is known as a frog pond effect. More specifically, it is called a frog pond effect because the impact of individuals' perceptions and attitudes are considered to be a function of their relation to others in the same context (Kozlowski & Klein, 2000). Thus, in order to correctly model my hypothesized effects, it was essential to take the hierarchical nature of the data, or that individuals are nested within teams, into account when conducting the statistical analyses. When non-independence or the hierarchical nature of the data is not

taken into account, one ignores the possibility that there may be differences in intercepts and slopes between groups (Bliese, 2000). Furthermore, by ignoring nested data, one increases the chance of a Type I error when testing level-2 predictors, since not separating between and within-groups variance results in an under estimate of standard errors (Bliese & Hanges, 2004).

Researchers have discussed several different ways for dealing with hierarchical data such as disaggregating data from higher levels to lower level units or aggregating lower level data to match higher level variables. However, due to disadvantages associated with both of these methods, a third option, random coefficient modeling, is recommended by most experts (Hofmann, Griffin, & Gavin, 2002). Random coefficient modeling (RCM), also commonly known as hierarchical linear modeling, overcomes previous disadvantages by separating the within and between group variance, allowing for a test of the relationship between both individual and group level variables and the dependent variable, while preserving the correct level of analysis. Furthermore, random coefficient modeling is important when examining cross-level interactions in which a variable at a higher level moderates the relationship between two variables at lower levels (Hofmann, Griffin, & Gavin, 2002).

When using RCM, one first determines if there is significant variability in intercepts across groups by estimating an unconditional means model in which no predictors are included, but the intercept is allowed to vary. This is essentially equivalent to a one-way random-effects ANOVA and indicates how much between-group variance exists in the dependent variable (Bliese, 2000). Following this, separate regression equations are estimated for each group in order to determine if there are greater

differences between groups than within groups. If intercepts and slopes significantly vary across groups, one is then able to test if some group level variable predicts differences in intercepts and differences in slopes between groups, known as a cross-level interaction (Kozlowski & Klein, 2000). In conclusion, random coefficient modeling, conducted using SAS PROC MIXED, allowed me to test my current hypotheses while maintaining the appropriate level of analysis for each variable, as well as to examine cross-level interactions.

Centering. Since this study involved the examination of frog pond effects, it was necessary to separate the within and between group variance when testing hypotheses. There are several different centering options that have been discussed in the RCM literature. Of these options, only group-mean centering allows the correct partitioning of variance and estimation of separate within and between group models (Hofmann & Gavin, 1998). Furthermore, when examining cross-level interactions, such as in the current study, only group-mean centering provides an unbiased estimate of pooled within-group slopes. Thus, based on the recommendations of Hofmann and Gavin (1998) group-mean centering was used for all of the individual level (level-1) variables.

Results

Table 1 provides the overall individual level descriptive statistics and intercorrelations for the variables contained in the present study, and Table 2 provides the overall team level descriptive statistics and intercorrelations. Table 3 provides the descriptive statistics for the outcome variables separated by gender. There were no significant differences between men and women on team commitment, t (177) = 1.27, $p >$ .05, turnover intentions, t (167) = -1.45, $p > .05$, or psychological empowerment

meaning, $t(184) = .79$, $p > .05$, competence, $t(184) = .30$, $p > .05$, or impact, $t(184) = -.20$, $p > .05$. Table 4 provides the descriptive statistics by ethnicity. There were no significant differences between ethnic groups on team commitment, $F(6, 173) = 1.12$, $p > .05$, turnover intentions, $F(6, 162) = .97$, $p > .05$, or psychological empowerment meaning, $F(6, 180) = 1.67$, $p > .05$, competence, $F(6, 180) = 1.21$, $p > .05$, or impact, $F(6, 180) = 1.94$, $p > .05$.

The random coefficient modeling results for the hypotheses are presented in Tables 5 through 17. Unfortunately, for some of these analyses the random coefficient model did not initially converge to a solution. Therefore, for all analyses that did not initially reach convergence, I reduced the convergence criterion to .2, and all non-significant control variables were removed (team mean educational level and work interdependence). While these steps enabled most of the initially non-converging analyses to converge, a small number of analyses still failed to converge. These analyses are represented by missing values in the tables. This failure to converge was most likely due to the fact that for these analyses, there were only a small number of observations that fit the interaction patterns being examined.

Hypothesis 1

Hypothesis 1 predicted that the greater the dissimilarity between an individual's gender and ethnicity and the gender and ethnicity of his or her teammates, the lower the individual's team commitment and empowerment, and the higher his or her turnover intentions. This hypothesis was tested by using only the Euclidian distance approach in order to look at overall dissimilarity without looking at the differential effects for each gender and ethnic group. Results are presented in Tables 5 and 6.

Team Commitment

Neither gender dissimilarity (b= -.20, p > .05, R^2_{within}= .00) nor ethnic dissimilarity (b= -.50, p > .05, R^2_{within} = .02) significantly predicted team commitment.

Turnover Intentions

Neither gender dissimilarity (b= .51, p > .05, R^2_{within} = .00) nor ethnic dissimilarity (b= -.22, p > .05, R^2_{within} = .00) significantly predicted turnover intentions.

Psychological Empowerment

Gender dissimilarity did not significantly predict psychological empowerment in terms of meaning (b= .22, p > .05, R^2_{within} = .00), competence (b= .04, p > .05, R^2_{within} = .00), or impact (b= .68, p > .05, R^2_{within} = .00). Similarly, ethnic dissimilarity did not significantly predict psychological empowerment in terms of meaning (b= -.02, p > .05, R^2_{within} = .00), competence (b= -.03, p > .05, R^2_{within} = .00), or impact (b= .17, p > .05, R^2_{within} = .00).

Thus, Hypothesis 1 was not supported.

<div align="center">

Hypothesis 2a

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Hypothesis 2a predicted that compared to women, men would show lower levels of team commitment and empowerment and higher turnover intentions when dissimilar to their teammates in terms of gender. Results are presented in Tables 7 and 8.

Team Commitment

Euclidian distance approach. The interaction between gender dissimilarity and gender did not significantly predict team commitment (b= -.97, p > .05, R^2_{within} = .00).

Interaction term approach. Similarly, the interaction between gender and gender composition (percent of male team members) did not significantly predict team commitment ($b = .00, p > .05, R^2_{within} = .00$).

Turnover Intentions

Euclidian distance approach. The interaction between gender dissimilarity and gender did not significantly predict turnover intentions ($b = -1.92, p > .05, R^2_{within} = .00$).

Interaction term approach. Similarly, the interaction between gender and gender composition (percent of male team members) did not significantly predict turnover intentions ($b = -.01, p > .05, R^2_{within} = .00$).

Psychological Empowerment Meaning

Euclidian distance approach. The interaction between gender dissimilarity and gender did not significantly predict psychological empowerment meaning ($b = .48, p > .05, R^2_{within} = .00$).

Interaction term approach. Similarly, the interaction between gender and gender composition (percent of male team members) did not significantly predict psychological empowerment meaning ($b = -.01, p > .05, R^2_{within} = .00$).

Psychological Empowerment Competence

Euclidian distance approach. There was a marginally significant interaction between gender and gender dissimilarity in the predicted direction for psychological empowerment competence, ($b = -1.25, p < .10, R^2_{within} = .02$). As Figure 2 illustrates, men felt more empowered in terms of competence when more similar to their teammates and less empowered when more dissimilar to their teammates. In contrast, women had

relatively consistent feelings of empowerment regardless of their gender dissimilarity to teammates.

Interaction term approach. The interaction between gender and gender composition (percent of male team members) did not significantly predict psychological empowerment competence ($b= .01$, $p > .05$, $R^2_{within} = .00$).

Psychological Empowerment Impact

Euclidian distance approach. The hypothesized model using the Euclidian distance approach did not reach convergence.

Interaction term approach. The interaction between gender and gender composition (percent of male team members) did not significantly predict psychological empowerment impact ($b= -.01$, $p > .05$, $R^2_{within} = .00$).

Thus, in sum, Hypothesis 2a was partially supported. There was a weak trend showing that, compared to females, males had lower levels of psychological empowerment competence when dissimilar to their teammates in terms of gender. This effect was significant only for the Euclidian distance approach, however. This hypothesis was not supported when using the interaction term approach.

Hypothesis 2b

Hypothesis 2b predicted that compared to ethnic minorities, Whites would show lower levels of team commitment and empowerment and higher turnover intentions when dissimilar to their teammates in terms of ethnicity. Results are presented in Tables 9 and 10.

Team Commitment

Euclidian distance approach. The interaction between ethnicity and ethnic dissimilarity did not significantly predict team commitment ([1]*b effect 1*= -2.98/ *b effect 2*= 2.26, *p* > .05, R^2_{within} = .00).

Interaction term approach. The interaction between ethnic composition (percent of White team members) and ethnicity was marginally significant in predicting team commitment when comparing African Americans to Asians and Whites (*b*=-.01, *p* < .10, R^2_{within} = .07). However, these results do not support the hypothesized interaction. As Figure 3 illustrates, Asians and Whites had fairly similar levels of team commitment regardless of the team composition or their ethnic dissimilarity to other team members. In contrast, African Americans, who had similar feelings of team commitment to both Asians and Whites when there was a low percentage of White teammates, showed much lower feelings of team commitment when there was a greater percentage of Whites, and they were more dissimilar. In other words, the more African Americans were ethnically dissimilar to their teammates, the lower their levels of team commitment.

Turnover Intentions

Euclidian distance approach. The interaction between ethnic dissimilarity and ethnicity did not significantly predict turnover intentions (*b effect 1*= 1.53/ *b effect 2*= 1.00, *p* > .05, R^2_{within} = .02).

Interaction term approach. Similarly, the interaction between ethnicity and ethnic composition (percent of White team members) did not significantly predict turnover intentions (*b effect 1*= -.00/ *b effect 2*= .01, *p* > .05, R^2_{within} = .00).

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[1] Ethnicity was effects coded. Therefore, *b effect 1* represents the first comparison of African Americans to Asians and Whites and *b effect 2* represents the comparison of Asians to African Americans and Whites.

Psychological Empowerment Meaning

  Euclidian distance approach. The interaction between ethnic dissimilarity and ethnicity did not significantly predict psychological empowerment meaning (*b effect 1*= -.86/ *b effect 2*= 1.10, *p* > .05, R^2_{within} = .00).

  Interaction term approach. Similarly, the interaction between ethnicity and ethnic composition (percent of White team members) did not significantly predict psychological empowerment meaning (*b effect 1*= -.01/ *b effect 2*= .00, *p* > .05, R^2_{within} = .06[2]).

Psychological Empowerment Competence

  Euclidian distance approach. The interaction between ethnic dissimilarity and ethnicity did not significantly predict psychological empowerment competence (*b effect 1*= 1.26/ *b effect 2*= -.26, *p* > .05, R^2_{within} = .00).

  Interaction term approach. Similarly, the interaction between ethnicity and ethnic composition (percent of White team members) did not significantly predict psychological empowerment competence (*b effect 1*= .00/ *b effect 2*= .00, *p* > .05, R^2_{within} = .00).

Psychological Empowerment Impact

  Euclidian distance approach. The interaction between ethnic dissimilarity and ethnicity did not significantly predicted psychological empowerment impact (*b effect 1*= -1.91/ *b effect 2*= -.54, *p* > .05, R^2_{within} = .02).

  Interaction term approach. Similarly, the interaction between ethnicity and ethnic composition (percent of White team members) did not significantly predict psychological empowerment impact (*b effect 1*= -.01/ *b effect 2*= .01, *p* > .05, R^2_{within} = .09).

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[2] This is an inflated estimate that represents the total R-squared within instead of the change in R-squared within. The inflated estimate is because the analysis without the interaction term did not reach convergence.

In sum, although there was a significant interaction for predicting team commitment using the interaction term approach, the results were inconsistent with the original hypothesized pattern of interaction. Instead, African Americans showed the most negative effects of being dissimilar to their teammates. Thus, overall, Hypothesis 2b was not supported using the Euclidian distance approach or the interaction term approach.

Hypothesis 3

Hypothesis 3 predicted that the level of gender or ethnic identification would moderate the relationship between gender and ethnic dissimilarity and the proposed outcomes. More specifically, when in the numerical minority in terms of gender or ethnicity, an individual with high gender or ethnic identification would show lower levels of team commitment and empowerment and greater turnover intentions when dissimilar to his or her teammates than would an individual with weak gender or ethnic identification. The gender identification measure has four subscales, and the ethnic identification measure has two subscales, which were all analyzed separately. Therefore, given the large number of analyses for this hypothesis, only significant results are presented here and results with any remaining subscales are presented in Tables 11 through 14.

Team Commitment (Gender)

Euclidian distance approach. The interactions between gender dissimilarity and gender identification did not significantly predict team commitment (see Table 11).

Interaction term approach. Similarly, the interactions between gender, gender identification, and gender composition (percent of male team members) did not significantly predict team commitment (see Table 12).

Turnover Intentions (Gender)

   Euclidian distance approach. The interactions between gender dissimilarity and
gender identification did not significantly predict turnover intentions (see Table 11).

   Interaction term approach. Similarly, the interactions between gender, gender
identification, and gender composition (percent of male team members) did not
significantly predict turnover intentions (see Table 12).

Psychological Empowerment Meaning (Gender)

   Euclidian distance approach. The interaction between gender dissimilarity and
general gender identity was marginally significant in predicting psychological
empowerment meaning (b= -.33, $p < .10$, R^2_{within} = .01). However, as Figure 4 illustrates,
the data are inconsistent with the original hypothesized results. Individuals with low and
high gender identification showed similar levels of empowerment when dissimilar to
their teammates in terms of gender. Furthermore, individuals with low gender
identification felt more empowered when more dissimilar to their teammates in terms of
gender than when more similar to their teammates. In contrast, individuals with high
gender identification showed relatively similar feelings of empowerment, with a very
minimal decrease, regardless of gender dissimilarity. The remaining interactions between
gender dissimilarity and the other gender identification subscales did not significantly
predict psychological empowerment meaning (see Table 11).

   Interaction term approach. None of the interactions between gender, gender
identification, and gender composition (percent of male team members) significantly
predicted psychological empowerment meaning (see Table 12).

Psychological Empowerment Competence (Gender)

 Euclidian distance approach. The interaction between gender dissimilarity and private gender identity (b= -.35, p < .10, R^2_{within} = .00) and the interaction between gender dissimilarity and public gender identity (b= -.31, p < .10, R^2_{within} = .01) were marginally significant in predicting psychological empowerment competence. As Figure 5 illustrates, these interactions provide some support for Hypothesis 3, but the overall results are still inconsistent with the original predictions. Consist with Hypothesis 3, the interaction with private gender identity shows that individuals with high gender identification felt less empowered when more dissimilar to their teammates than when more similar to their teammates. However, they still have higher levels of empowerment compared to individuals with low gender identification when dissimilar in terms of gender. Furthermore, similar to the significant interaction predicting psychological empowerment meaning, again, individuals with low gender identification felt more empowered when dissimilar to their teammates in terms of gender than when similar to their teammates. The interaction pattern with public gender identity was similar to that shown in Figure 5, predicting psychological empowerment meaning. The remaining interactions between gender dissimilarity and the other gender identification subscales did not significantly predict psychological empowerment competence (see Table 11).

 Interaction term approach. The interactions between gender, public gender identification, and gender composition (percent of male team members) (b= .01, p < .10, R^2_{within} = .01), gender, private gender identification, and gender composition (percent of

male team members) ($b = .01$, $p < .05$, $R^2_{within} = .09^3$), and gender, general gender

identification, and gender composition (percent of male team members) ($b = .01$, $p < .10$,

$R^2_{within} = .00$) significantly predicted psychological empowerment competence. However,

although the interactions were significant, a closer examination of the data revealed that

there were not enough groups that were a majority male and varied in terms of gender

identification to accurately interpret the interaction patterns. Thus, due to the

suspiciousness of the interactions, they were not interpreted. Only the remaining

interaction between gender, gender member identification, and gender composition

(percent of male team members) did not significantly predict psychological

empowerment competence ($b = .01$, $p > .05$, $R^2_{within} = .02$).

Psychological Empowerment Impact (Gender)

    Euclidian distance approach. The interactions between gender dissimilarity and

gender identification did not significantly predict psychological empowerment impact

(see Table 11).

    Interaction term approach. Similarly, the interactions between gender, gender

identification, and gender composition (percent of male team members) did not

significantly predict psychological empowerment impact (see Table 12).

Team Commitment (Ethnicity)

    Euclidian distance approach. The interactions between ethnic dissimilarity and

ethnic identification did not significantly predict team commitment (see Table 13).

    Interaction term approach. The interaction between ethnicity, ethnic

identification affirmation, belonging, and commitment, and ethnic composition (percent

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[3] This is an inflated estimate that represents the total R-squared within instead of the change in R-squared within. The inflated estimate is because the analysis without the interaction term did not reach convergence.

of White team members) significantly predicted team commitment when comparing both African Americans to Asians and Whites (b=-.04, $p < .05$, R^2_{within} = .03) and when comparing Asians to both African Americans and Whites (b=.03, $p < .05$, R^2_{within} = .03). However, although the interactions were significant, a closer examination of the data revealed that there were not enough groups that were a majority African American or Asian and varied in terms of ethnic identification to accurately interpret the interaction patterns. Thus, due to the suspiciousness of the interactions, they were not interpreted. There was no significant interaction with the second ethnic identification subscale, ethnic identification search, (*b effect 1*= -.01/ *b effect 2*= .02, $p > .05$, R^2_{within} = .02).

Turnover Intentions (Ethnicity)

    Euclidian distance approach. The interactions between ethnic dissimilarity and ethnic identification did not significantly predict turnover intentions (see Table 13).

    Interaction term approach. The interaction between ethnicity, ethnic identity search, and ethnic composition (percent of White team members) significantly predicted turnover intentions when comparing both African Americans to Asians and Whites (b=-.03, p < .05, R^2_{within} = .05) and when comparing Asians to both African Americans and Whites (b=.05, p < .05, R^2_{within} = .05). However, again, although the interactions were significant, a closer examination of the data revealed that there were not enough groups that were a majority African American or Asian and varied in terms of ethnic identification to accurately interpret the interaction patterns. Thus, due to the suspiciousness of the interactions, they were not interpreted. There was no significant interaction with the second subscale, ethnic identity affirmation, belonging, and commitment, (*b effect 1*= -.03/ *b effect 2*= .03, $p > .05$, R^2_{within} = .01).

Psychological Empowerment Meaning (Ethnicity)

   Euclidian distance approach. Neither the interaction between ethnic identity search and ethnic dissimilarity ($b= .26, p > .05, R^2_{within} = .00$) nor the interaction between ethnic identity affirmation, belonging, and commitment and ethnic dissimilarity ($b= -.14, p > .05, R^2_{within} = .00$) significantly predicted psychological empowerment meaning.

   Interaction term approach. Both models using the interaction term approach to predict psychological empowerment meaning failed to reach convergence.

Psychological Empowerment Competence (Ethnicity)

   Euclidian distance approach. Neither the interaction between ethnic identity search and ethnic dissimilarity ($b= .06, p > .05, R^2_{within} = .00$) nor the interaction between ethnic identity affirmation, belonging, and commitment and ethnic dissimilarity ($b= -.10, p > .05, R^2_{within} = .00$) significantly predicted psychological empowerment competence.

   Interaction term approach. Again, both models using the interaction term approach to predict psychological empowerment competence failed to reach convergence.

Psychological Empowerment Impact (Ethnicity)

   Euclidian distance approach. The interaction between ethnic identity affirmation, belonging, and commitment and ethnic dissimilarity was marginally significant in predicting psychological empowerment impact ($b= -.79, p < .10, R^2_{within} = .00$). However, the results are opposite of those hypothesized. As Figure 6 illustrates, individuals with low ethnic identification felt more empowered when more ethnically dissimilar to their teammates compared to when ethnically similar. In contrast, individuals with high ethnic identification had relatively similar feelings of empowerment regardless of their ethnic

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dissimilarity to teammates. The interaction between ethnic identity search and ethnic

dissimilarity did not significantly predict psychological empowerment impact (b = -.22, p

> .05, R^2_{within} = .12[4]).

Interaction term approach. The interaction between ethnicity, ethnic identity

search, and ethnic composition (percent of White team members) did not significantly

predict psychological empowerment impact (*b effect 1*= -.02/ *b effect2*= .01, p > .05,

R^2_{within} = .01), and the model using the interaction between ethnicity, ethnic identity

affirmation, belonging, and commitment, and ethnic composition (percent of White team

members) failed to reach convergence.

In sum, when using the Euclidian distance approach for gender dissimilarity,

although there were significant interactions when predicting psychological empowerment

meaning and competence, the overall results were inconsistent with the hypothesized

patterns of interaction and failed to provide support for Hypothesis 3. Similarly, although

there was a significant interaction using the Euclidian distance approach for ethnic

dissimilarity when predicting psychological empowerment impact, the results were

inconsistent with the hypothesized patterns of interaction and failed to provide support

for Hypothesis 3.

Although there were significant interactions using the interaction term approach

in predicting psychological empowerment competence for gender dissimilarity and

predicting team commitment and turnover intentions for ethnic dissimilarity, given the

problems with the sample size, the interactions were not interpreted, and thus, Hypothesis

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[4] This is an inflated estimate that represents the total R-squared within instead of the change in R-squared within. The inflated estimate is because the analysis without the interaction term did not reach convergence.

3 was not supported for gender or ethnic dissimilarity using the interaction term approach.

<div align="center">*Hypothesis 4a*</div>

Hypothesis 4a predicted that team climate for diversity would moderate the relationship between demographic dissimilarity and the individual level outcomes of team commitment, empowerment, and turnover intentions, such that the stronger a positive team climate for diversity, the less negative the impact of demographic dissimilarity on the proposed individual level outcomes. Because only ethnic climate for diversity was justified to aggregate to the team level, this hypothesis was not tested for gender dissimilarity. Results are presented in Tables 15 and 16.

Team Commitment

Euclidian distance approach. The interaction between ethnic dissimilarity and team climate for ethnic diversity did not significantly predict team commitment (b= .64, p > .05, R^2_{within} = .00).

Interaction term approach. The interaction between ethnicity, team climate for ethnic diversity, and ethnic composition (percent of White team members) significantly predicted team commitment when comparing African Americans to both Asians and Whites (b=.07, p < .05, R^2_{within} = .06) and when comparing Asians to both Whites and African Americans (b=-.08, p < .05, R^2_{within} = .06). However, as in previous analyses, due to an insufficient sample size, the interactions are suspicious and were not interpreted.

Turnover Intentions

The models for turnover intentions failed to reach convergence using both the Euclidian distance and interaction term approaches.

Psychological Empowerment Meaning

    Euclidian distance approach. The interaction between ethnic dissimilarity and team climate for ethnic diversity did not significantly predict psychological empowerment meaning (b= -.68, $p > .05$, R^2_{within} = .00).

    Interaction term approach. Similarly, the interaction between ethnicity, team climate for ethnic diversity, and ethnic composition (percent of White team members) did not significantly predict psychological empowerment meaning (*b effect 1*= -.02/ *b effect 2*= -.02, $p > .05$, R^2_{within} = .02).

Psychological Empowerment Competence

    Euclidian distance approach. The interaction between ethnic dissimilarity and team climate for ethnic diversity significantly predicted psychological empowerment competence, (b= -1.61, $p < .01$, R^2_{within} = .00). As Figure 7 illustrates, supporting this hypothesis, when there was a high climate for ethnic diversity, individuals had relatively similar feelings of psychological empowerment regardless of their ethnic dissimilarity. However, unexpectedly, when there was a low climate for ethnic diversity, individuals actually felt more empowered when they were more ethnically dissimilar to their teammates.

    Interaction term approach. The model for psychological empowerment competence using the interaction term approach failed to reach convergence.

Psychological Empowerment Impact

    Euclidian distance approach. The interaction between ethnic dissimilarity and team climate for ethnic diversity did not significantly predict psychological empowerment impact (b= -1.62, $p > .05$, R^2_{within} = .00).

Interaction term approach. Similarly, the interaction between ethnicity, team climate for ethnic diversity, and ethnic composition (percent of White team members) did not significantly predict psychological empowerment impact (*b effect 1*= .03/ b effect 2= -.05, $p > .05$, R^2_{within} = .03).

In sum, Hypothesis 4a was partially supported using the Euclidian distance approach when predicting psychological empowerment competence. However, it was not supported using the interaction term approach.

<div align="center">

Hypothesis 4b

</div>

Hypothesis 4b predicted that there would be a three-way interaction between gender/ethnic identification, climate for diversity, and demographic dissimilarity, such that the higher the gender or ethnic identification, the greater the impact of a positive climate for diversity on team commitment, empowerment, and turnover intentions. Again, this hypothesis was only tested in terms of ethnic dissimilarity because only climate for ethnic diversity was able to be aggregated to the team level. In addition, only the Euclidian distance approach was used given that using the interaction term approach would require a four-way interaction. Results are presented in Table 17.

Team Commitment

The interaction between ethnic identification, team climate for ethnic diversity, and ethnic dissimilarity did not significantly predict team commitment using either ethnic identity search (*b*= -.80, $p > .05$, R^2_{within} = .00) or ethnic identity affirmation, belonging, and commitment (*b*= -.21, $p > .05$, R^2_{within} = .00).

Turnover Intentions.

The interaction between ethnic identity search, team climate for ethnic diversity, and ethnic dissimilarity did not significantly predict turnover intentions (b= -1.41, $p >$ .05, R^2_{within} = .00). The interaction between ethnic identity affirmation, belonging, and commitment, team climate for ethnic diversity, and ethnic dissimilarity failed to reach convergence.

Psychological Empowerment Meaning

The interaction between ethnic identity search, team climate for ethnic diversity, and ethnic dissimilarity did not significantly predict psychological empowerment meaning (b= -1.05, $p >$ .05, R^2_{within} = .02). However, the interaction between ethnic identity affirmation, belonging, and commitment, team climate for ethnic diversity, and ethnic dissimilarity significantly predicted psychological empowerment meaning (b= -2.99, $p <$ .05, R^2_{within} = .02). As Figures 8 and 9 show, the results did not provide support for the above hypothesis. Although individuals with high ethnic identification were less empowered when a high or positive climate for ethnic diversity exists, individuals with low ethnic identification were actually more empowered when more dissimilar to their teammates in a high or positive climate for ethnic diversity. In contrast, when a low or negative climate for ethnic diversity exists, individuals with high ethnic identification were more empowered when more dissimilar to their teammates, while individuals with low ethnic identification seemed to have relatively similar feelings of empowerment or were slightly less empowered when more dissimilar to their teammates.

Psychological Empowerment Competence.

The interaction between ethnic identity search, ethnic dissimilarity, and climate for ethnic diversity significantly predicted psychological empowerment competence (b=1.39, $p < .10$, R^2_{within} = .01). However, again, this interaction was inconsistent with the proposed hypothesis. As Figures 10 and 11 show, when a high climate for ethnic diversity exists, individuals with both low and high ethnic identification felt less empowered when ethnically dissimilar to teammates compared to individuals that were more ethnically similar to teammates. Furthermore, the strength of this relationship was similar for individuals regardless of the degree of their ethnic identification. In contrast, when a low or negative climate for ethnic diversity exists, individuals with high ethnic identification felt more empowered when more dissimilar to teammates compared to when more similar to teammates. Individuals with low ethnic identification had similar or slightly higher feelings of empowerment when more dissimilar to teammates compared to when more similar to teammates. The interaction between ethnic identity affirmation, belonging, and commitment, team climate for ethnic diversity, and ethnic dissimilarity did not significantly predict psychological empowerment competence (b= .21, $p < .05$, R^2_{within} = .00).

Psychological Empowerment Impact

Both the interaction between ethnic identity search, team climate for ethnic diversity, and ethnic dissimilarity (b=-2.69, $p < .05$, R^2_{within} = .05) and the interaction between ethnic identity affirmation, belonging, and commitment, team climate for ethnic diversity, and ethnic dissimilarity (b=-4.11, $p < .05$, R^2_{within} = .07) significantly predicted psychological empowerment impact. The interaction patterns for both of these are similar

to the interaction predicting psychological empowerment meaning (see Figures 8 and 9).

Thus, these results did not provide support for the above hypothesis. Again, although

individuals with high ethnic identification were less empowered when a high or positive

climate for ethnic diversity exists, individuals with low ethnic identification were actually

more empowered when more dissimilar to their teammates in a high or positive climate

for ethnic diversity. In contrast, when a low or negative climate for ethnic diversity

exists, individuals with high ethnic identification were more empowered when more

dissimilar to their teammates, while individuals with low ethnic identification seemed to

have relatively similar feelings of empowerment.

In sum, although there were significant interactions predicting psychological

empowerment meaning, competence, and impact, the overall results were inconsistent

with the hypothesized patterns of interaction. Thus, overall, Hypothesis 4b was not

supported

Discussion

Overall, the results provide weak support at best for relational demography

theory, which proposes that individuals are affected by being demographically dissimilar

to their teammates. In support of previous research (e.g. Chatman & O'Reilly, 2004;

Chattopadhyay, 1999; Tsui et al., 1992), it was not sufficient to merely examine

dissimilarity. Men and women, ethnic minorities and Whites, reacted differently to being

dissimilar to teammates. More specifically, there was some support to indicate that men

and African Americans seemed to be the most influenced by demographic dissimilarity,

showing more negative outcomes when dissimilar to their teammates. Interestingly, these

findings for ethnicity are in contrast to other relational demography findings, which tend

to indicate that it is usually White individuals that are the most adversely affected by being dissimilar to their teammates (Chattopadhyay, 1999; Tsui et al., 1992). However, given the weak effect sizes and limited results across outcomes, future research should continue to examine these differences in other organizations.

In terms of the role of gender and ethnic identification, an attempt to explore more of the psychological processes that may be involved in this phenomenon, I obtained some rather unexpected results. First, when using the Euclidian distance measure, overall, data showed that individuals with high ethnic and gender identification were relatively unaffected by dissimilarity, specifically in terms of empowerment, with only one of the three significant outcomes for empowerment, empowerment in terms of competence, indicating that individuals with high gender identification felt less empowered when dissimilar compared to when similar to teammates. In contrast, individuals with low ethnic and gender identification actually showed more positive effects, specifically in terms of empowerment, when dissimilar to their teammates.

Given that the significant effects were in regards to empowerment, perhaps individuals with low ethnic and gender identification assume that they are a member of a more diverse group because they are competent, have impact on others, etc. In other words, their gender or ethnicity is not a salient attribute or part of their identity. Therefore, when they are a minority in terms of gender or ethnicity, they do not focus on how they are dissimilar to others in terms of that characteristic or wonder if they are in that group as a "token" individual. Instead, they may assume that it must be because they are qualified and considered an asset, emerging as high feelings of empowerment. Furthermore, individuals with high ethnic and gender identification may have shown little

difference in feelings of empowerment based on their dissimilarity to team members in that if that characteristic is a positive part of their identity, although it would increase the salience of their dissimilarity to others, they would also not feel threatened by that dissimilarity. In other words, since they do not view that part of their identity as a weakness, but as an asset, being dissimilar to others does not have as great an impact on their feelings of empowerment. It should also be noted, however, that although reasonable for the current study, these identity scales may be somewhat problematic as indicated by the multi-group confirmatory factor analyses and could be improved in future studies.

Finally, there is some evidence that organizational and team climates may be important in combating some of the negative effects demographic differences may produce. Specifically, I found that a high or positive climate for ethnic diversity reduced the negative consequences produced for individuals that often find themselves in the demographic minority. However, contrary to predictions, when a low or negative climate for ethnic diversity existed, individuals seemed to feel more empowered when ethnically dissimilar to teammates compared to when ethnically similar. One possibility for this finding is that only those individuals with high feelings of empowerment (competence) are able to exist in a more negative climate surrounding ethnicity, especially when they are dissimilar to teammates.

Similarly, climate for ethnic diversity produced some unexpected findings when examining its interaction with ethnic identification, especially for the outcomes of empowerment. Individuals with high ethnic identification seemed to more empowered when more ethnically dissimilar to teammates when a low are negative climate for

diversity existed, but were less empowered when more ethnically dissimilar to teammates when a high or positive climate for diversity existed. Again, it is possible that when a positive climate for diversity exists, individuals with high ethnic identification react as predicted, by feeling less empowered when they are more dissimilar. In other words, because they have high ethnic identification, their dissimilarity to others is heightened to an even greater extent, resulting in more negative consequences. In contrast, when a low or negative climate for diversity exists, individuals with high ethnic identification feel very proud and secure in their ethnicity, and therefore, may cognitively counteract the negative climate for ethnicity by increasing their feelings of empowerment and right to be a member of the team when they find themselves in the demographic numerical minority. Similarly, perhaps only those individuals that are secure in their ethnic identification and already have higher feelings of empowerment are the only individuals able to exist in this more negative environment.

In sum, although the hypotheses were not fully supported and effect sizes were rather weak, the obtained results provide some support for the idea that gender and ethnic dissimilarity can have an important impact on employees in the work place. In addition, data suggest that important moderators may exist, such as an individual's identification with that particular characteristic and the climate in which an individual works.

Interestingly, although turnover is often studied as an outcome in relational demography research (e.g. Chatman & O'Reilly, 2004; Elvira & Cohen, 2001; O'Reilly et al., 1989; Tsui et al., 1992), the majority of results in this study were found for the outcomes of team commitment and especially psychological empowerment, not turnover. One possibility for this lack of results may be that individuals chose to express their

dissatisfaction and feelings of isolation through other means, such as absenteeism, lateness, or other related work withdrawal behaviors that were not measured in this study. Furthermore, 37% of employees could be tenured. Therefore, this type of job security may have attenuated negative feelings being manifested in a desire to leave the organization. However, given relatively low power due to a small sample size in the study, it is also possible that more significant findings occurred for the other outcomes given their more proximal nature to demographic dissimilarity. Turnover intentions may instead be a final cause mediated by other variables.

Finally, one of the strengths of this study is that it examined both methods of operationalizing demographic dissimilarity, the Euclidian distance measure and the interaction term approach. For those hypotheses that were analyzed with both approaches, the number of significant results was fairly equivalent. However, interestingly, the Euclidian distance approach found the most significant results for predicting psychological empowerment, especially psychological empowerment competence, when examined across hypotheses. In contrast, the interaction term approach found the most significant results for predicting team commitment when examined across hypotheses. Thus, these approaches tend to obtain somewhat different results. However, it must be remembered that although they are both examining dissimilarity, they do so in a different way, with the Euclidian distance approach examining overall dissimilarity, while the interaction term approach always takes into account the specific demographic group being examined.

Given past research and the results of this study indicating that men and women, ethnic minorities and Whites react differently to being demographically dissimilar to their

teammates (e.g. Chatman & O'Reilly, 2004; Chattopadhyay, 1999; Tsui et al., 1992), it is

clear that examining these differences in future research is critical. Thus, for hypotheses

that do not make specific predictions for different demographic groups, some of the more

interesting results can be lost when only using the Euclidian distance measure. However,

although the Euclidian distance measure does not incorporate demographic group

differences as part of the measure, which has been a past criticism (Riordan, 1997), it is

easy to correct for this by examining the interaction between the distance score and the

individual demographic characteristic. Post-hoc analyses including individual

demographics in the interactions using the Euclidian distance measure were conducted to

see how they would compare with the results of the interaction term approach. However,

overall, these two approaches, even when made more similar, tended to find significant

results for different outcome variables depending on the hypothesis.

In sum, this suggests that future researchers should take the time to carefully

consider which statistical operation is the most appropriate given theory and the goals of

the study. In other words, if one is interested in focusing more on team processes and

composition in relation to individuals, the interaction term approach may be more

appropriate. In contrast, if one is interested in focusing more at the individual level and

exploring how dissimilarity to others will affect individuals, the Euclidian distance

approach may be more appropriate. In addition, it should be noted that the majority of the

interactions using the interaction term approach were unable to be interpreted due to a

small number of observations fitting the patterns being examined. Therefore, the optimal

approach may also be influenced by the particular sample being used, especially when

looking at more complex interactions. In order to take advantage of the interaction term

approach a large enough number of groups need to fit the interaction patterns being analyzed.

Limitations

The organization used in this study provided a sample that was both ethnically and gender diverse enough to provide teams that had men and women, ethnic minorities and Whites in the majority. However, actual team size, the number of teams, and the number of teams with different demographic compositions fitting some of the more complex interaction patterns were relatively low and may not have provided enough power to detect significant effects for many of the hypotheses. In addition, atypical to most organizations, the majority of employees were women. Therefore, although this organization provided an excellent sample in terms of diverse teams, the different gender composition of the organization may have created a unique culture surrounding gender differences and women in positions of status, potentially influencing the current results. Therefore, the generalizability of these findings to other organizations should be further explored.

In addition, it may be that perceptions of similarity and dissimilarity are more important than objective demographic characteristics. If an individual does not actually perceive him or herself as being different, then there are likely to be few consequences. Based on self-categorization and social identity theory, individuals use group membership as a way to maintain their self-esteem and make categorizations of in-group and out-group membership based upon attributes important to their identity. Therefore, it is possible that demographic characteristics such as gender and ethnicity are not the most salient attributes with which individuals on these teams identify. Instead, there may be

other characteristics such as particular attitudes or values that individuals use to assess their similarity to other team members. For example, research by Harrison, Price, and Bell (1998), found that effects of surface-level characteristics such as demographics weakened over time; while the effects of deep-level characteristics were strengthened the more team members were able to engage in meaningful interactions.

Finally, although organizational representatives indicated that employees were arranged in a team structure and work interdependence was used as a control variable, it is possible that these groups were not organized in a team structure sufficient enough for the comparison processes involved in assessing dissimilarity to take place. For example, one limitation is that work interdependence data were collected from supervisors only and not aggregated based on individual team member perceptions. Therefore, it is possible that the lack of significance for some hypotheses is due to the fact that individuals may not have been organized into true teams and thus, who and if individuals compare themselves to would certainly influence and possibly weaken the current results.

Conclusions and Implications for Future Research and Practice

Overall, these results provide weak support for relational demography theory and for recent research which has emphasized the need to look at this process in terms of different demographic groups and the potential "asymmetric" effects that may exist. However, given the limitations of the study, those findings that were significant suggest the need for future research to continue to explore relational demography. For example, given the small number of studies that have examined ethnic dissimilarity and given the inconsistent results with previous studies regarding ethnicity differences, future research should especially continue to explore ethnic dissimilarity. Additionally, this study only

included White, Asian, and African American categories for ethnicity due to sample limitations. However, other ethnic groups, such as Hispanics, are also continuing to increase in number in today's workforce. Therefore, it would be beneficial for future research to examine ethnic dissimilarity with even finer grained categories of ethnicity.

Additionally, recent work looking at faultlines, or how individuals form subgroups based on the compositional dynamics of the group (Lau & Murnighan, 1996), would suggest that examining such demographic characteristics as ethnicity and gender separately may miss important distinctions. In other words, being the only African American woman on a team of White males is more important than just being a female on a team of males. Therefore, future research in relational demography should continue to think about how other characteristics or combinations of characteristics may be more important in this process.

Finally, as this study indicated, both team and individual difference variables can play an important role in heightening or attenuating the experiences and consequences that employees face when they are dissimilar to other team members. For example, creating a positive team and organizational climate for diversity is one way for managers to attenuate potential negative consequences that may exist for employees in diverse organizations. Therefore, future research examining additional moderators of this phenomenon is essential in providing theoretical and practical insight into workplace experiences and how managers and team leaders can deal with the challenges of having an ever increasingly diverse workforce. Ultimately, through gaining more knowledge concerning how individuals experience the growing diversity of current organizations and how these experiences may differ for each demographic group, managers will be able to

better respond to individual needs and potential challenges to overall effective team and

organizational functioning.

Table 1

Individual Level Descriptive Statistics and Correlations

	M	SD	1	2	3	4	5	6	7	8	9	10	11
1. Team commitment	3.63	.82											
2. Turnover intentions	3.57	1.09	.29**										
3. Empowerment (meaning)	4.2	.79	.41**	.20*									
4. Empowerment (competence)	4.34	.62	.18*	.12	.20**								
5. Empowerment (impact)	3.59	.97	.54**	.34*	.52**	.34**							
6. Ethnic climate for diversity	4.36	.40	.13	-.14	-.08	-.04	.02						
7. Ethnic identity (identity search)	2.79	.83	-.11	-.01	.02	-.02	-.08	-.10					
8. Ethnic identity (affirmation, belonging, and commitment)	3.60	.76	-.14	.04	-.01	.15*	-.04	-.08	.63**				
9. Gender identity (membership)	5.71	.95	.11	.11	.10	.39**	.09	.12	.14	.38**			
10. Gender identity (private)	6.10	1.05	.09	.13	.15*	.25**	.10	.15	-.04	.30**	.68**		
11. Gender identity (public)	4.92	1.09	.09	.17*	.09	.12	.19*	-.04	-.04	.17*	.32**	.38**	
12. Gender identity (general identity)	4.47	1.32	.23**	.02	.10	-.04	.02	-.00	.14	.09	.33**	.32**	.09
13. Work interdependence	3.44	.75	.13	-.06	-.01	.14	.10	-.03	.17*	.10	.09	-.02	-.07
14. Mean team educational level	3.23	.68	-.11	-.06	-.04	-.17*	-.12	.41**	-.20*	-.14	.03	.17*	.09
15. Team size	7.77	3.5	-.09	-.02	-.19*	.15	-.06	-.01	.09	.05	.08	.07	.05
16. Ethnic dissimilarity	.55	.26	-.16*	-.04	-.10	-.17*	-.01	-.34**	.28**	.21**	-.05	-.10	-.03
17. Gender dissimilarity	.53	.26	-.13	.12	-.05	.00	.05	-.13	-.03	-.03	-.11	-.03	.01
18. Percent White	65.44	20.95	-.09	.05	-.06	-.12	-.10	.46**	-.32**	-.16**	.10	.21*	.14
19. Percent male	33.28	22.53	-.06	-.23**	.06	-.12	-.14	.00	.07	.07	.04	-.05	.01
20. Gender	.71	.45	-.10	.11	-.06	-.02	.02	-.09	.01	-.01	-.30**	-.18*	-.02
21. Ethnicity	.72	.45	.08	-.05	.07	-.14	.02	.28**	-.32**	-.25**	-.07	.03	-.05

	12	13	14	15	16	17	18	19	20				
1. Team commitment													
2. Intent to stay													
3. Empowerment (meaning)													
4. Empowerment (competence)													
5. Empowerment (impact)													
6. Ethnic climate for diversity													
7. Ethnic identity (identity search)													
8. Ethnic identity (affirmation, belonging, and commitment)													
9. Gender identity (membership)													
10. Gender identity (private)													
11. Gender identity (public)													
12. Gender identity (general identity)													
13. Work interdependence	.10												
14. Mean team educational level	-.02	-.51**											
15. Team size	.07	.07	-.51**										
16. Ethnic dissimilarity	-.08	.13	-.37**	.23**									
17. Gender dissimilarity	-.10	-.36**	.16*	.46**	.01								
18. Percent White	-.00	-.17	.52**	.08	-.74**	.08							
19. Percent male	.01	.21**	.01	.-35**	.02	-.01							
20. Gender	-.12	-.11	-.06	.11	.05	.46**	-.10	.46**					
21. Ethnicity	.02	-.14	.32**	.06	-.52**	.12	.46**	.05	-.04				

Note. Gender was coded as 1= Female and 0=Male; Ethnicity was coded as 1=White, 0=Ethnic minority.

[†] *p*<.10. **p*<.05. ***p*<.01.

Table 2

Team Level Descriptive Statistics and Correlations

	M	SD	1	2	3	4	5
1. Ethnic climate for diversity	4.35	.50					
2. Work interdependence	3.37	.80	-.11				
3 Mean team educational level	3.18	.76	.43**	-.53**			
4. Team size	3.48	3.48	.00	-.04	.24		
5. Percent White	63.54	27.15	.50**	-.15	.50**	.10	
6. Percent male	32.67	24.07	-.07	-.28	.05	.36*	-.02

† *p*<.10. **p*<.05. ***p*<.01.

Table 3

Descriptive Statistics Based on Gender

Predictor and Gender	Mean	SD
Ethnic identity (identity search)		
Female	2.78	.88
Male	2.80	.69
Ethnic identity (affirmation, belonging, and commitment)		
Female	3.62	.78
Male	3.60	.73
Gender identity (membership)		
Female	5.91	.84
Male	5.29	1.02
Gender identity (private)		
Female	6.24	.94
Male	5.86	1.12
Gender identity (public)		
Female	4.95	1.10
Male	4.90	1.09
Gender identity (general identity)		
Female	4.60	1.32
Male	4.25	1.25
Ethnic climate for diversity		
Female	4.37	.39
Male	4.29	.45
Team commitment		
Female	3.70	.85
Male	3.54	.68
Turnover intentions		
Female	3.53	1.13
Male	3.79	.96
Psychological empowerment meaning		
Female	4.25	.81
Male	4.15	.67
Psychological empowerment competence		
Female	4.34	.64
Male	4.31	.59
Psychological empowerment impact		
Female	3.62	.97
Male	3.65	.85

Table 4

Descriptive Statistics Based on Ethnicity

Predictor and Ethnicity	Mean	SD
Ethnic identity (identity search)		
White	2.60	.76
African American	3.6	.96
Asian	3.13	.75
Ethnic identity (affirmation, belonging, and commitment)		
White	3.45	.69
African American	4.21	.93
Asian	3.70	.79
Gender identity (membership)		
White	5.64	.94
African American	5.99	.88
Asian	5.39	1.00
Gender identity (private)		
White	6.11	1.03
African American	6.01	1.08
Asian	5.88	1.06
Gender identity (public)		
White	4.87	1.06
African American	4.67	1.44
Asian	5.31	1.01
Gender identity (general identity)		
White	4.45	1.39
African American	4.18	1.28
Asian	4.71	.98
Ethnic climate for diversity		
White	4.41	.36
African American	4.23	.41
Asian	4.08	.40
Team commitment		
White	3.68	.80
African American	3.32	.97
Asian	3.81	.79
Turnover intentions		
White	3.55	1.09
African American	3.17	.99
Asian	3.83	1.12
Psychological empowerment meaning		
White	4.22	.73
African American	3.78	1.15
Asian	4.38	.60

Psychological empowerment competence		
White	4.27	.65
African American	4.45	.43
Asian	4.41	.56
Psychological empowerment impact		
White	3.64	.98
African American	3.42	.96
Asian	3.71	.69

Table 5

Euclidian Distance Random Coefficient Regression Model for Hypothesis 1 and Gender Dissimilarity

Predictor	Team commitment	Turnover intentions	Psychological empowerment (meaning)	Psychological empowerment (competence)	Psychological empowerment (impact)
Intercept	4.00**	4.37**	4.55**	4.77**	3.02**
Team size	-.02	-.04	-.07*	.03†	-.05
Team mean education level	-.06	-.26	.01	-.18†	-.02
Work interdependence	.10	.02	.04	.01	.23
Gender	-.17	-.01	-.09	-.13	-.08
Gender dissimilarity	-.20	.51	.22	.04	.68
R^2_{within}	.00	.00	.00	.00	.00

† *p*<.10, two-tailed. **p*<.05, two-tailed. ***p*<.01, two-tailed.

Table 6

Euclidian Distance Random Coefficient Regression Model for Hypothesis 1 and Ethnic Dissimilarity

Predictor	Team commitment	Turnover intentions	Psychological empowerment (meaning)	Psychological empowerment (competence)	Psychological empowerment (impact)
Intercept	4.04**	5.17**	4.66**	4.59**	3.52**
Team size	-.01	-.01	-.06*	.03†	-.03
Team mean education level	-.17	-.41†	-.06	-.15	-.06
Work interdependence	.16	-.04	.03	.01	.12
Ethnicity 1	-.35*	-.36	-.29†	-.05	-.19
Ethnicity 2	.35*	.32	.20	.17	.11
Ethnic dissimilarity	-.50	-.22	-.02	-.03	.17
R^2_{within}	.02	.00	.00	.00	.00

† $p<.10$, two-tailed. *$p<.05$, two-tailed. **$p<.01$, two-tailed.

Table 7

Euclidian Distance Random Coefficient Regression Model for Hypothesis 2a

Predictor	Team commitment	Turnover intentions	Psychological empowerment (meaning)	Psychological empowerment (competence)	Psychological empowerment (impact)
Intercept	3.16*	2.70	4.62**	4.04**	
Team size	-.03	-.03	-.05*	.03†	
Team mean education level	-.09	-.19	.06	-.22*	
Work interdependence	.16	-.02	.06	.00	
Gender	.47	1.35	-.42	.75	
Gender dissimilarity	1.10	2.74	-.35	1.39	
Gender*Gender dissimilarity	-.97	-1.92	.48	-1.25†	
R^2_{within}	.00	.00	.00	.02	

† $p<.10$. two-tailed. *$p<.05$, two-tailed. **$p<.01$, two-tailed.

Table 8

Interaction Approach Random Coefficient Regression Model for Hypothesis 2a

Predictor	Team commitment	Turnover intentions	Psychological empowerment (meaning)	Psychological empowerment (competence)	Psychological empowerment (impact)
Intercept	3.91**	3.72**	3.88**	4.64**	3.46**
Team size	-.04	-.03	-.06**	.03	-.04*
Team mean education level	-.09	-.15	.06		
Work interdependence	.21	-.01	.07		
Gender	-.46	.18	.29	-.51	.19
Percent male	.00	.02	.01	-.01	.01
Gender*Percent male	.00	-.01	-.01	.01	-.01
R^2_{within}	.00	.00	.00	.00	.00

† $p<.10$, two-tailed. * $p<.05$, two-tailed. ** $p<.01$, two-tailed.

Table 9

Euclidian Distance Random Coefficient Regression Model for Hypothesis 2b

Predictor	Team commitment	Turnover intentions	Psychological empowerment (meaning)	Psychological empowerment (competence)	Psychological empowerment (impact)
Intercept	4.64**	3.44*	4.52**	4.01**	4.47**
Team size	-.01	-.01	-.05*	.03	-.04
Team mean education level	-.13	-.51*	-.07	-.20†	
Work interdependence	.13	-.05	.04	.00	
Ethnicity1	2.13	-1.82	.42	-1.11	1.41
Ethnicity2	-1.48	-.34	-.65	.40	-.46
Ethnic dissimilarity	-1.21	2.31	.09	.94	-.61
Ethnicity1*Ethnic dissimilarity	-2.98	1.53	-.86	1.26	-1.91
Ethnicity2*Ethnic dissimilarity	2.26	1.00	1.10	-.26	-.54
R^2_{within}	.00	.02	.00	.00	.02

† $p<.10$, two-tailed. *$p<.05$, two-tailed. **$p<.01$, two-tailed.

Table 10

Interaction Approach Random Coefficient Regression Model for Hypothesis 2b

Predictor	Team commitment	Turnover intentions	Psychological empowerment (meaning)	Psychological empowerment (competence)	Psychological empowerment (impact)
Intercept	3.56**	3.78**	4.92**	4.53**	3.59**
Team size	-.03	-.02	-.06**	.03†	-.03
Team mean education level	-.13			-.14	.05
Work interdependence	.22			.01	.18
Ethnicity1	.25	-.09	.02	-.08	.13
Ethnicity2	.16	-.23	.00	.15	-.39
Percent White	-.00	.00	-.01	.00	-.01
Ethnicity1*Percent White	-.01†	-.00	-.01	.00	-.01
Ethnicity2*Percent White	.00	.01	.00	.00	.01
R^2_{within}	.07	.00	.06[5]	.00	.09

† $p<.10$, two-tailed. *$p<.05$, two-tailed. **$p<.01$, two-tailed.

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[5] This is an inflated estimate that represents the total R-squared within instead of the change in R-squared within. The inflated estimate is because the analysis without the interaction term did not reach convergence.

Table 11

Euclidian Distance Random Coefficient Regression Model for Hypothesis 3 and Gender

Predictor	Team commitment	Turnover intentions	Psychological empowerment (meaning)	Psychological empowerment (competence)	Psychological empowerment (impact)
Gender identity 1					
Intercept	3.72**	4.13*	2.75*	3.48**	
Team size	-.02	-.03	-.06**	.03†	
Team mean education level	-.12	-.29	.12	-.34**	
Work interdependence	.05	-.02	.09	-.07	
Gender	-.14	-.04	-.09	-.02	
Membership	.11	.11	.21	.34*	
Gender dissimilarity	.34	.35	1.94	.73	
Membership* Gender dissimilarity	-.12	.01	-.29	-.11	
R^2_{within}	.00	.00	.00	.00	
Gender identity 2					
Intercept	4.12**	3.81*	3.02*	2.71**	
Team size	-.02	-.03	-.06*	.04*	
Team mean education level	-.05	-.34†	.06	-.27*	
Work interdependence	.13	.00	.09	-.03	
Gender	-.11	.05	-.01	-.05	
Private	-.06	.14	.18	.39**	
Gender dissimilarity	-1.36	.26	1.27	2.05†	
Private * Gender dissimilarity	.20	.02	-.18	-.35†	
R^2_{within}	.00	.00	.00	.00	
Gender identity 3					
Intercept	3.73**	5.61**	3.60**	4.28**	
Team size	-.02	-.04	-.07*	.03	
Team mean education level	-.05	-.29	.08	-.29**	
Work interdependence	.12	.06	.11	-.02	

Gender	-.12	-.05	-.02	-.23†
Public	.03	-.22	.07	.20†
Gender dissimilarity	-1.15	-2.53	.10	1.73†
Public * Gender dissimilarity	.18	.59	.02	-.31†
R^2_{within}	.00	.01	.00	.01
Gender identity 4				
Intercept	3.59**	3.79*	3.05**	4.48**
Team size	-.02	-.03	-.06*	.04*
Team mean education level	-.07	-.32	.08	-.24*
Work interdependence	.08	-.02	.08	-.02
Gender	-.11	-.11	-.07	-.21
General	.09	.23	.22†	.13
Gender dissimilarity	-.15	2.04	1.80†	1.34†
General * Gender dissimilarity	-.02	-.35	-.33†	-.26
R^2_{within}	.00	.00	.01	.02

Note. Each interaction model was tested separately.
† $p<.10$, two-tailed. *$p<.05$, two-tailed. **$p<.01$, two-tailed.

Table 12

Interaction Approach Random Coefficient Regression Model for Hypothesis 3 and Gender

Predictor	Team commitment	Turnover intentions	Psychological empowerment (meaning)	Psychological empowerment (competence)	Psychological empowerment (impact)
Gender identity 1					
Intercept	2.73	2.22	.22	1.61	2.39
Team size	-.04	-.05*	-.06*	.02	-.04†
Team mean education level	-.13		.13	-.22*	.00
Work interdependence	.16		.09	-.06	.11
Membership	.28	.21	.63	.70*	.14
Gender	.37	.10	2.68	1.78	.52
Percent male	.04	.08	.06	.03	.00
Membership* Gender	-.17	.02	-.47	-.41	-.07
Membership*Percent male	-.01	-.01	-.01	-.01	.00
Gender*Percent male	-.02	-.04	-.05	-.03	-.00
Membership*Percent male*Gender	.01	.01	.01	.01	.00
R^2_{within}	.00	.00	.00	.02	.00
Gender identity 2					
Intercept	4.95*	1.32	2.35	.62	3.52
Team size	-.04	-.03	-.06*	.03*	-.04*
Team mean education level	-.04		.08	-.23*	
Work interdependence	.22		.09	-.03	
Private	-.18	.37	.22	.79**	-.00
Gender	-.71	1.25	.96	2.41*	-.10
Percent male	-.11	.11	.04	.06	.00
Private* Gender	.02	-.21	-.11	-.48*	.04
Private *Percent male	.02	-.02	-.00	-.01	.00
Gender*Percent male	.05	-.07	-.02	-.05	.00

Private *Percent male*Gender	-.01	.01	.00	.01†	-.00
R^2_{within}	.00	.00	.00	.01	.00
Gender identity 3					
Intercept	4.23*	6.18†	3.10	1.90	-.95
Team size	-.04	-.04	-.06*	.03	-.02
Team mean education level	-.04		.15	-.20*	
Work interdependence	.24		.14	.01	
Public	-.10	-.49	.04	.67*	.92†
Gender	-.83	-2.07	.23	2.35†	3.70†
Percent male	-.05	-.05	-.02	.07†	.04
Public * Gender	.05	.39	.01	-.58*	-.76†
Public *Percent male	.01	.01	.01	-.01†	-.01
Gender*Percent male	.03	.03	.01	-.06*	-.04
Public *Percent male*Gender	-.00	-.01	-.00	.01*	.01
R^2_{within}	.00	.00	.00	.09[6]	.00
Gender identity 4					
Intercept	3.41†	1.07	2.11	2.39†	1.08
Team size	-.04	-.03	-.05*	.03	-.03
Team mean education level	-.07		.08		
Work interdependence	.18		.04		
General	.13	.53	.35	.50†	.52
Gender	-.20	1.02	.93	1.26	1.31
Percent male	-.00	.13*	.07	.04	.10*
General * Gender	-.07	-.22	-.12	-.41†	-.26
General *Percent male	.00	-.03*	-.01	-.01†	-.02*
Gender*Percent male	.00	-.07	-.04	-.03	-.05

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[6] This is an inflated estimate that represents the total R-squared within instead of the change in R-squared within. The inflated estimate is because the analysis without the interaction term did not reach convergence.

General *Percent male*Gender	.00	.01	.01	.01†	.01
R^2_{within}	.00	.00	.00	.00	.01

Note. Each interaction model was tested separately.

† *p*<.10, two-tailed. *p<.05, two-tailed. **p<.01, two-tailed.

Table 13

Euclidian Distance Random Coefficient Regression Model for Hypothesis 3 and Ethnicity

Predictor	Team commitment	Turnover intentions	Psychological empowerment (meaning)	Psychological empowerment (competence)	Psychological empowerment (impact)
Ethnic identity1					
Intercept	4.51**	4.33**	4.83**	4.95**	3.31**
Team size	-.05	-.03	-.06*	.03	-.02
Team mean education level	-.14	-.31	-.07	-.17	-.17
Work interdependence	.20	.05	.01	.01	.15
Ethnicity 1	-.26	-.63**	-.47*	-.02	-.31
Ethnicity 2	.31*	.48*	.28†	.13	.14
Ethnic identity search	-.18	-.09	-.09	-.13	.09
Ethnic dissimilarity	-.96	.45	-.62	-.04	.94
Ethnic identity search*Ethnic dissimilarity	.21	.07	.26	.06	-.22
R^2_{within}	.00	.00	.00	.00	.12
Ethnic identity 2					
Intercept	3.98**	4.64**	4.15**	4.13**	2.35*
Team size	-.01	.00	-.05*	.03	-.03
Team mean education level	-.17	-.40†	-.06	-.16	
Work interdependence	.16	.08	.04	.01	
Ethnicity 1	-.28	-.78**	-.28	-.05	.02
Ethnicity 2	.35*	.54*	.18	.13	-.06
Ethnic identity affirmation, belonging, commitment	.02	-.12	.13	.12	.35
Ethnic dissimilarity	.18	-1.88	.42	.44	3.33†

Ethnic identity affirmation, belonging, commitment*Ethnic dissimilarity	-.19	.60	-.14	-.10	-.79[†]
R^2_{within}	.00	.00	.00	.00	.00

Note. Each interaction model was tested separately.

[†] *p*<.10, two-tailed. **p*<.05, two-tailed. ***p*<.01, two-tailed.

Table 14

Interaction Approach Random Coefficient Regression Model for Hypothesis 3 and Ethnicity

Predictor	Team commitment	Turnover intentions	Psychological empowerment (meaning)	Psychological empowerment (competence)	Psychological empowerment (impact)
Ethnic identity1					
Intercept	4.81**	4.39*			3.25[†]
Team size	-.04	-.05			-.03
Team mean education level	-.14				.05
Work interdependence	.20				.15
Ethnic identity search	-.35	-.26			.08
Ethnicity1	-.16	-3.44			-2.71
Ethnicity2	2.73	4.00			1.35
Percent White	-.03	-.03			.02
Ethnic identity search*Ethnicity1	.16	1.02			.97
Ethnic identity search*Ethnicity2	-.94	-1.48[†]			-.59
Ethnic identity search*Percent White	.01	.01			-.01
Ethnicity1*Percent White	.01	.11*			.04
Ethnicity2*Percent White	-.06	-.13*			-.00
Ethnic identity search*Percent White*Ethnicity1	-.01	-.03*			-.02
Ethnic identity search*Percent White*Ethnicity2	.02	.05*			.01
R^2_{within}	.02	.05			.01
Ethnic identity 2					
Intercept	1.14	1.33			
Team size	-.03	-.01			
Team mean education level	-.10	-.54*			
Work interdependence	.19	.09			
Ethnic identity affirmation, belonging,	.57	.85			

commitment		
Ethnicity1	-6.98*	-2.62
Ethnicity2	5.53*	3.02
Percent White	.06	.07
Ethnic identity affirmation, belonging, commitment*Ethnicity1	1.74*	.47
Ethnic identity affirmation, belonging, commitment*Ethnicity2	-1.36*	-.74
Ethnic identity affirmation, belonging, commitment*Percent White	-.01	-.02
Ethnicity1*Percent White	.17*	.12
Ethnicity2*Percent White	-.12*	-.10
Ethnic identity affirmation, belonging, commitment*Ethnicity1*Percent White	-.04*	-.03
Ethnic identity affirmation, belonging, commitment*Ethnicity2*Percent White	.03*	.03
R^2_{within}	.03	.01

Note. Each three-way interaction model was tested separately.

[†] $p<.10$, two-tailed. *$p<.05$, two-tailed. **$p<.01$, two-tailed.

Table 15

Euclidian Distance Random Coefficient Regression Model for Hypothesis 4a

Predictor	Team commitment	Turnover intentions	Psychological empowerment (meaning)	Psychological empowerment (competence)	Psychological empowerment (impact)
Intercept	4.29		3.50	-.36	-1.30
Team size	-.00		-.06*	.03†	-.05*
Team mean education level	-.32		.00	-.22†	
Work interdependence	.11		.06	-.05	
Ethnicity 1	-.37*		-.27†	-.06	-.16
Ethnicity 2	.38*		.17	.20	.04
Team climate for diversity	.08		.19	1.22*	1.12
Ethnic dissimilarity	-3.27		2.93	7.12*	7.63
Team climate for diversity*Ethnic dissimilarity	.64		-.68	-1.61**	-1.62
R^2_{within}	.00		.00	.00	.00

† $p<.10$, two-tailed. *$p<.05$, two-tailed. **$p<.01$, two-tailed.

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Table 16

Interaction Approach Random Coefficient Regression Model for Hypothesis 4a

Predictor	Team commitment	Turnover intentions	Psychological empowerment (meaning)	Psychological empowerment (competence)	Psychological empowerment (impact)
Intercept	3.51		-.96		4.35
Team size	-.03		-.07*		-.03
Team mean education level					
Work interdependence					
Team climate for diversity	.23		1.11		.00
Ethnicity1	12.98*		-1.40		3.54
Ethnicity2	-12.38*		-3.12		-5.12
Percent White	.01		.19*		.03
Team climate for diversity*Ethnicity1	-2.86*		.29		-.72
Team climate for diversity*Ethnicity2	2.81*		.73		.98
Team climate for diversity* Percent White	-.01		-.05*		-.01
Ethnicity1*Percent White	-.32*		.09		-.13
Ethnicity2*Percent White	.35*		.09		.24
Team climate for diversity* Percent White*Ethnicity1	.07*		-.02		.03
Team climate for diversity* Percent White*Ethnicity2	-.08*		-.02		-.05
R^2_{within}	.06		.02		.03

† $p<.10$, two-tailed. *$p<.05$, two-tailed. **$p<.01$, two-tailed.

Table 17

Random Coefficient Regression Model for Hypothesis 4b

Predictor	Team commitment	Turnover intentions	Psychological empowerment (meaning)	Psychological empowerment (competence)	Psychological empowerment (impact)
Ethnic identity1					
Intercept	12.31	17.88	11.78	12.54*	18.87
Team size	-.04	-.05	-.06*	.03	-.04
Team mean education level	-.32	-.17	-.05	-.29**	-.22
Work interdependence	.13	.13	.03	-.07	.10
Ethnicity 1	-.33†	-.54*	-.46*	-.06	-.27
Ethnicity 2	.37*	.44†	.29	.24†	.26
Ethnic identity search	-3.49	-3.72	-3.35	-5.47*	-8.37*
Team climate for diversity	-1.53	-3.13	-1.57	-1.49	-3.31
Ethnic dissimilarity	-11.42	-20.73	-10.26	-7.64	-22.32
Ethnic identity search* Team climate for diversity	.72	.81	.73	1.18*	1.89*
Ethnic identity search*Ethnic dissimilarity	3.93	6.26	4.93	6.35†	11.62*
Team climate for diversity*Ethnic dissimilarity	2.27	4.75	2.16	1.62	5.26
Ethnic identity search*Ethnic dissimilarity * Team climate for diversity	-.80	-1.41	-1.05	-1.39†	-2.69*
R^2_{within}	.00	.00	.02	.01	.05
Ethnic identity 2					
Intercept	7.46		32.17*	-.18	43.15*
Team size	-.00		-.06*	.03	-.06†
Team mean education level	-.32		-.03	-.23*	
Work interdependence	.10		.07	-.06	

Ethnicity 1	-.31†	-.30	-.05	-.04
Ethnicity 2	.36*	.19	.15	.03
Ethnic identity affirmation, belonging, commitment	-.94	-8.31†	-.08	-12.75*
Team climate for diversity	-.61	-6.39†	1.13	-9.15*
Ethnic dissimilarity	-5.67	-42.32†	10.62	-53.86†
Ethnic identity affirmation, belonging, commitment*Team climate for diversity	.21	1.91†	.03	2.95*
Ethnic identity affirmation, belonging, commitment * Ethnic dissimilarity	.80	12.92*	-.91	17.38*
Team climate for diversity*Ethnic dissimilarity	1.27	9.80†	-2.40	12.95*
Ethnic identity affirmation, belonging, commitment *Ethnic dissimilarity *Team climate for diversity	-.21	-2.99*	.21	-4.11*
R^2_{within}	.00	.05	.00	.07

Note. Each three-way interaction model was tested separately.

† *p*<.10, two-tailed. **p*<.05, two-tailed. ***p*<.01, two-tailed.

Figure 1. Hypothesized model

.
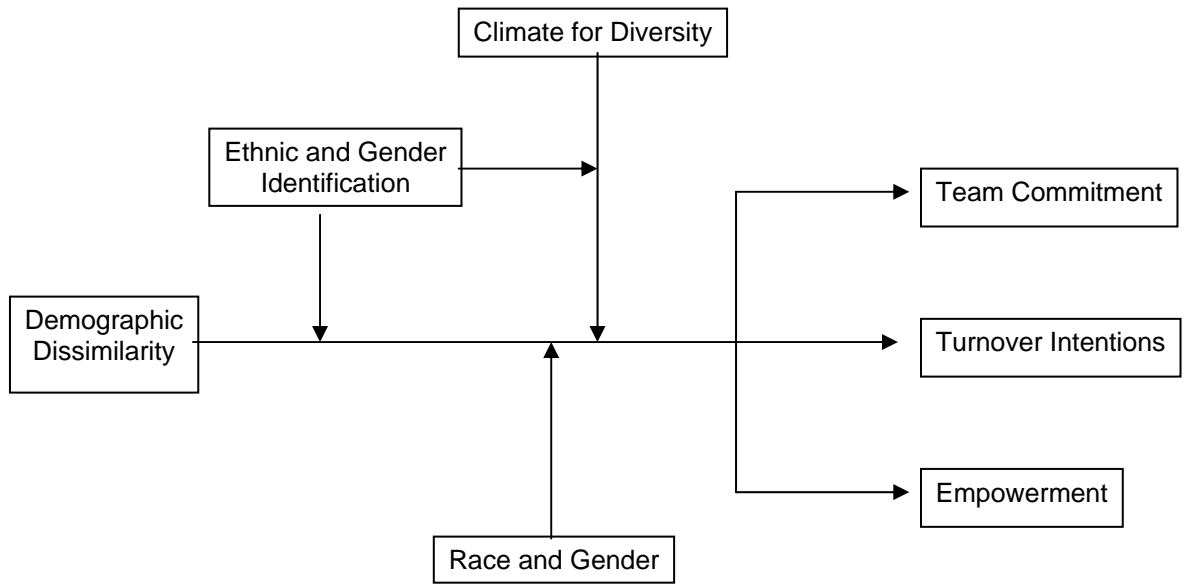
Figure 2. Psychological empowerment competence as a function of gender dissimilarity (Hypothesis 2a).
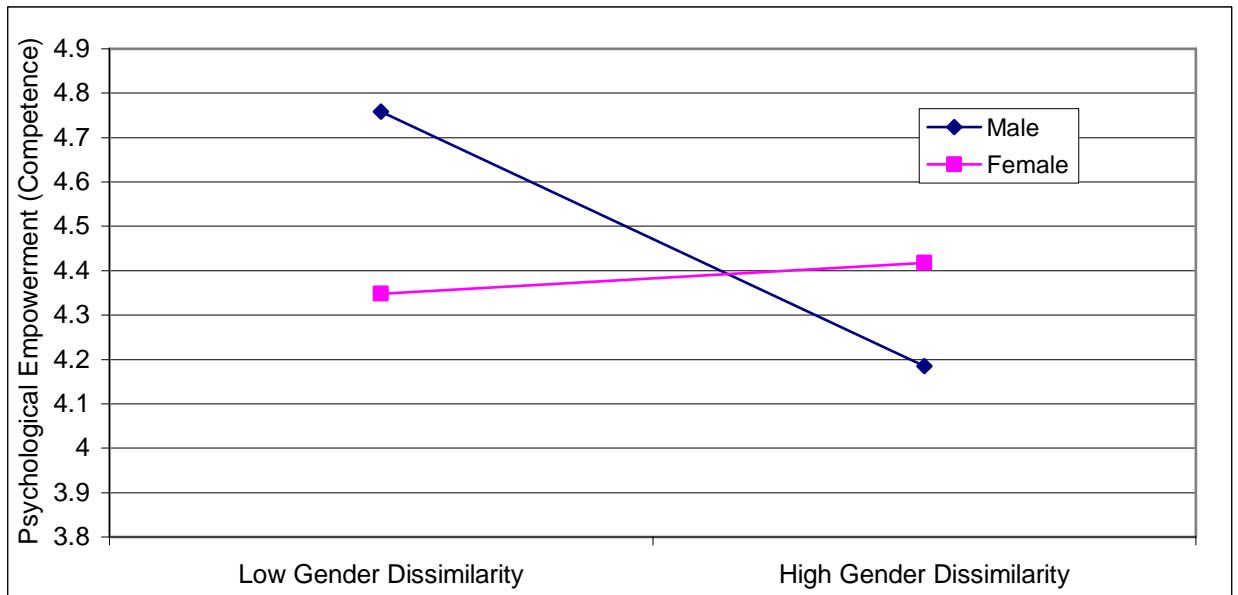
Figure 3. Team commitment as a function of ethnic group composition (Hypothesis 2b).
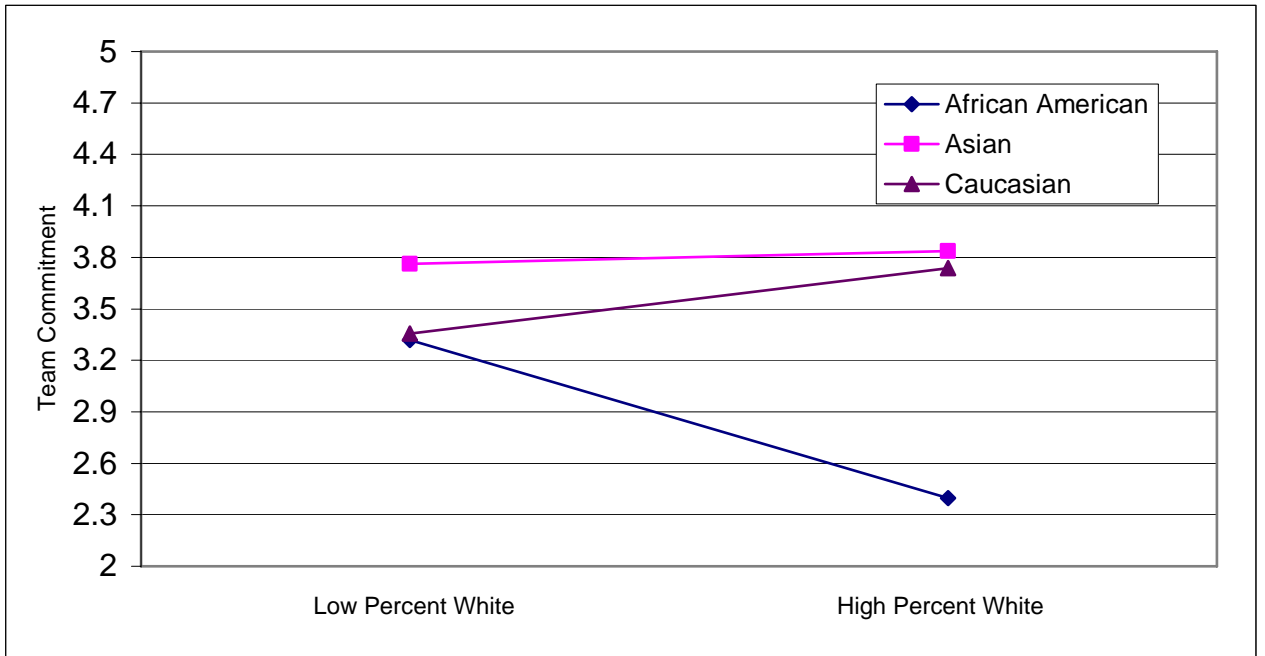
Figure 4. Psychological empowerment meaning as a function of gender dissimilarity and gender identification (general identity) (Hypothesis 3).
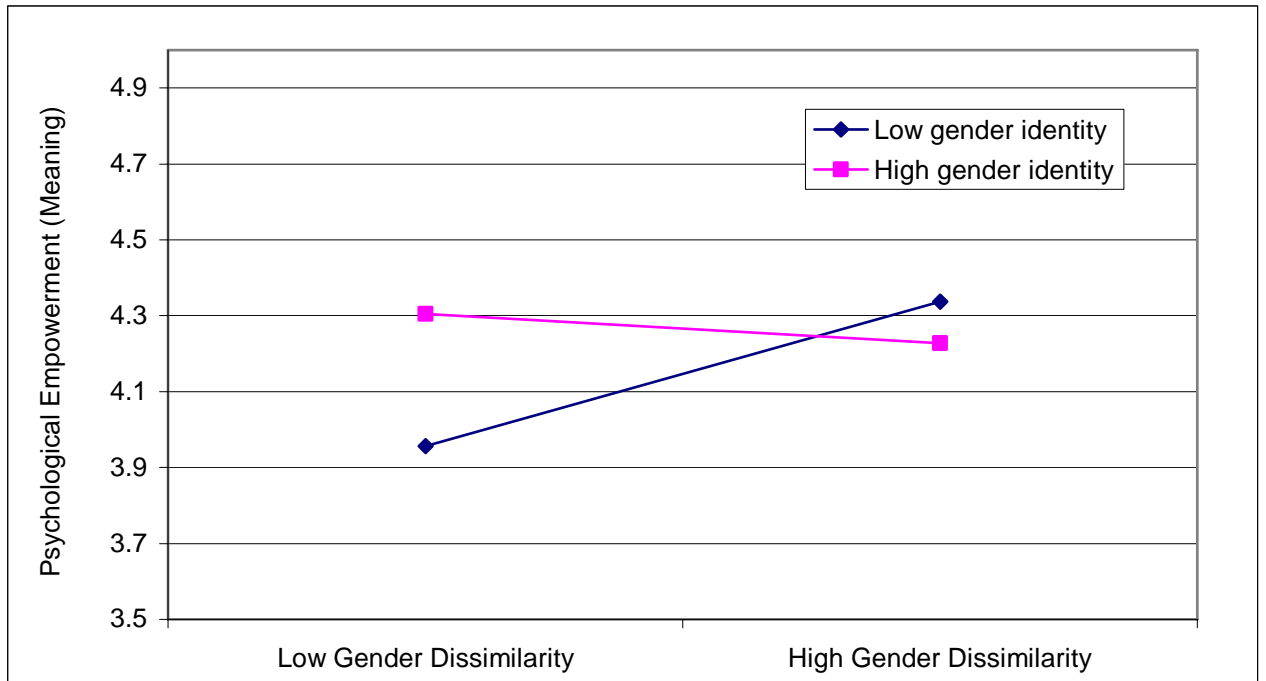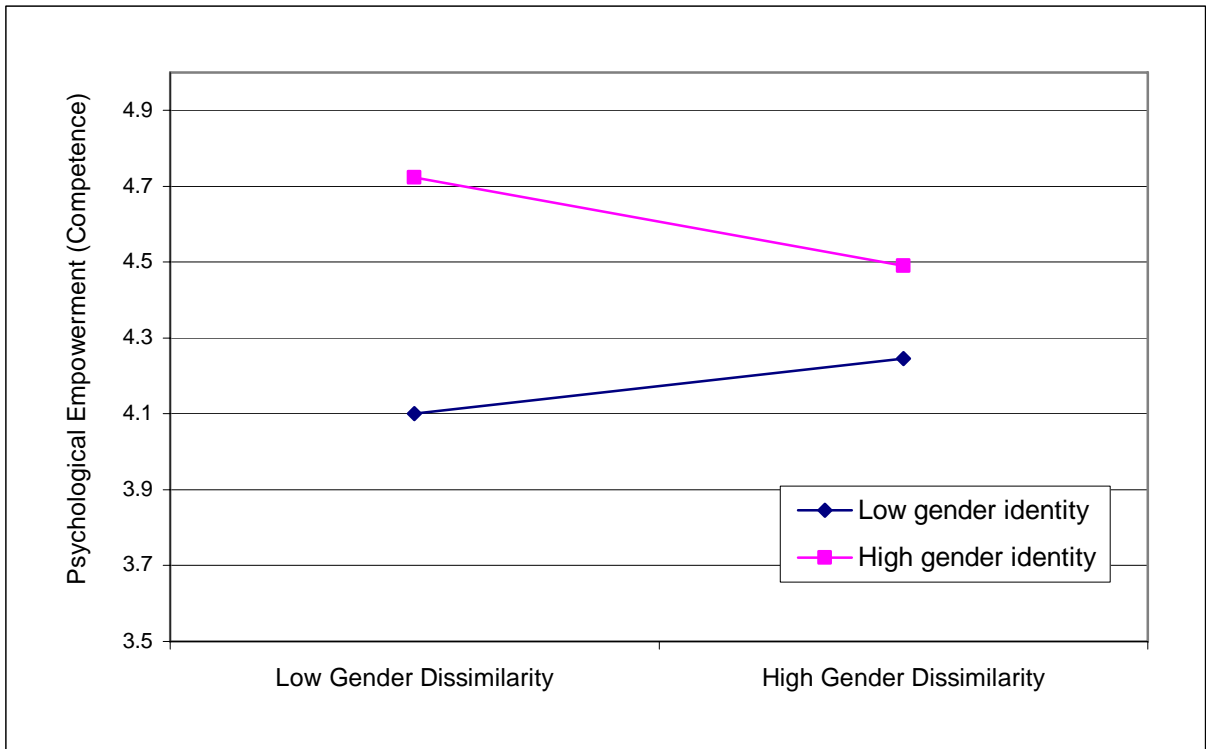
Figure 5. Psychological empowerment meaning as a function of gender dissimilarity and gender identification (private) (Hypothesis 3).
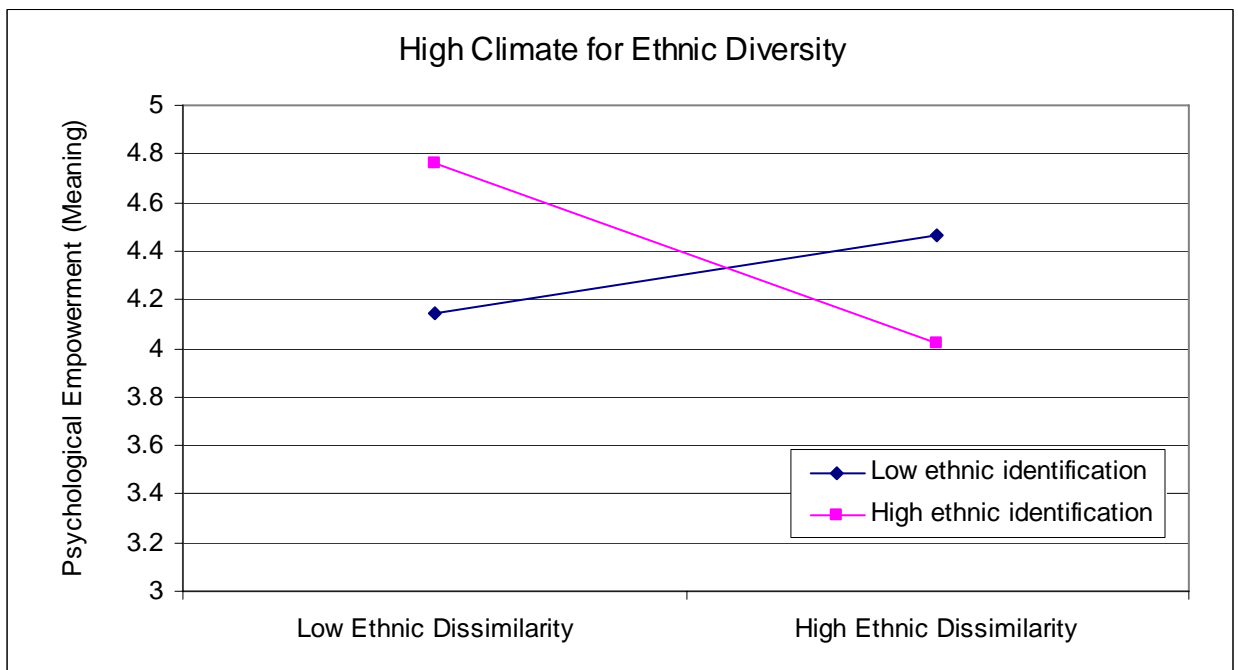
Figure 6. Psychological empowerment as a function of ethnic dissimilarity and ethnic identification (identity, affirmation, belonging, and commitment) (Hypothesis 3).
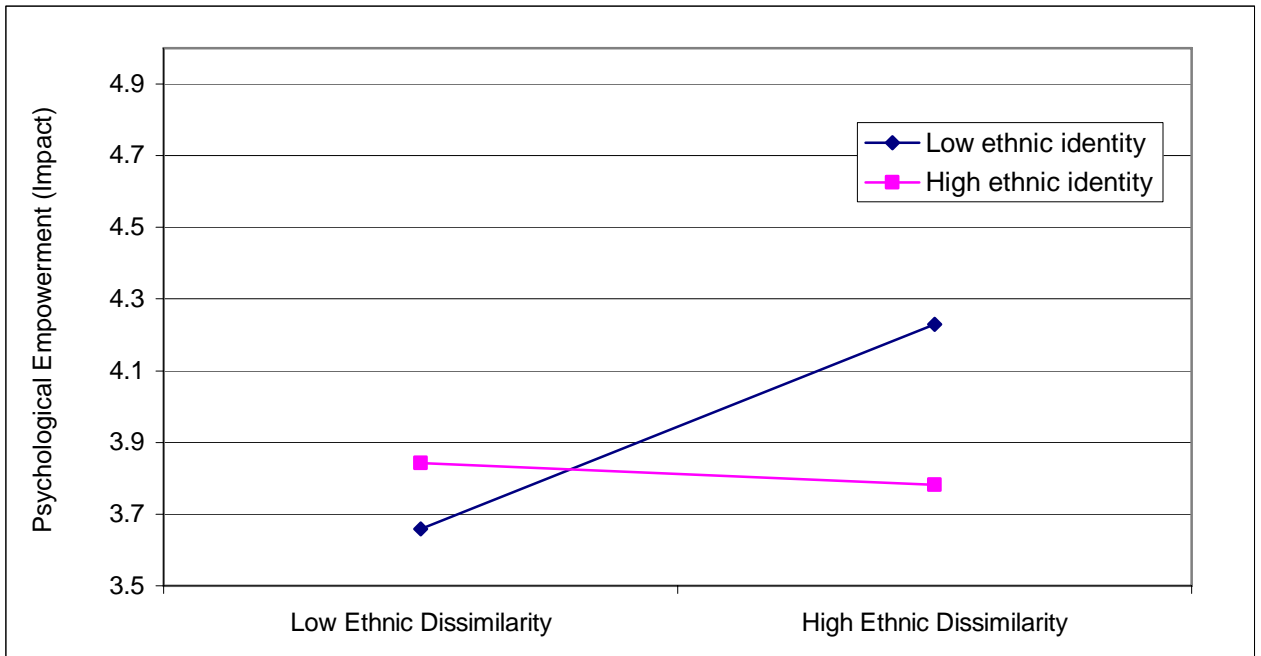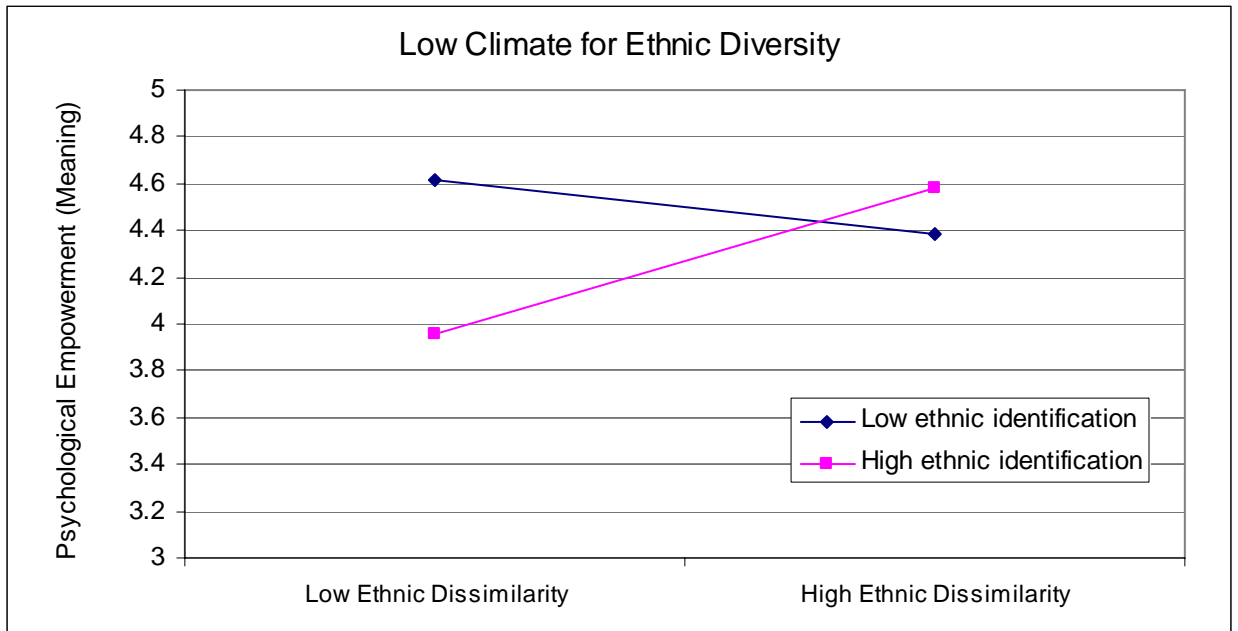
Figure 7. Psychological Empowerment as a function of ethnic dissimilarity and climate for ethnic diversity (Hypothesis 4a).
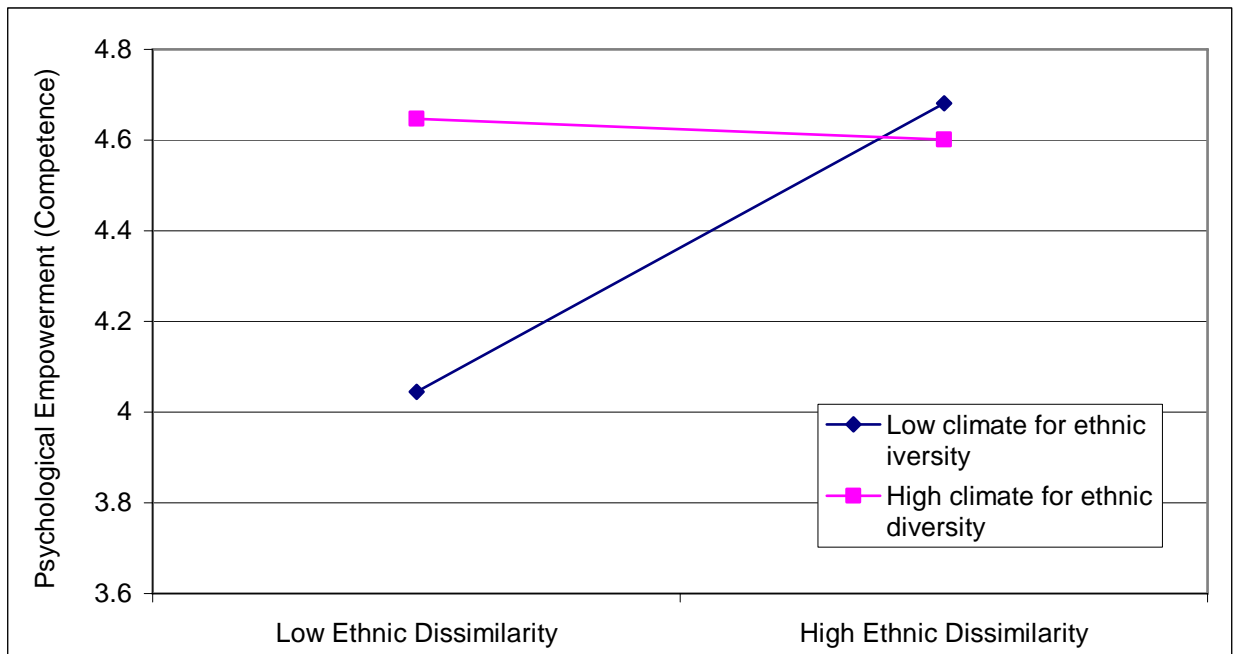
Figures 8 and 9. Psychological empowerment as a function of ethnic dissimilarity and ethnic identity (affirmation, belonging, and commitment) for low and high climates for ethnic diversity (Hypothesis 4b).

Figures 10 and 11. Psychological empowerment as a function of ethnic dissimilarity and ethnic identity (search) for low and high climates for ethnic diversity (Hypothesis 4b).
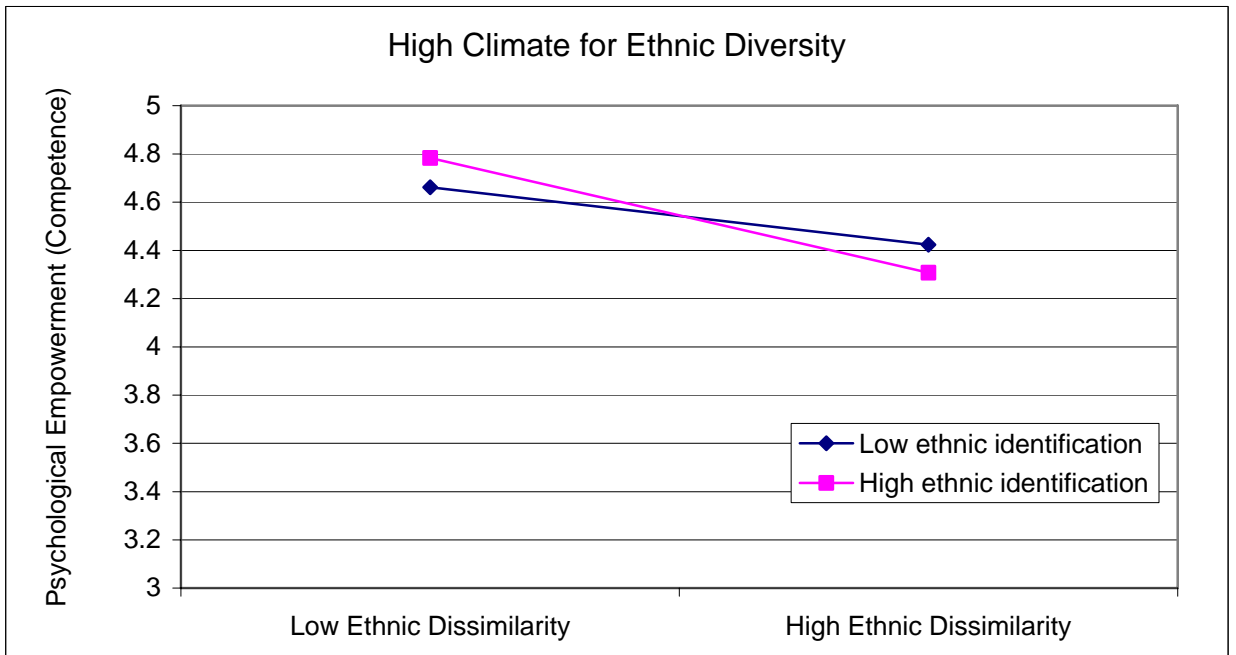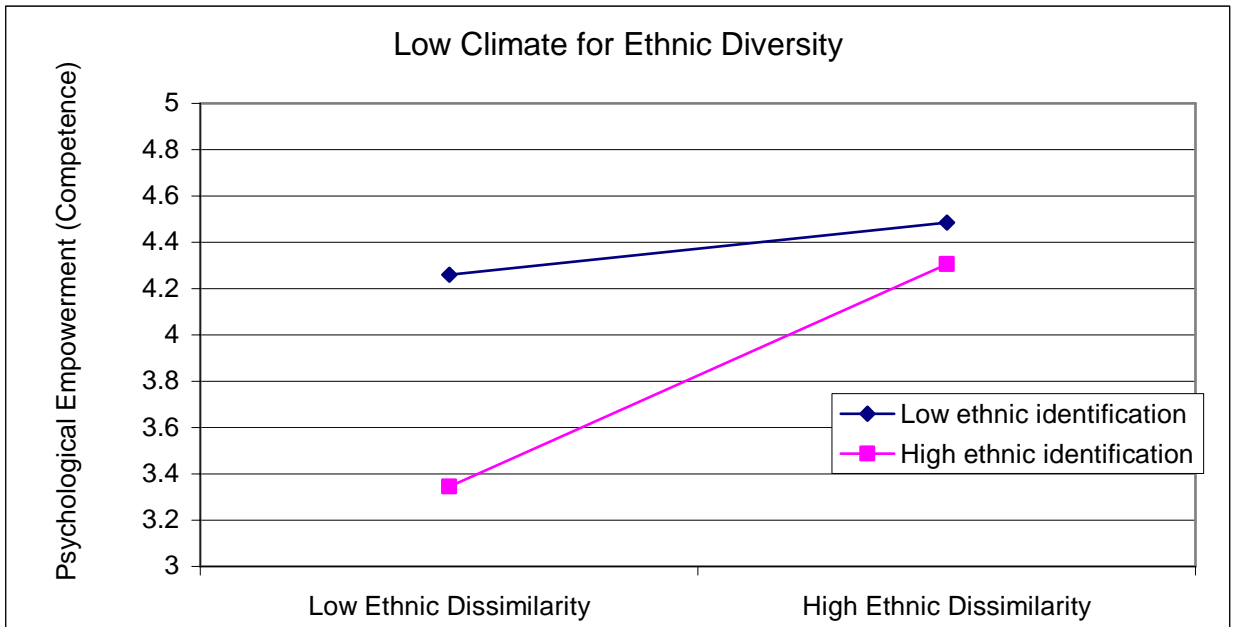
Appendix A

Measure: Climate for Diversity
Source: Developed for this study
Scale: 1=strongly disagree to 5= strongly agree

Race/Ethnicity
1. The race or ethnicity of a team/work unit member does **NOT** affect how they are valued on this team/work unit. (**.87**)
2. The race or ethnicity of a team/work unit member does **NOT** affect how much attention is paid to their opinions. (**.87**)
3. On this team/work unit, people from different racial or ethnic backgrounds work well together. (**.57**)
4. The race or ethnicity of a team/work unit member does **NOT** affect their access to important information. (**.88**)
5. The support from supervisors that team/work unit members receive does **NOT** differ as a function of team/work unit members' race or ethnicity. (**.87**)
6. On this team/work unit, people of different races or ethnic backgrounds tend to stick together. (R) (**.33; dropped from subscale**)
7. Team/work unit members are rewarded based on their contributions and **NOT** on their race or ethnicity. (**.84**)
8. Team/work unit members agree that the racial or ethnic diversity of a team is beneficial to the functioning of the team/work unit. (**.37; dropped from subscale**)
9. The racial or ethnic diversity of this team/work unit creates conflict among team/work unit members. (R) (**.66**)
10. There appears to be racial or ethnic discrimination on this team/work unit. (R) (**.79**)

Gender
11. The gender of a team/work unit member does **NOT** affect how they are valued on this team/work unit. (**.82**)
12. The gender of a team/work unit member does **NOT** affect how much attention is paid to their opinions. (**.82**)
13. On this team/work unit, males and females work well together. (**.67**)
14. The gender of a team/work unit member does **NOT** affect their access to important information. (**.88**)
15. The support from supervisors that team/work unit members receive does **NOT** differ as a function of team/work unit members' gender. (**.89**)
16. On this team/work unit, people of different genders tend to stick together. (R) (**.27; dropped from subscale**)
17. Team/work unit members are rewarded based on their contributions and **NOT** on their gender. (**.82**)
18. Team/work unit members agree that having both males and females on a team is beneficial to the functioning of the team/work unit. (**.43; dropped from subscale**)

19. The gender composition of this team/work unit creates conflict among team/work unit members. (R) (**.72**)
20. There appears to be gender discrimination on this team/work unit. (R) (**.81**)

Rank

21. The rank of a team/work unit member does **NOT** affect how they are valued on this team/work unit. (**.83**)
22. The rank of a team/work unit member does **NOT** affect how much attention is paid to their opinions. (**.85**)
23. On this team/work unit, people from different ranks work well together. (.77)
24. The rank of a team/work unit member does **NOT** affect their access to important information. (.83)
25. The support from supervisors that team/work unit members receive does **NOT** differ as a function of team/work unit members' rank. (**.89**)
26. On this team/work unit, people of different ranks tend to stick together. (R) (**.24; dropped from subscale**)
27. Team/work unit members are rewarded based on their contributions and **NOT** on their rank. (**.73**)
28. Team/work unit members agree that having employees of different ranks on a team is beneficial to the functioning of the team/work unit. (**.57; dropped from subscale**)
29. Having individuals from different ranks on this team/work unit creates conflict among team/work unit members. (R) (**.73**)
30. There appears to be discrimination between employees of different ranks on this team/work unit. (R) (**.78**)

Appendix B

Measure: Multigroup Ethnic Identity Measure (MEIM)
Source: Phinney, 1992
Scale: 1=strongly disagree to 5= strongly agree

1. I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs.
2. I am active in organizations or social groups that include mostly members of my own ethnic group.
3. I have a clear sense of my ethnic background and what it means for me.
4. I think a lot about how my life will be affected by my ethnic group membership.
5. I am happy that I am a member of the group I belong to.
6. I have a strong sense of belonging to my own ethnic group.
7. I understand pretty well what my ethnic group membership means to me.
8. In order to learn more about my ethnic background, I have often talked to other people about my ethnic group.
9. I have a lot of pride in my ethnic group.
10. I participate in cultural practices of my own group, such as special food, music, or customs.
11. I feel a strong attachment towards my own ethnic group.
12. I feel good about my cultural or ethnic background.

Appendix C

Measure: Collective Self-Esteem Scale (Gender Identity)
Source: Luhtanen & Crocker, 1992
Scale: 1= strongly disagree to 7=strongly agree

1. I am a worthy member of my gender.
2. I often regret that I belong to my gender. (R)
3. Overall, my gender group is considered good by others.
4. Overall, my gender has very little to do with how I feel about myself. (R)
5. I feel I don't have much to offer to my gender. (R)
6. In general, I'm glad to be a member of my gender.
7. Most people consider my gender, on the average, to be more ineffective than the other gender. (R)
8. The gender I belong to is an important reflection of who I am.
9. I am a cooperative participant in the activities of my gender.
10. Overall, I often feel that my gender is not worthwhile. (R)
11. In general, others respect my gender.
12. My gender is unimportant to my sense of what kind of a person I am. (R)
13. I often feel I'm a useless member of my gender. (R)
14. I feel good about the gender I belong to.
15. In general, others think that my gender is unworthy. (R)
16. In general, belonging to my gender is an important part of my self image.

Appendix D

Measure: Team Commitment
Source: Bishop & Scott, 2000
Scale: 1=strongly disagree to 5= strongly agree

1. I talk up (brag about) this team to my friends as a great team to work on.
2. I would accept almost any job in order to keep working with this team.
3. I find that my values and the team's values are very similar.
4. I am proud to tell others that I am part of this team.
5. This team really inspires the very best in me in the way of job performance.
6. I am extremely glad that I chose this team to work with over other teams.
7. I really care about the fate of this team.
8. For me this is the best of all possible teams with which to work.

Appendix E

Measure: Intent to Stay Scale (Turnover Intentions)
Source: Tsui, Egan, & O'Reilly, 1992
Scale: 1=strongly disagree to 5= strongly agree

1. I desire and intend to remain an employee of the University Library system.

2. How long do you intend to continue working at the University Library system?

1	2	3	4	5
1 year or less	*5 years or less*	*10 years or less*	*11 or more years*	*the rest of my career or until retirement*

Measure: Psychological Empowerment in the Workplace
Source: Spreitzer, 1995
Scale: 1=strongly disagree to 5= strongly agree

1. The work I do is very important to me.
2. My job activities are personally meaningful to me.
3. The work I do is meaningful to me.
4. I am confident about my ability to do my job.
5. I am self-assured about my capabilities to perform my work activities.
6. I have mastered the skill necessary for my job.
7. My impact on what happens in my team is large.
8. I have a great deal of control over what happens in my team.
9. I have a significant influence over what happens in my team.

Appendix G

Measure: Work Interdependence
Source: Klein, Conn, Smith, & Sorra (2001)
Scale: 1=not at all to 5= very much

1. How much must team/ work group members coordinate their activities with other team/ work group members to get their jobs done?
2. How much do team/ work group members depend on other team/ work group members for information they need to do their daily work?
3. How much do team/ work group members perform their work tasks as a team/ work group?
4. How much do team/ work group members depend on other team/ work group members for help or assistance to do their work?
5. How much must team/ work group members communicate with other team/ work group members in order to do their daily tasks?

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