

DIFFERENCES IN DIVERSITY CONCEPTUALIZATIONS AND THE RELATIONSHIP
BETWEEN DIVERSITY CLIMATE, BELONGINGNESS, AND TURNOVER IN US
MANUFACTURING

by
Danielle Wilson

A dissertation submitted to the Psychology Department,
College of Liberal Arts and Social Sciences
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY
in Industrial/Organizational Psychology

Chair of Committee: Vincent Ng, Ph.D.

Committee Member: Denise Reyes, Ph.D.

Committee Member: Jaye Derrick, Ph.D.

Committee Member: Matt O'Connor, Ph.D.

University of Houston
August 2023

ABSTRACT

Turnover rates have ballooned in recent years in manufacturing as power dynamics have shifted from organization to worker; Employees been rethinking their relationships with work - focusing more on quality of life and feelings of belongingness. At the same time, organizations have increased efforts to enhance diversity and inclusion and although this appears to align with the shifting focus of today's workers, research has found mixed outcomes of these efforts. However, much research has excluded manufacturing and those that do include blue-collar workers tend to define diversity based on gender, age, or categorical race alone. Using a sample of 2,319 United States manufacturing workers, the current study examines the impact of categorical race and racial dissimilarity on perceptions of diversity climate, feelings of belonging, and turnover. Using survey responses and organizational turnover data, results revealed that belongingness mediates the relationship between turnover and both categorical race and racial dissimilarity, though in a direction contrary to prior literature. Additional analyses suggest that feelings of belongingness differ for employees of the same categorical race at varying levels of racial dissimilarity, and that perceptions of diversity climate by same-race employees differ depending on the racial majority at the plant. Combined, results suggest that conceptualizations of diversity should go beyond broad categorizations and account for proximal workplace context.

TABLE OF CONTENTS

Abstract.....	ii
List of Tables.....	v
List of Figures.....	vii
Introduction.....	1
Why Diversity Matters.....	3
Categorical and Relational Diversity.....	5
Effects of Diversity on Belongingness.....	7
Diversity Climate: A Multilevel Perspective.....	10
Proposed Conceptual Model.....	11
Diversity Climate, Race, and Belongingness.....	12
Method.....	16
Participants and Procedure.....	16
Measures.....	16
Categorical Race.....	16
Racial Dissimilarity.....	17
Diversity Climate and Belongingness.....	18
Turnover.....	20
Control Variables.....	20
Analyses.....	21
Data Preparation.....	21
Statistical Analyses.....	21
Results.....	23

Hypotheses 1-4: Race, Belongingness, and Turnover.....	23
Hypothesis 2.....	23
Hypothesis 3.....	25
Hypothesis 4.....	26
Multilevel Model: Hypotheses 5-7.....	27
Hypothesis 5.....	28
Hypothesis 6.....	28
Hypothesis 7.....	28
Exploratory Analysis: Racial Subgroups.....	29
Exploratory Analysis: Adding Turnover.....	29
Discussion.....	29
Limitations and Future Directions.....	34
Conclusion.....	36
References.....	38

LIST OF TABLES

Table 1. Means, Standard Deviations, and Intercorrelations.....	52
Table 2. Belongingness and Turnover by Racial Subgroup.....	53
Table 3. Mediation Analysis with Categorical Race.....	54
Table 4. Exploratory: Mediation Analysis with Black Race.....	55
Table 5. Exploratory: Mediation Analysis with Hispanic Race.....	56
Table 6. Exploratory: Mediation Analysis with Other Race.....	57
Table 7. Mediation Analysis with Racial Dissimilarity.....	58
Table 8. Differences in Direct and Indirect Effects.....	59
Table 9. Multilevel Model Results for Hypothesis 5.....	60
Table 10. Multilevel Model Results for Hypothesis 6.....	61
Table 11. Multilevel Model Results for Hypothesis 7.....	62
Table 12. Exploratory: Multilevel Model Results for Hypotheses 5 and 7 with Black Race.....	63
Table 13. Exploratory: Multilevel Model Results for Hypotheses 5 and 7 with Hispanic Race.....	64
Table 14. Exploratory: Multilevel Model Results for Hypotheses 5 and 7 with Other Race.....	65
Table 15. Exploratory: Multilevel Model Results for Hypothesis 5 with Turnover.....	66
Table 16. Exploratory: Multilevel Model Results for Hypothesis 6 with Turnover.....	67

Table 17. Exploratory: Multilevel Model Results for Hypothesis 7 with Turnover.....	68
Table 18. Exploratory: Multilevel Model Results for Hypotheses 5 and 7 with Black Race and Turnover.....	69
Table 19. Exploratory: Multilevel Model Results for Hypotheses 5 and 7 with Hispanic Race and Turnover.....	70
Table 20. Exploratory: Multilevel Model Results for Hypotheses 5 and 7 with Other Race and Turnover.....	71

LIST OF FIGURES

Figure 1. Proposed Conceptual Model.....	12
Figure 2. Euclidean Distance Formula from Tsui et al. (1992).....	17

Differences in diversity conceptualizations and the relationship between diversity climate, belongingness, and turnover in US manufacturing

The population of the United States is projected to grow nearly 50% by 2050, at which time minorities are expected to rise from one in four Americans to one in two (McCann & Aravamudhan, 2013). With the US's increasingly diverse population, companies in recent decades have placed emphasis on creating diverse, equitable, and inclusive work environments either out of feelings of obligation (Mor Barak, 2015; E. S. Ng & Sears, 2012), to meet state compliance and legislature (Resnick & Fuller, 2021), for strategic reasons (Fernandez, 1993; Hayles & Russell, 1997), or simply because they think it's important in and of itself (Thomas & Clark, 2003).

As workforce composition changes, so too do the attitudes and expectations of workers. Culturally, our advanced industrialized society has seen a shift from a focus on economic and physical security above all else to an emphasis on quality of life and belongingness and the needle is always moving – after a few years, “one must get *more* of a given thing to attain an above-average level of subjective well-being” (Inglehart, 1990, p. 246). This shift has been overt in recent years as the workforce feels the impact of the Great Resignation following the COVID-19 pandemic. The pandemic made many individuals reconsider their priorities, relationship with work, and how their companies support or hinder the increased demand for work-life balance, as evidenced by involuntary terminations plummeting to only one-in-four total separations (Sull et al., 2022). During this time, workers have also cited toxic workplace culture as a top driver of leaving their job, and they also cite a company's failure to promote diversity, equity, and inclusion as a key element of a toxic culture (Sockin, 2021). The need to address turnover is especially prevalent in manufacturing, where companies are struggling to attract skilled workers

to roles with little room for flexibility (Horton, 2021). According to the US Bureau of Labor Statistics, the manufacturing industry faced 24.1% total separations (layoffs, quits, terminations) in 2012, which ballooned to 44.2% in 2020. Although numbers have dipped slightly following the pandemic (39.9% in 2021), 2022 levels (39.8%) were on par with 2021, exceeding the 31.6% of total separations seen prior to the pandemic in 2019. While women and racial minorities compose a small proportion of the US manufacturing workforce, they too are impacting turnover rates, meaning their representation is dwindling even further (Wellener et al., 2021). Preventing turnover is of pragmatic importance to organizations, considering turnover costs companies .5-2x the amount of an employee's annual salary (Gandhi & Robison, 2021), but it's also a matter of sustainability; The Great Resignation has shifted the power dynamic from organization to worker and it would be prudent for organizations to address turnover now, especially for the underrepresented minorities who are expected to near majority by 2050.

Despite the high levels of turnover in US manufacturing, there is little research on US manufacturing workers specifically. Manufacturing research tends to focus on global samples (e.g., Ahmed et al., 2016; Choi et al., 2017; D'Netto et al., 2014; Fritzsche et al., 2014; Kunze et al., 2021; Teruel et al., 2015), and studies examining the effects of diversity on employee attitudes and turnover in manufacturing tend to focus on gender given the lack of female representation in the industry (e.g., Abbey & Adu-Danso, 2022; Ali et al., 2011; Avachat, 2021; Fritzsche et al., 2014; Karakhan et al., 2021; Teruel et al., 2015). Considering that diversity is studied so narrowly in the manufacturing literature and yet a lack of company emphasis on diversity, equity, and inclusion is a driving force behind toxic workplace culture, which can impact turnover, the current study seeks to examine the impact of race and minority/majority

status on perceptions of diversity climate, feelings of belonging, and turnover using a sample of US manufacturing workers based in plants across 43 geographically dispersed locations.

Why Diversity Matters

Diversity management efforts, especially those designed to promote inclusion, have exploded in organizations in the recent decade. Despite this, the varied emphasis on different characteristics of diversity (e.g., age, race, gender) has resulted in mixed outcomes of diversity and in the manufacturing industry, the impact of diversity is especially questionable given the narrow scope of current research. In general, there have been several positive outcomes associated with increased diversity including higher levels of attraction to the organization by future employees (Robinson & Dechant, 1997), improved corporate image (Cox Jr., 1993; Robinson & Dechant, 1997), increased productivity through the use of multiple perspectives in decision making (Abbey & Adu-Danso, 2022; Mannix & Neale, 2005), increased performance (Mor Barak et al., 2016; Richard, 2000; Sacco & Schmitt, 2005), enhanced strategic planning (Walia & Malik, 2015), greater creativity and innovation (Bantel & Jackson, 1989; Hospers, 2003; Richard et al., 2013), and increased levels of organizational commitment (Giffords, 2009) and job satisfaction (Acquavita et al., 2009). However, for nearly each of these outcomes, there is research that suggests the positive relationships are actually negative. Some researchers have found that diversity can negatively impact performance (Joshi & Roh, 2009; Sacco & Schmitt, 2005), decrease retention and increase lost revenue (Mor Barak et al., 2016), and may do so through an increased amount of conflict in the work group due to differences in demographic composition (Pfeffer, 1983). Some researchers suggest that these negative impacts are particularly salient for groups with high racial diversity, suggesting that racial diversity in particular is related to greater communication problems within teams and a lack of cohesion

resulting in higher turnover than more racially homogeneous teams (D'Netto et al., 2014; Milliken & Martins, 1996; Williams & O'Reilly, 1998). Kochan et al. (2003) found that for performance, gender diversity had no effect or positive effects on team processes and performance whereas racial diversity tended to have negative effects on team processes and performance. Roberson (2019) suggests that these negative impacts on team processes could be due to race being a more observable diversity characteristic than something like educational background, while others suggest that prejudices held by coworkers create an uncomfortable working environment that result in decreased productivity (Dhuppar, 2015) potentially through diverse employees recognizing real or perceived injustice by their organization or coworkers (Mamman et al., 2012).

It is difficult to know if these findings on the impact of race generalize to the manufacturing given that diversity is often explored only in terms of gender due to the predominance of males in the industry. Of the work on gender diversity, many studies suggest gender diversity yields positive outcomes such as enhanced openness and flexibility (Choi et al., 2017). Moreover, Fritzsche et al. (2014) found that the presence of females on work teams resulted in less absenteeism and enhanced performance in European automotive manufacturers. Despite this, in a study of Australian manufacturing organizations, D'Netto et al. (2014) found that employers in this industry still mainly view diversity as a legal requirement instead of a value add, and do not see diversity practices implemented as part of performance appraisal and note a lack of career planning and progression policies for ethnically diverse employees. There is scant literature on the impact of diversity on manufacturing organizations or employees within manufacturing, especially when it comes to racial diversity, and critics of industrial-organizational psychology research note that employee research largely fails to study blue collar

and marginalized workers (Maynard & Ferdman, 2009). US manufacturing is geographically dispersed throughout the country, meaning that organizations are hiring manufacturing workers of diverse backgrounds in regards to characteristics beyond just gender. Given the mixed outcomes of diversity, it is worth exploring these potential outcomes in the manufacturing industry where the focus on racial diversity and the use of US samples has been sparse. Although D'Netto et al. (2014) suggests manufacturing may be behind in their efforts, the company studied here has made concerted efforts to enhance both diversity and inclusion in recent years, and thus is ripe for examination.

Categorical and Relational Diversity

While diversity can be broadly defined as any differences in the make-up of individuals within a work unit (Mor Barak et al., 2016; Richard, 2000; Sacco & Schmitt, 2005), there are several approaches to conceptualizing the term. One such approach is a categorical approach, which considers diversity to be a personal attribute of individuals (Roberson et al., 2017). Early work in this area categorized diversity based on visible and non-visible differences, as visible differences were deemed more likely to evoke stereotypes and bias (Milliken & Martins, 1996). A more widely cited categorical approach categorizes diversity as either surface-level or deep-level. Surface-level diversity includes overt demographic differences like age, sex, and race (Harrison et al., 1998). It is believed that individuals use these obvious differences to classify themselves and their peers and may positively evaluate those who share the same surface-level characteristics as them (Harrison et al., 2002). On the other hand, deep-level diversity is based on covert psychological differences such as personality traits, beliefs, and attitudes (Harrison et al., 2002). These characteristics operate similarly to surface-level in that individuals are attracted to and positively evaluate peers who appear to have similar underlying traits, beliefs, or attitudes. A

noted limitation of the two-factor categorizations detailed above is that they only allow for the measurement of a narrow scope of variables, and often, only one particular characteristic (e.g., age) becomes the focal point, as opposed to considering the interaction between all characteristics that fall under each category (Mannix & Neale, 2005). Despite these limitations, the current study does include race as a categorical variable, as race is overt and cannot be changed, thus providing a foundation for social categorization.

A step more complex than the categorical approach are proportional approaches, which aim to consider context more so than categorical approaches and focus on the distribution of demographic characteristics amongst a group. Born from social identity theory theory (Turner & Tajfel, 1982), it's suggested that an individual's sense of self is shaped by their membership in a group (like those formed by race) and because they want to perpetually enhance this sense of self and identity, they emphasize their similarities to the group by comparing their group to groups in which they do not belong. The emphasis is on one's relative standing amongst the group, and not the absolute characteristic itself, and researchers aligned with the proportional approach posit that being different from others in a group can have deleterious effects for the 'different' individual (van Knippenberg et al., 2004). The current study also includes racial dissimilarity, operationalizing it as the proportion of one's race relative to the others at their plant. Research on racial diversity tends to assume minority status is fixed and is based on minority status at a national level (e.g., Avachat, 2021; Choi et al., 2017; Cletus et al., 2018; Mannix & Neale, 2005). This is not necessarily the case, however, as one could be classified as a racial minority member based on relative standing to the US population, but be classified as a racial majority member relative to others in their immediate work context. Much like personality research suggests work-contextualized assessments best predict work-outcomes (Burtaverde & Iliescu,

2019; Shaffer & Postlethwaite, 2012), the current study suggests research should not conflate categorical race with minority standing, and proposes that conceptualizing diversity as racial dissimilarity relative to the immediate work context is likely more influential on work-related outcomes and sentiment than a distal context (e.g., minority status at the national level).

Effects of Diversity on Belongingness

Diversity is only one side of the coin, as conversations in organizations around inclusion are also prevalent. Although inclusion and diversity are often used synonymously in everyday speech, they are unique constructs (Mor Barak, 2015). While diversity refers to demographic and psychological differences among individuals, inclusion refers to the behavioral involvement of employees in organizational systems (Roberson, 2006) and the perception that their participation in the organization and its formal and informal processes are encouraged (Mor Barak et al., 2016). Inclusion also includes sentiments of belongingness, which stems from feeling like a welcomed and valued member of a group (Ross, 2019), and there is much research to suggest that belongingness is negatively related to turnover intention (Jeswani et al., 2012; Randel et al., 2018; Waardenburg, 2016). While there is a dearth of empirical studies investigating drivers of belongingness in the workplace (Filstad et al., 2019), there is some research to suggest that racial minorities are more likely to feel worried about belongingness (Ross, 2019) and more specifically, that White employees feel the highest rates of belongingness at work (Rivera Beckstrom & Van Dam, 2022). Social identity threat theory (Steele & Aronson, 1995) suggests that different social groups experience different psychological outcomes in the same environment due to the sociocultural history tied to their group (Emerson & Murphy, 2014), which is particularly salient for racial minority groups who have experienced a history of stereotyping and exclusion and means their members have heightened sensitivity to cues for

inclusion in the workplace (Bergsieker et al., 2010). Paired with homophily theory (McPherson et al., 2001) that purports that social similarity facilitates communication, trust, and social integration, these theories suggest that no matter what the demographic composition of the immediate work environment, traditionally marginalized groups may feel less belongingness than traditionally dominant groups and may be more likely to turnover (Kmec, 2007).

H1: Belongingness is negatively related to turnover.

H2: Belongingness partially mediates the positive relationship between categorical race and turnover, such that being an employee of color will be negatively related to belongingness and positively related to turnover.

From a status theory lens, Kanter (1977) suggested that demographically dissimilar employees may feel a lack of social integration as perceived low status minorities may face increased conflict as they are more conspicuous and may be more likely to be the targets of injustice and cannot change observable characteristics about themselves that would allow them to acquire the dominant group's attributes. However, the relational demography theory (Tsui et al., 1992) suggests that this conflict may be contextual, as demographic similarity at the individual level can positively impact social relationships but attraction to certain demographic characteristics is dependent upon the relative standing of one's demographic characteristic compared to the rest of the group (Riordan & Shore, 1997; Tsui et al., 1992). For example, in a study of employees in an electronics firm, Zenger and Lawrence (1989) found that the more similar in age one was relative to the rest of the group, the more often they communicated with group members regarding technical issues. Tsui et al.'s (1992) theory outlines the punishing effects demographic dissimilarity can have, negatively affecting affect, attitudes, and social relationships, each of which can impact work group productivity, cohesiveness, and desire to

stay with the organization (Riordan & Shore, 1997; Tsui et al., 1992). This is closely related to the similarity-attraction paradigm (Byrne, 1971), whereby individuals are attracted to others that are similar to them in personality, attitude, and beliefs. According to this theory, if the employee is embedded in a context where they are dissimilar to the majority of their colleagues, they should feel less attracted to their colleagues and be less socially integrated, which may lead to weaker interpersonal bonds, increased conflict, and a lesser sense of belongingness (Byrne, 1971; Sacco & Schmitt, 2005). As such, it is not only categorical race that could influence belongingness and turnover, but there is much research to suggest racial dissimilarity amongst one's colleagues can negatively impact belongingness and turnover as well.

H3: Belongingness partially mediates the positive relationship between racial dissimilarity and turnover, such that increased racial dissimilarity is negatively related to belongingness and positively related to turnover.

As aforementioned, it is suspected that racial dissimilarity will have more of an impact on work-related outcomes than categorical race, given that is contextualized relative to the work environment. Several researchers in recent years (e.g., Burtaverde & Iliescu, 2019; Fisher et al., 2017; Seiler, 2011) have found that providing a frame of reference in personality assessments that relates the personality item to work (e.g., adding "at work" to the end of a Big Five personality item) enhances the prediction of work-related outcomes such as job engagement, job satisfaction, and absenteeism (Burtaverde & Iliescu, 2019). On the basis of past research on work-contextualized predictors more strongly predicting work-relevant outcomes, it is expected that a work-contextualized definition of racial diversity (i.e., racial dissimilarity at work) will more strongly predict theoretically relevant outcomes (i.e., belongingness at work, turnover) than non-contextualized definitions (e.g., categorical race). This is because people live in and across

contexts and not in general. The psychological experience of belongingness are likely more associated and experienced relative to the particular contexts people chronically find themselves, shifting and changing as they move between contexts more than being a fixed sense based on categorical race, which is relative to national racial demographic representation. This is underscored by social psychology research that suggests comparison concerns intensify as the proximity to a standard increases (Garcia et al., 2013; Poortvliet et al., 2009; Zink et al., 2008).

H4a: The direct effect of racial dissimilarity on turnover is larger than the direct effect of categorical race on turnover.

H4b: The indirect effect of racial dissimilarity through belongingness on turnover is larger than the indirect effect of categorical race through belongingness on turnover.

Diversity Climate: A Multilevel Perspective

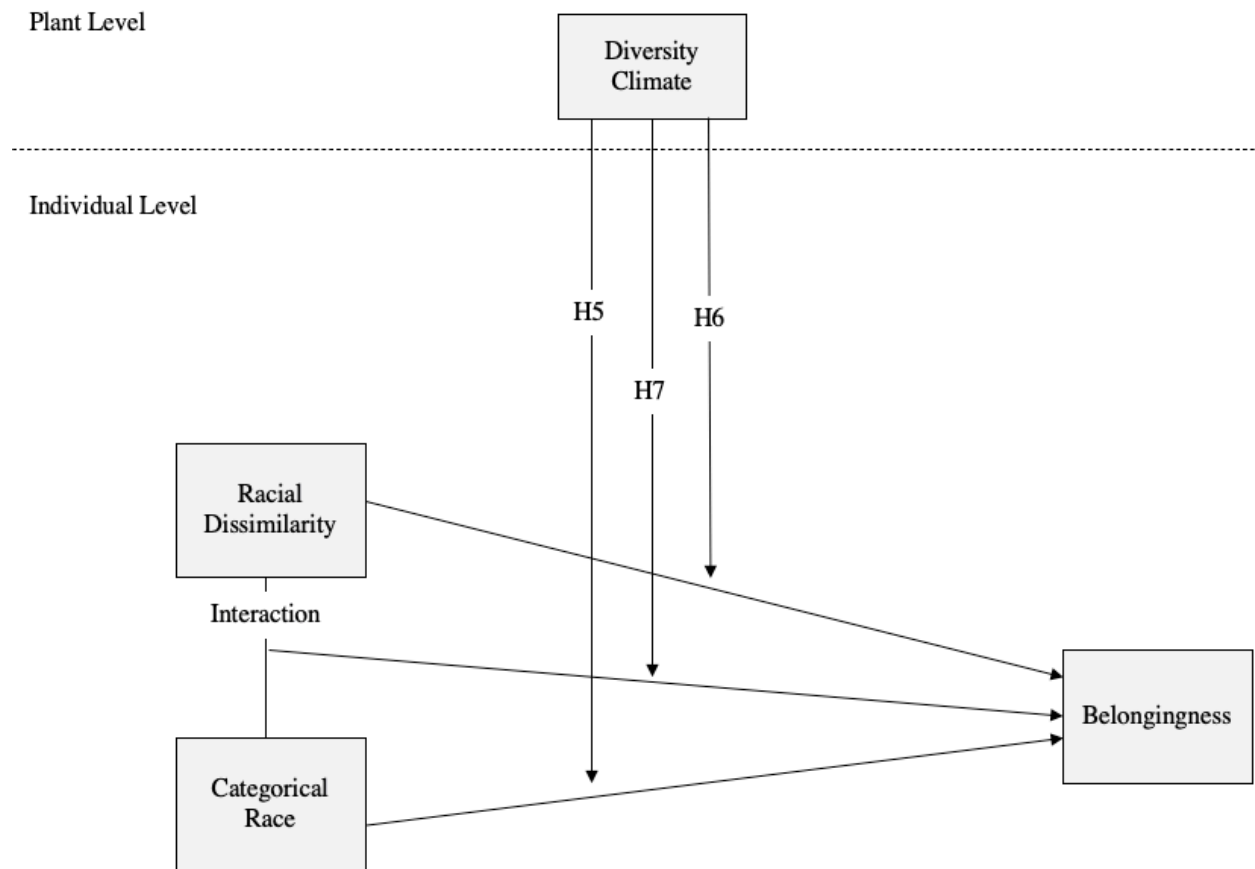
Diversity climate refers to how the organization reflects their diversity values and the individual uses this information to determine the degree of fit between the organization's espoused values and their own (McCann & Aravamudhan, 2013). Importantly, though, climate is considered a higher-order variable, as it is comprised of the perceptions employees share (Schulte et al., 2006), like the collective reactions to the organization's (or in this case, plant's) efforts to promote diversity (Kossek & Zonia, 1993). Specifically, diversity climate includes perceptions of the existence and enforcement of relevant policies such as affirmative action, the diversity reputation of the organization, commitment to diversity by top management, and the tendency to promote inclusion of all employees (Avery & McKay, 2006). It should also include information about fair appraisals, rewards, and promotions, equitable access to job-related information, and information on job advancement and development opportunities (McCann & Aravamudhan, 2013).

Proposed Conceptual Model

Given that there is strong empirical evidence to suggest the negative relationship between belongingness and turnover (e.g., Jeswani et al., 2012; Randel et al., 2018; Waardenburg, 2016), and that this relationship will be explored through Hypotheses 1-4, the rest of the hypotheses in the current study are focused on exploring the under-studied drivers of belongingness in conjunction with examining the impact of diversity climate, as organizations tend to focus on enhancing inclusion and diversity simultaneously (Ferdman, 2013).

Figure 1 presents the conceptual model that will be explored. Although similar to Gonzalez & DeNisi's (2009) model in how the effects of diversity climate on both categorical and relational demographics are conceptualized, the current study seeks to examine the impact of race on belongingness in light of diversity climate. According to the model below, categorical race and racial dissimilarity influence perceptions of belongingness, which will be explored through Hypotheses 1-4, as described above. However, diversity climate moderates these relationships, as well as the relationship between the interaction of categorical and proportional definitions of race and belongingness. In other words, employees of different races may respond differently (e.g., feel more or less belonging) to their plant's diversity climate depending upon their level racial dissimilarity at their plant.

Figure 1
Proposed Conceptual Model



Diversity Climate, Race, and Belongingness

Diversity climate is thought to influence affective outcomes like job satisfaction and belongingness through signaling. Signaling theory argues that an employee's perception of their organization's values are shaped through cues given by the organization through policies, procedures, and practices (Spence, 1973). Organizations signal their diversity values in several ways including mission statements, written goals and values, employee benefits and job requirements, compensation practices, and organizational efforts (both in initiatives and financial investment) to promote diversity and inclusion (Avery et al., 2007; Downey et al., 2015; Walker et al., 2012). Employees assign meaning to these signals and aggregate signals to compose

overall perceptions of an organization's diversity climate (Schneider & Reichers, 1983).

According to the group-value model (Tyler, 1989), how an organization signals diversity climate can cause employees to feel more or less valuable to the organization and can impact their overall feeling of belongingness. Given that policies to promote diversity seek to enhance the integration of traditionally marginalized groups, an organization with a supportive diversity climate may enhance belongingness among people of color. Thus, if an organization is perceived to have an adverse diversity climate, the opposite may be true, as the organization would be signaling to people of color that they are not valued.

H5: Diversity climate moderates the impact of categorical race on belongingness such that belongingness is higher for White employees than employees of color when diversity climate is low.

It may also be that, in general, the diversity climate of an organization influences demographic identity salience. Brickson (2000) discusses how identity orientation influences diversity effects such that signals of diversity climate (e.g., reward structures, performance measurement, work organization) activate personal, collective, or relational identity orientations, which have differential effects for majority and minority group members. In organizations that signal static group membership by failing to emphasize and reward the value of all employees (i.e., a low diversity climate), minority group members are less likely to feel integrated in the organization (Brickson, 2000). Furthermore, belonging uncertainty (Walton & Cohen, 2007) underlies why non-dominant groups may be sensitive to cues in their environment that signal inclusion. Belongingness uncertainty encapsulates the feeling of, "*people like me do not belong here*" (Walton & Cohen, 2007, p. 83) and can guide one's perception of their environment such that cues that seemingly confirm the "I don't belong here" sentiment stand out among the rest,

whereas cues that disconfirm the sentiment are met with skepticism instead of ready acceptance (Walton & Cohen, 2007). Unsurprisingly, belonging uncertainty can result in anxiety as individuals question their social belongingness and the extent of said anxiety is dependent on the environmental cues and experiences of inclusion (Brady et al., 2020). Non-dominant groups are particularly at risk, as belonging uncertainty arises when individuals question their ability to assimilate in the dominant group (Rainey et al., 2018).

H6: Diversity climate will moderate the impact of racial dissimilarity on belongingness such that dissimilarity effects are stronger when diversity climate is low and weaker when diversity climate is high.

Moreover, the effect of diversity climate on identity salience and subsequent impact on belongingness may be stronger for people of color when the proportion of racially similar others at work is low. As aforementioned, an individual's sense of self is shaped by their membership in a group (Turner & Tajfel, 1982), and they wish to belong to groups with members who are similar to them and evaluate themselves by comparing their opinions to those deemed similar to them (Festinger, 1954). This social comparison underlies the resulting trust in the in-group and discrimination against the out-group but holds that while people do want to feel similar to their group (Greenberg et al., 2007), they also desire to be accepted for their uniqueness (Brewer, 1991). These mechanisms are compounded for traditionally marginalized races that are minority group members at their organizations, especially when perceived diversity climate is low, as they are considered members of the 'out-group' both according to relative demography and the organization signaling that underrepresented races (categorical demography) are not valued.

H7a: Diversity climate and categorical race interact to moderate the effects of racial dissimilarity on belongingness. Dissimilarity effects are greater for employees of color than White employees when diversity climate is low.

Relatedly, dissimilarity effects may be greater for White individuals when diversity climate is high. Research has demonstrated that White employees can be averse to an organization's efforts to address racial inequality due to perceived threats to social dominance and status (Eibach & Keegan, 2006). By nature, humans are attuned to environmental signals of belongingness (Pickett et al., 2004) and while research has tended to focus on racial minority's perceptions of these cues given their more typical risk of being excluded, Plaut et al. (2011) suggests White individuals are similarly attuned to signals of belongingness and an organization's efforts to promote diversity may engender feelings of exclusion among White employees. Although research has found that White employees feel a higher level of belongingness than employees of color (Rivera Beckstrom & Van Dam, 2022), this may be because of the common conflation of race with majority/minority standing, as it is unclear if these findings are due to race or the fact that White employees are often the majority group in their workplace (at least in the US). Although White employees across workplace locations may be members of the racial majority, employees can be classified as majority or minority group members at the level of their individual workplace (e.g., offices, plants, etc.); if White employees are the racial minority at their workplace, they may feel lower rates of belongingness at work than employees of color who are the majority group at that location, and this could be particularly true when diversity climate is high.

H7b: Diversity climate and categorical race interact to moderate the effects of racial dissimilarity on belongingness. Dissimilarity effects are greater White employees than employees of color when diversity climate is high.

This hypothesis is important to explore given research to suggest that the success of an organization's diversity efforts hinges on the support of societally dominant groups (Plaut et al., 2011), and conclusions could support prior literature that emphasizes enhancing diversity along is not enough – diversity efforts must be managed and facilitated to fully realize its benefits and prevent intergroup conflict (Roberson et al., 2017; van Knippenberg et al., 2004).

Method

Participants and Procedure

The sample consisted of 2,319 hourly employees who work for a large composite material company based in the Midwest. Hourly employees were the focus, as salaried employees at the plant most often represent business functions outside of manufacturing, such as human resources, and work in office environments that much more closely resemble corporate environments than plant environments. Moreover, hourly employees represented 82% of the voluntary turnover seen at the company in 2022, thus setting the organization's focus on reducing turnover in hourly positions rather than in salaried positions.

Employees in the sample were spread across 43 plants within the United States. In November of 2021, all employees at the company were asked to complete a survey regarding the company's diversity climate and personal feelings of belongingness. The sample consisted of 87.37% males and of all the participants, 59.77% identified as White, 20.83% Black, 17.29% Hispanic, and 2.11% Other. Employees ranged in age from 18 to 76 ($M = 44.07$, $SD = 12.39$). Of the 43 plants in the sample, 12 (28%) had a non-White majority population: seven of which were

majority Hispanic employees and five of which were majority Black employees. Those 12 plants include 1,225 of the 2,319 total respondents (52.82%).

Measures

Categorical Race

Categorical race was measured using dummy variable coding with White as the reference group such that 0 = White, 1 = all other races. This was congruent with the study's hypotheses that conceptualized categorical race as White employees and employees of color.

Racial Dissimilarity

Euclidian distance was used to calculate racial dissimilarity (Tsui & O'Reilly, 1989). The racial dissimilarity score is the difference between the employee and all other employees at their plant based on race using the formula below (O'Reilly et al., 1989; Tsui et al., 1992; Tsui & O'Reilly, 1989). This formula is the square root of the summed differences between an employee's value on a specific demographic variable (S_i) and the value on the same variable for every other employee (S_j) in the sample for the plant, divided by the total number of respondents in the plant (n ; Tsui et al., 1992).

Figure 2

Euclidean Distance Formula from Tsui et al. (1992)

$$\left[\frac{1}{n} \sum_{j=1}^n (S_i - S_j)^2 \right]^{1/2}$$

These differences in race were measured by a score ranging from 0 to approaching 1. For example, if a plant had 20 Black employees, 30 Hispanic employees, and 50 White employees, the relational score for a Black employee would 0 (for being the same as all other Black employees) + 30 (for being different from all Hispanic employees) + 50 (for being different from

all White employees). This is then divided by the total number of employees at the plant (100) and the square root of this ratio yields a racial dissimilarity score of .89. In comparison, the racial dissimilarity score would be .84 for a Hispanic employee and .71 for a White employee. In this way, a larger value indicates a larger racial difference between an employee and others in their plant.

Diversity Climate and Belongingness

Perceptions of diversity climate and belongingness were collected as part of the same organizational survey administered in November 2021. Each measure was developed internally as part of an iterative process led by a member of the HR People Science team who has expertise in measure design. Step one in the process was to conduct a review on how diversity climate and belongingness are operationalized in the literature. Step two was then to compare these operationalizations to external measures of the construct to establish a foundational understanding of how similar organizations operationalize diversity climate and belongingness. Step three was to select items from external measures and edit them to align with the company's diversity, equity, and inclusion (DEI) strategy. In step four, items were reviewed with a DEI steering committee (which included the Vice President for DEI) to gather feedback and items were revised accordingly. Lastly, in step five, items were tested with focus groups comprised of hourly plant workers dispersed across geography, business unit, and role to ensure respondents understood the language of the items and perceived alignment between the measures and the company's DEI strategy. Items were edited for clarity in accordance to their feedback and the measures were subsequently administered.

Diversity Climate. Diversity climate items were developed based on the 6-item organizational fairness subscale ($\alpha = .92$) of Mor Barak et al.'s (1998) Diversity Perception

Scale. Item stems were changed to reflect the name of the company. Additional items were included at the behest of company leaders to gain insight into overall perceptions of the recent company focus on I&D and company-specific I&D initiatives. Overall, the measure of diversity climate contained 11 items that addressed how the company's policies and procedures promote diversity, if the company values diversity, if the company hires and promotes employees with diverse backgrounds, and if I&D efforts create a positive impact. Items are confidential to the company but a sample item was, "[Company name] hires people from diverse backgrounds." Items were rated on a five-point Likert-type scale (1 = Strongly Disagree, 3 = Unsure, 5 = Strongly Agree) and internal consistency of the measure was adequate ($\alpha = .93$).

Diversity climate was aggregated to the plant level for analysis. Chan (1998) recommends using a direct consensus model for higher-order aggregation when the construct of interest represents shared perceptions at the lower level. As such the within-group agreement index was calculated for each plant. The $r(wg_i)$ scores ranged from .80 to .97 with an average of .92, indicating strong interrater agreement (LeBreton & Senter, 2008). ICC(1) is an estimate of effect size that indicates the extent to which individual ratings can be attributed to group membership, and ICC(2) estimates the reliability of mean ratings formed by a group of raters (Shieh, 2016). In this case, the ICC(1) value was .07, indicating a small to medium effect of group membership, or between-group variance (LeBreton & Senter, 2008). The ICC(2) value was .78, indicating excellent reliability of the group means (Fleiss, 1986). These combined support the case of examining diversity climate at the plant level.

Belongingness. Belongingness items were developed based on Cockshaw and Shochet's (2010) framework that considers one's perceived relational value with respect to coworkers (e.g., 'I feel valued by my teammates'), leadership (e.g., 'My leader regularly shows appreciation for

the knowledge, skills, and experience I bring to the team'), and the general organizational context (e.g., 'I feel like a real part of my plant'). The measure of employee belongingness included 7 items that addressed how employee opinions are valued when they speak up at work, how comfortable employees feel sharing their perspective with team members, how valued employees feel by colleagues, how leaders show appreciation for one's knowledge and skill, and how life circumstances are treated with respect. A sample item was, "I feel comfortable sharing my perspective, even when it differs from the perspective of my team members." Items were rated on a five-point Likert-type scale (1 = *Strongly Disagree*, 3 = *Unsure*, 5 = *Strongly Agree*) and internal consistency of the measure was adequate ($\alpha = .87$).

Turnover

Termination dates were obtained from organizational records. Survey collection of the diversity climate and belongingness measures occurred in November 2021. Turnover data was collected at the end of 2022. Turnover was coded as a binary variable (0 = did not voluntarily turnover by the end of 2022, 1 = did voluntarily turnover by the end of 2022). The date and reason for turnover were also collected. Involuntary terminations and retirements do not count as voluntary terminations. In all, 212 of the 2,319 in the sample described above voluntarily terminated employment with the company between the time of the survey and December 31, 2022.

Control Variables

According to best practice, control variables should be those that are theoretically and empirically related to the focal variables and can be measured reliably (Bernerth & Aguinis, 2016). Relational demography suggests that employees who share similar qualities (such as gender, age, and tenure) may experience enhanced work-related attitudes and behaviors.

Moreover, empirical literature has demonstrated the relationships of gender, age, and tenure to both belongingness (e.g., Faulkner, 2011; Rahn et al., 2021; Veldman et al., 2017) and turnover (e.g., Healy et al., 1995; Latha, 2013; Ng & Feldman, 2009; Taylor et al., 1996; Wickramasinghe, 2016). As such, these variables were included as controls to ensure that the effects of categorical race and racial dissimilarity remain after inclusion of the most common correlates of belongingness.

Analyses

Data Preparation

Surveys were returned by 2,319 of 4,641 employees (response rate = 50.67%; full response rate = 46.80%; partial response = 3.87%). Since less than 10% of the respondent sample is composed of partial respondents, pairwise deletion is appropriate in the case of missing values instead of estimating missing values via maximum likelihood or multiple imputation (Newman et al., 2014). Plant-level response rates were examined by race to assess if there were significant differences in the races (by plant and across plant) that did and did not complete the survey, but there were no significant differences in non-response rates.

Statistical Analysis

Hypotheses 1-4 were tested through mediation models, which was done using structural equation model (SEM) approach. Using SEM to test mediation is advantageous to Baron and Kenny's (1986) four-step regression approach for several reasons including enhanced estimation of latent variables (e.g., belongingness) and because there is research to suggest a model can still exhibit mediation even when the direct path(s) are not significant (Zhao et al., 2010). The predictors were tested in two separate mediation models given that the hypotheses are focused on each predictor alone, and are not interested in the variance of each predictor above and beyond

the other. Bias-corrected bootstrapping was used to estimate the 95% confidence intervals for the indirect effects and the difference between direct and indirect effects for each model.

Bootstrapping is preferred over multivariate delta methods (i.e., comparing standard error for the product of the coefficients to a standard normal distribution to infer the indirect effect's significance level) because it does not assume a normal distribution, and it is appropriate for large samples ($N > 80$; Caughlin, 2022; Koopman et al., 2015). As such, Mplus (Muthén & Muthén, 2007) was used to estimate indirect effects using the bootstrapped confidence interval based on 5,000 samples.

Hypotheses 5-7 were tested in Mplus (Muthén & Muthén, 2007) using hierarchical linear modeling given that it accounts for the non-independent nature of the data that is inherent considering the nested nature of employees working in plants. Analyses were comprised of two levels (Level 1 = individual, Level 2 = plant). Level 1 variables included categorical race, racial dissimilarity, belongingness, and turnover. The Level 2 variable included diversity climate. The Level 2 variable was centered around the grand mean to facilitate interpretation, meaning conclusions regarding a plant's diversity climate entailed whether their diversity climate is above or below the average diversity climate of all plants. Age, tenure, and racial dissimilarity were cluster-mean centered at Level 1, so that 0 represents the average age, average tenure, and average racial dissimilarity at that plant. The model contained random intercepts and fixed slopes, as it was believed the average level of belongingness differed across plants (hence the inclusion of random intercepts), but it was suspected that the effect of diversity climate on belongingness only differed due to race, which was already accounted for in the model (thus fixing slopes).

Results

Hypotheses 1-4: Race, Belongingness, and Turnover

Variable means and intercorrelations can be found in Tables 1 and 2. Results of a logistic regression model revealed Hypothesis 1 was supported, as a one unit increase in belongingness was associated with a 32% reduction in the odds of voluntary turnover ($b = -.39, SE = .08, p < .001$).

Hypothesis 2

Categorical race was first coded where 0 = White employees and 1 = employees of color. Categorical race was significantly associated with belongingness ($b = .17, SE = .04, p < .001, 95\% CI [.10, .24]$), suggesting being an employee of color is associated with higher belongingness compared to White employees. There was no direct effect of categorical race on turnover. Of the control variables, tenure was significantly related to belongingness ($b = -.01, SE = .00, p < .001, 95\% CI [-.02, -.01]$) such that employees of higher tenure experienced lower levels of belongingness than newer employees, though this effect was small. The R^2 estimate for belongingness was .02 ($SE = .01, p < .001$), indicating only 2% of the variance seen in belongingness was explained by the predictors. Both age ($b = -.02, SE = .01, p < .01, 95\% CI [-.04, -.01]$) and tenure ($b = -.11, SE = .02, p < .001, 95\% CI [-.15, -.08]$) exhibited significant, negative direct effects on turnover, such that a one year increase in age was associated with a 1.98% reduction in the odds turnover while a one year increase in tenure was associated with a 10.41% reduction in the odds turnover. The R^2 estimate for turnover was .38 ($SE = .01, p < .001$), indicating 38.90% of the variance seen in turnover was explained by the predictors.

Mediation results revealed a significant indirect effect ($b = -.07, SE = .02, p < .001, 95\% CI [-.11, -.03]$). Although this would appear to support Hypothesis 2, it was predicted that being

an employee of color would be negatively related to belongingness and positively related to turnover, but results suggest employees of color experience higher levels of belongingness than White employees and this higher level of belongingness is associated with less turnover. Full results can be seen in Table 3.

Exploratory Analyses. In order to explore if the direct effects of categorical race on belongingness and turnover differed by racial minority subgroup (Black, Hispanic, and Other, relative to White employees), additional mediation analyses were performed in which the categorical race variable was replaced with dummy coded race variables for each racial minority subgroup (0 = White, 1 = racial subgroup). Minority racial subgroups included Black employees, Hispanic employees, and Other employees, relative to White employees. The Other category included Asian, American Indian/Alaskan Native, Hawaiian or Other Pacific Islander, and two or more races. These were merged given their individually small samples sizes that when combined reach an n of 49.

For Hispanic and Other employees, there was a significant effect of race on belongingness, such that each group was associated with a higher level of belongingness than White employees (Hispanic: $b = .20$, $SE = .05$, $p < .001$, 95% CI [.10, .29]; Other: $b = .43$, $SE = .10$, $p < .001$, 95% CI [.22, .63]). However, there was not a significant effect of Black race on belongingness. Furthermore, in no case was there a significant direct effect of racial minority subgroup on turnover.

There was a significant indirect effect for Hispanic race ($b = -.08$, $SE = .03$, $p < .001$, 95% CI [-.14, -.04]) and for Other race ($b = -.17$, $SE = .06$, $p < .001$, 95% CI [-.30, -.08]). This suggests that compared to White employees, being a Hispanic employee is associated with higher belongingness and less turnover, and being an Other employee is associated with higher

belongingness and less turnover. Although the indirect effects were significant, this does not support the direction predicted by Hypothesis 2. The indirect effect for Black race was not significant.

Of note, in each exploratory model, belongingness maintained a significant negative relationship with turnover, tenure maintained a negative relationship with belongingness, and both age and tenure exhibited a negative direct effect on turnover (see Tables 4-6).

Hypothesis 3

Much like categorical race, racial dissimilarity had a positive association with belongingness ($b = .51, SE = .08, p < .001, 95\% CI [.37, .87]$), but no direct effect on turnover. The effects of tenure and age were the same as in the model with categorical race such that tenure had a negative relationship with belongingness and age had no significant relationship with belongingness. The R^2 estimate for belongingness was .04 ($SE = .01, p < .001$), indicating only 4% of the variance seen in belongingness was explained by the predictors. The R^2 estimate for turnover was .38 ($SE = .06, p < .001$), indicating 38.10% of the variance seen in turnover was explained by the predictors.

There was a significant indirect effect ($b = -.22, SE = .05, p < .001, 95\% CI [-.34, -.12]$), suggesting the relationship between racial dissimilarity and turnover is partially mediated by belongingness such that racial dissimilarity is negatively related to turnover through increased belongingness. Although the mediation was significant, Hypothesis 3 was not supported, as racial dissimilarity was predicted to be negatively related to belongingness and positively related to turnover, but the observed relationships were in the opposite direction. See Table 7 for a summary of results.

Hypothesis 4

To test if there was a significant difference in the direct and indirect effects of racial dissimilarity and categorical race, the direct and indirect effects were named as parameters in Mplus using the “model constraint” command, and the equality of the parameters were subsequently tested using the “model test” command. Mplus constructed 95% bias-corrected bootstrapped confidence intervals around the difference in standardized direct and indirect effects to test the null hypothesis that effects were equal. Hypothesis 4a predicted that the direct effect of racial dissimilarity on turnover would be larger than the direct effect of categorical race on turnover. Although racial dissimilarity and categorical race did not have significant direct effects on turnover, analyses revealed racial dissimilarity did have a significantly larger effect on turnover than categorical race (0 = White, 1 = employees of color; $\beta = -.25$, $SE = .07$, $p < .001$, 95% CI [-.38, -.10]).

Hypothesis 4b predicted the indirect effect of racial dissimilarity through belongingness on turnover would be larger than that of categorical race, and indeed, racial dissimilarity had a significantly larger indirect effect on turnover through belongingness than categorical race (0 = White, 1 = employees of color; $\beta = .02$, $SE = .01$, $p = .01$, 95% CI [.01, .04]). This indicates that belongingness is mediating more of the effect of race on turnover when diversity is conceptualized as racial dissimilarity as opposed to categorical race.

Exploratory Analyses. When comparing the direct effects of the minority racial subgroups and racial dissimilarity on turnover, racial dissimilarity did have a significantly larger direct effect on turnover than Black race (compared to White employees; $\beta = -.20$, $SE = .10$, $p = .04$, 95% CI [-.40, -.02]), but the direct effects themselves were not significant. There was no significant difference in the direct effects of racial dissimilarity and Hispanic race on turnover – the direct effect of racial dissimilarity on turnover was insignificant, as was the direct effect of

Hispanic race on turnover, and the difference in their magnitude was not significant. This was also the case for racial dissimilarity and Other race, where there was no significant difference in their direct effects on turnover. Taken together, these results indicate defining diversity as racial dissimilarity has a larger impact on turnover than defining diversity as categorical race for employees of color in aggregate or Black employees, relative to White employees.

When comparing the indirect effects of the minority racial subgroups and racial dissimilarity, racial dissimilarity for each racial minority subgroup had a significantly larger indirect effect on turnover through belongingness than categorical Black race ($\beta = .05$, $SE = .01$, $p < .001$, 95% CI [.03, .08]), Hispanic race ($\beta = .03$, $SE = .01$, $p = .02$, 95% CI [.01, .05]), and Other race ($\beta = .03$, $SE = .01$, $p = .01$, 95% CI [.01, .06]). It appears that belongingness is mediating more of the effect of race on turnover when race is defined as racial dissimilarity as opposed to when race is defined as specific racial subgroups relative to White employees. Results are listed in Table 8.

Multilevel Model: Hypotheses 5-7

Before delving into each specific hypothesis, it's worth noting the impact of grand mean centered diversity climate on belongingness. Initial results showed diversity climate had a significant, positive effect on belongingness ($b = 1.03$, $SE = .06$, $p < .001$, 95% CI [.90, 1.16]), indicating that for plants with a one unit increase in diversity climate compared to the average level of diversity climate for all plants, employees experienced a 1.03 unit increase in belongingness. Of the control variables, as indicated by the prior models, only tenure had a significant association with belongingness ($b = -.01$, $SE = .00$, $p < .001$, 95% CI [-.01, -.00]). These relationships persisted in the results of each hypothesis tested below.

Hypothesis 5

Hypothesis 5 predicted that diversity climate would moderate the impact of categorical race (0 = White, 1 = employees of color) on belongingness such that belongingness would be higher for White employees than employees of color when diversity climate was low. Belongingness regressed on the interaction between categorical race and diversity climate was not significant, indicating Hypothesis 5 was not supported. Results are listed in Table 9.

Hypothesis 6

Hypothesis 6 predicted that diversity climate would moderate the impact of racial dissimilarity on belongingness such that dissimilarity effects would be stronger when diversity climate was low and weaker when diversity climate was high. Belongingness regressed on the interaction between racial dissimilarity and diversity climate was not significant, indicating Hypothesis 6 was not supported. Results are listed in Table 10.

Hypothesis 7

Hypothesis 7a predicted that diversity climate and categorical race would interact to moderate the effects of racial dissimilarity on belongingness, such that dissimilarity effects would be greater for employees of color than White employees when diversity climate was low. Hypothesis 7b predicted the reverse for White employees: that dissimilarity effects would be greater for White employees than employees of color when diversity climate was high. Belongingness regressed on the interaction between racial dissimilarity, categorical race, and diversity climate was not significant, indicating Hypothesis 7 was not supported. Results are listed in Table 11.

Exploratory Analysis: Racial Subgroups

Much like before, Hypotheses 5 and 7 were tested for each racial subgroup dummy coded with White as the reference group. Results can be seen in Tables 12-14 and were consistent with

aggregated categorical race (0 = White and 1 = employees of color) in that diversity climate still had a positive association with belongingness, but the hypotheses were not supported.

Exploratory Analysis: Adding Turnover

Given that turnover was included in the mediation models, exploratory analyses were conducted in which turnover was added to the model such that belongingness had a direct effect on turnover, thus turning the model into a multilevel moderated mediation. This was explored for all multilevel models tested above, but this did not change any of the aforementioned results: belongingness negatively predicted turnover ($b = -.19, SE = .03, p < .001, 95\% CI [-.25, -.12]$) as in the mediation model and Hypotheses 5, 6, and 7 were not supported. The association between diversity climate and turnover was also examined, but it was not significant. Results are listed in Tables 15-20.

Discussion

The current study aimed to investigate the impact of categorical race and racial dissimilarity on perceptions of diversity climate, belongingness, and turnover, thus straying from past literature that has largely conceptualized diversity in manufacturing as related to gender, age, or categorical race (e.g., Avachat, 2021; Choi et al., 2017; D'Netto et al., 2014; Fritzsche et al., 2014; McCann & Aravamudhan, 2013).

The first set of hypotheses examined the role of belongingness as a mediator of the relationship between racial diversity (conceptualized as categorical race and racial dissimilarity) and turnover. Belongingness negatively predicted turnover, extending the findings of researchers like Jeswani et al. (2012), Randel et al. (2018), and Waardenburg (2016) to show belongingness not only negatively predicts turnover intention, but actual turnover as well. Although the various definitions of racial diversity (e.g., racial dissimilarity, categorical race, categorical race

subgroups) did not have significant direct effects on turnover, belongingness did have a negative direct effect on turnover and partially mediated the relationship between racial diversity and turnover for every conceptualization tested. While higher belongingness was associated with decreased odds of turnover as predicted, being an employee of color or more racially dissimilar was associated with higher levels of belongingness, which was not expected.

Results demonstrated employees of color in aggregate, as well as Hispanic and Other employees examined separately, were predictive of higher belongingness compared to White employees. Although Black race (relative to White) was not a significant predictor of belongingness, the average level of belongingness for each racial subgroup is noted in Table 2 and demonstrates that for this sample, White employees had the lowest average level of belongingness compared to Black employees, Hispanic employees, Other employees, and employees of color in aggregate. Furthermore, belongingness partially mediated the effect of race on turnover in each analysis, suggesting that employees of color (in aggregate and when in examined as separate racial subgroups) experience higher levels of belongingness and less turnover than White employees. These results are contrary to what was expected given the findings of Rivera Beckstrom and Van Dam (2022) who found White employees express higher levels of belongingness than employees of color. However, the company examined has made concerted efforts in recent years to enhance belongingness among employees of color at the plants. These initiatives have included creating an affinity group specifically directed to bring together hourly minority employees across plants, and plant-specific efforts to host “courageous conversations” in which employees are invited to openly discuss opinions on a variety of topics such as mental health, diversity in recruitment, and inclusion. Therefore, although the results are

surprising based on prior literature, they are less unexpected when considering the context of the company itself.

Similarly, racial dissimilarity was positively related to belongingness, indicating being more dissimilar from your peers is related to higher levels of belongingness. This is especially unexpected given theories such as the similarity-attraction paradigm (Byrne, 1971) and relational demography theory (Tsui et al., 1992) which in combination suggest that employees who are less demographically similar from their peers are likely to feel less socially integrated, which could lead to increased conflict and a lessened sense of belongingness. The indirect effect of racial dissimilarity on turnover through belongingness was also significant, suggesting that employees who are more racially dissimilar to their peers experience higher levels of belongingness and this is negatively associated with turnover.

The multilevel model shifted focus from turnover to diversity climate, and results revealed that diversity climate is positively related to belongingness, thus supporting theories like the group-value model (Tyler, 1989) that suggest how an organization signals diversity climate can make employees feel more or less like they are valued and belong, and in this case, signaling a more diverse climate is related to higher levels of belongingness. However, none of the predicted interactions were significant, meaning that in no instance did diversity climate moderate the impact of categorical race or racial dissimilarity on belongingness, and no support was found for the hypothesis that dissimilarity effects are greater for employees of color than White employees when diversity climate is low, or that dissimilarity effects are greater for White employees than employees of color when diversity climate is high. The lack of significant findings could be due to several reasons. For one, the lack of significant findings in the multilevel model specifically could be due to measuring variables at an inappropriate level. It

could be that examining diversity climate at the plant level was too broad – diversity climate and even racial dissimilarity may be more relevant shift-to-shift or machine-to-machine. Second, much of the research done on the impact of diversity climate has been conducted in White-collar workplaces (e.g., Avery et al., 2007), where race either is not taken into account (e.g., Enwereuzor, 2021) or is only conceptualized as categorical race (e.g., Downey et al., 2015; Kossek & Zonia, 1993). It may be that prior findings of diversity climate moderating belongingness (Enwereuzor, 2021) do not hold in blue-collar workplaces like manufacturing where jobs tend to be focused on tangible tasks (like meeting productivity quotas) and require less personal interaction, which could influence perceptions of diversity climate and belongingness, or lessen their impact given the lessened personal interaction.

However, a more likely reason for the anomalous findings is the unique sample in which 52% of respondents (1206 total respondents; 27.90% of plants) work at a plant with a non-White majority. This means that categorical race may have been positively related to belongingness because 59.81% of the employees of color in the sample worked in non-White majority plants. Indeed, results of a two sample t-test demonstrated that employees of color working in non-White majority plants had significantly higher average levels of belongingness ($M = 3.78, SD = .80, t(931) = -3, p < .01$) than employees of color working at White majority plants ($M = 3.62, SD = .86$). Although this means that White employees often worked at plants in which they were the minority, their results are nearly opposite to that of employees of color: White employees at non-White majority plants had significantly higher average level of belongingness ($M = 3.70, SD = .84, t(1286) = -2.55, p = .01$) than those at White-majority plants ($M = 3.51, SD = .94$). Taken together, it appears White employees have higher belongingness when they are the minority (high racial dissimilarity) and employees of color have higher belongingness when non-White

employees are the majority (low racial dissimilarity). Given that the interaction between categorical race and racial dissimilarity on belongingness was not significant in the multilevel model, it could be that these effects were mitigated by the controls and other variables entered into the model. On their own, however, they suggest (at least directionally) that dissimilarity does not impact belongingness in the same way for each race.

Although it is intuitive (and supported by the similarity-attraction paradigm; Byrd, 1971) to assume one would feel a heightened sense of belonging when they are among others more similar to them, this was not the case for White employees, and it appears diversity climate may have more of a role than the results of the multilevel models would lead us to believe. Although average plant-level diversity climate was not significantly different between plants with a White ($M = 3.67, SD = .27$) and non-White ($M = 3.70, SD = .23$) majority, average employee-level diversity climate was significantly different ($t(1755) = -5, p < .001$). Average perceived diversity climate for employees working in White-majority plants was 3.54 ($SD = .84$), while average perceived diversity climate for employees working in non-White majority plants was 3.71 ($SD = .75$). This means employees in non-White majority plants perceive more diversity climate than employees in White majority plants, suggesting that belongingness could be higher for employees in non-White majority plants simply because those plants are signaling that all employees are valued, hired, and promoted. This would help to explain the higher belongingness experienced for White employees when racial dissimilarity was high. It also helps to explain the lower belongingness experienced for employees of color with high racial dissimilarity, as the White-majority plants were perceived as having lower diversity climate, and this could signal that these plants value diverse employees less than the plants with a high diversity climate. This provides further support that the anomalous findings could be due to examining variables at an

inappropriate level and points toward the need to examine plant majority race as a Level 2 variable while perhaps examining diversity climate at the individual level.

Limitations and Future Directions

Although actual worker turnover and sentiment were examined using a large sample, the study does have some limitations. Conclusions regarding the relationship between constructs are only as good as the scores derived from measures meant to represent them. In the case of diversity climate, the study was limited by the items on the diversity climate survey simply referring to “diversity,” not “racial diversity.” Although there is evidence to support that people tend to assume racial diversity when hearing the word diversity (Ravishankar, 2021) this is not inherently true, and differences in how respondents interpreted the term could have contributed to measurement error and noise in the model. It should also be noted that while diversity climate is conceptualized in the literature as simply perceiving that the organization signals relevant policies and a commitment to diversity (Avery & McKay, 2006; McCann & Aravamudhan, 2013), this conceptualization does *not* include how well diversity is managed or how successful efforts to diversify are. It could be that organizations with a high diversity climate based on perceived policies actually garner negative sentiment toward poorly executed diversity efforts. This can make it difficult to interpret the results of diversity climate measures, as employees could conflate the existence of efforts with the success of those efforts. Future measures of diversity climate should specify exactly what is meant by the term *diversity* and should clarify if the items are aimed at measuring the existence or success of efforts to aid in clarity and minimize measurement error.

Furthermore, given the findings that racial dissimilarity did have larger direct and indirect effects on turnover than categorical race, future research could validate this finding using a

different methodology: regressing racial dissimilarity on categorical race and using the residuals to assess if there is an impact of racial dissimilarity above and beyond categorical race. Although the current hypotheses explored these variables independently, effects of categorical race differed based on racial dissimilarity, suggesting analyses should be explored that account for their overlap.

Additionally, as aforementioned, racial dissimilarity was conceptualized as one's racial difference compared to others at their plant, but racial dissimilarity may be more relevant compared to one's shift or machine, as hourly manufacturing workers tend to interact most with those on their shift or area, not the entire plant. Future research should examine racial dissimilarity at various levels of analysis, including shift and functional team, or even at various levels of tenure to see if or when the impact of racial dissimilarity lessens. It could be especially meaningful to assess racial dissimilarity between workers and the management team, as leadership tends to be dominated by White males, even when the rest of the staff is not. It could also be relevant to explore differences between White and non-White majority workplaces as a Level 2 variable given that our analyses suggest that racial dissimilarity effects may differ based on both individual-level categorical race and plant-level categorical race.

Moreover, it could be prudent to include other variables at Level 2, such as the racial composition of the community in which the plant location resides. As Pugh et al. (2008) suggest, including a higher-order conceptualization of diversity can help capture an important signaling function that grounds climate perceptions. For organizations embedded in a highly diverse community, the impact of diversity climate could be even more salient as employees weigh how the organization seemingly values the members of the community, and this could be particularly impactful for employees who live and work in the same area, or for who consider themselves to

be those diverse members of the community. The question then becomes how the relation to community diversity is defined: either by categorical race or racial dissimilarity. Therefore, it's not just community diversity that should be examined, but community diversity *with respect to what*. It could be that perceptions of diversity climate differ for employees of varying categorical race when workplaces hire individuals who are highly dissimilar than the surrounding community. Or perhaps plants who hire a workforce that proportionally reflects categorical race in the community fosters a higher sense of belongingness among certain employees. Overall, future research should carefully consider how to define diversity at each level of analysis.

Conclusion

The current study sought to explore the impact of categorical race and racial dissimilarity on diversity climate, belongingness, and turnover in US manufacturing. Findings extend past research in international and White-collar samples to suggest that varying conceptualizations of diversity have differential impacts on belongingness and turnover, and do so in ways contrary to prior literature. Blue-collar employees of color were found to experience higher levels of belongingness than White employees, and belongingness was found to partially mediate the relationship between race and turnover for each racial subgroup examined. Additionally, more racially dissimilar employees experienced higher levels of belongingness than racially similar employees, and belongingness also mediated the relationship between racial dissimilarity and turnover. Although the data did not support diversity climate as a moderator of race on belongingness, the findings did suggest that average perceptions of diversity climate differed based on the racial majority (White or non-White) of the plant. Findings also indicated that feelings of belongingness differed for employees of the same race at varying levels of racial

dissimilarity, suggesting future research should consider expanding diversity operationalizations to include proximal measures that take workplace context into account.

References

- Abbey, E., & Adu-Danso, E. (2022). Gender diversity and productivity in manufacturing firms: Evidence from six Sub-Saharan African (SSA) countries. *Journal of Management & Organization*, 1–22.
- Acquavita, S. P., Pittman, J., Gibbons, M., & Castellanos-Brown, K. (2009). Personal and organizational diversity factors' impact on social workers' job satisfaction: Results from

- a national internet-based survey. *Administration in Social Work*, 33(2), 151–166.
<https://doi.org/10.1080/03643100902768824>
- Ahmed, S., Feeny, S., & Posso, A. (2016). What firm characteristics determine women's employment in manufacturing? Evidence from Bangladesh. *Equality, Diversity and Inclusion: An International Journal*.
- Ali, M., Kulik, C. T., & Metz, I. (2011). The gender diversity–performance relationship in services and manufacturing organizations. *The International Journal of Human Resource Management*, 22(07), 1464–1485.
- Avachat, M. S. (2021). Implications and perceptions of workforce diversity: A comparative study in it and manufacturing firms. *UGC Care Journal*, 44(1), 146–154.
- Avery, D. R., & McKay, P. F. (2006). Target practice: An organizational impression management approach to attracting minority and female job applicants. *Personnel Psychology*, 59(1), 157–187.
- Avery, D. R., McKay, P. F., Wilson, D. C., & Tonidandel, S. (2007). Unequal attendance: The relationships between race, organizational diversity cues, and absenteeism. *Personnel Psychology*, 60(4), 875–902. <https://doi.org/10.1111/j.1744-6570.2007.00094.x>
- Bantel, K. A., & Jackson, S. E. (1989). Top management and innovations in banking: Does the composition of the top team make a difference? *Strategic Management Journal*, 10(S1), 107–124. <https://doi.org/10.1002/smj.4250100709>
- Bergsieker, H. B., Shelton, J. N., & Richeson, J. A. (2010). To be liked versus respected: Divergent goals in interracial interactions. *Journal of Personality and Social Psychology*, 99(2), 248–264. <https://doi.org/10.1037/a0018474>

- Bernerth, J. B., & Aguinis, H. (2016). A critical review and best-practice recommendations for control variable usage. *Personnel Psychology*, *69*(1), 229–283.
<https://doi.org/10.1111/peps.12103>
- Brady, S. T., Cohen, G. L., Jarvis, S. N., & Walton, G. M. (2020). A brief social-belonging intervention in college improves adult outcomes for black Americans. *Science Advances*, *6*(18), eaay3689. <https://doi.org/10.1126/sciadv.aay3689>
- Brewer, M. B. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin*, *17*(5), 475–482.
<https://doi.org/10.1177/0146167291175001>
- Brickson, S. (2000). The impact of identity orientation on individual and organizational outcomes in demographically diverse settings. *The Academy of Management Review*, *25*(1), 82. <https://doi.org/10.2307/259264>
- Burtaverde, V., & Iliescu, D. (2019). Emic vs etic frame of reference personality assessment in the prediction of work-related outcomes. *Career Development International*, *24*(7), 686–701. <https://doi.org/10.1108/CDI-10-2018-0273>
- Byrne, D. (1971). *The Attraction Paradigm*. Academic Press.
- Caughlin, D. E. (2022). *R for HR: An Introduction to Human Resource Analytics Using R*.
- Chan, D. (1998). Functional relations among constructs in the same content domain at different levels of analysis: A typology of composition models. *Journal of Applied Psychology*, *83*(2), 234.
- Choi, J. N., Sung, S. Y., & Zhang, Z. (2017). Workforce diversity in manufacturing companies and organizational performance: The role of status-relatedness and internal processes. *The International Journal of Human Resource Management*, *28*(19), 2738–2761.

- Cletus, H. E., Mahmood, N. A., Umar, A., & Ibrahim, A. D. (2018). Prospects and challenges of workplace diversity in modern day organizations: A critical review. *HOLISTICA—Journal of Business and Public Administration*, 9(2), 35–52.
- Cockshaw, W. D., & Shochet, I. (2010). The link between belongingness and depressive symptoms: An exploration in the workplace interpersonal context. *Australian Psychologist*, 45(4), 283–289. <https://doi.org/10.1080/00050061003752418>
- Cox Jr., T. (1993). *Cultural diversity in organizations: Theory, research, and practice*. Barrett-Kehler.
- Dhuppar, S. (2015). Managing workplace diversity challenges and strategies. *International Journal of Research*, 2(3), 346–351.
- D’Netto, B., Shen, J., Chelliah, J., & Monga, M. (2014). Human resource diversity management practices in the Australian manufacturing sector. *The International Journal of Human Resource Management*, 25(9), 1243–1266.
- Downey, S. N., van der Werff, L., Thomas, K. M., & Plaut, V. C. (2015). The role of diversity practices and inclusion in promoting trust and employee engagement: Diversity practices and engagement. *Journal of Applied Social Psychology*, 45(1), 35–44. <https://doi.org/10.1111/jasp.12273>
- Eibach, R. P., & Keegan, T. (2006). Free at last? Social dominance, loss aversion, and White and Black Americans’ differing assessments of racial progress. *Journal of Personality and Social Psychology*, 90, 453–467.
- Emerson, K. T. U., & Murphy, M. C. (2014). Identity threat at work: How social identity threat and situational cues contribute to racial and ethnic disparities in the workplace. *Cultural*

- Diversity and Ethnic Minority Psychology*, 20(4), 508–520.
<https://doi.org/10.1037/a0035403>
- Enwereuzor, I. K. (2021). Diversity climate and workplace belongingness as organizational facilitators of tacit knowledge sharing. *Journal of Knowledge Management*, 25(9), 2178–2195.
- Faulkner, W. (2011). Gender (in) authenticity, belonging and identity work in engineering. *Brussels Economic Review*, 54(2/3), 277–293.
- Ferdman, B. M. (2013). The practice of inclusion in diverse organizations. In B. M. Ferdman & B. R. Deane (Eds.), *Diversity at Work: The Practice of Inclusion* (1st ed., pp. 3–54). Wiley. <https://doi.org/10.1002/9781118764282.ch1>
- Fernandez, J. P. (1993). *The Diversity Advantage*. Lexington Books.
- Festinger, L. (1954). A theory of social comparison process. *Human Relations*, 1, 117–140.
- Filstad, C., Traavik, L. E. M., & Gorli, M. (2019). Belonging at work: The experiences, representations and meanings of belonging. *Journal of Workplace Learning*, 31(2), 116–142. <https://doi.org/10.1108/JWL-06-2018-0081>
- Fisher, D. M., Cunningham, S., Kerr, A. J., & Allscheid, S. P. (2017). Contextualized personality measures in employee selection: Extending frame-of-reference research with job applicant samples: Fisher et al. *International Journal of Selection and Assessment*, 25(1), 18–35. <https://doi.org/10.1111/ijsa.12156>
- Fleiss, J. (1986). *The Design and Analysis of Clinical Experiments*. Wiley.
- Fritzsche, L., Wegge, J., Schmauder, M., Kliegel, M., & Schmidt, K.-H. (2014). Good ergonomics and team diversity reduce absenteeism and errors in car manufacturing. *Ergonomics*, 57(2), 148–161.

- Garcia, S. M., Avishalom, T., & Schiff, T. M. (2013). The psychology of competition: A social comparison perspective. *Perspectives on Psychological Science*, *634*, 1–17.
- Giffords, E. D. (2009). An examination of organizational commitment and professional commitment and the relationship to work environment, demographic and organizational factors. *Journal of Social Work*, *9*(4), 386–404.
<https://doi.org/10.1177/1468017309346232>
- Gonzalez, J. A., & DeNisi, A. S. (2009). Cross-level effects of demography and diversity climate on organizational attachment and firm effectiveness. *Journal of Organizational Behavior*, *30*(1), 21–40. <https://doi.org/10.1002/job.498>
- Greenberg, J., Ashton-James, C. E., & Ashkanasy, N. M. (2007). Social comparison processes in organizations. *Organizational Behavior and Human Decision Processes*, *102*(1), 22–41.
<https://doi.org/10.1016/j.obhdp.2006.09.006>
- Harrison, D. A., Price, K. H., & Bell, M. P. (1998). Beyond relational demography: Time and the effects of surface- and deep-level diversity on work group cohesion. *Academy of Management Journal*, *41*(1), 96–107. <https://doi.org/10.2307/256901>
- Harrison, D. A., Price, K. H., Gavin, J. H., & Florey, A. T. (2002). Time, teams, and task performance: Changing effects of surface-and deep-level diversity on group functioning. *Academy of Management Journal*, *45*(5), 1029–1045.
- Hayles, R. V., & Russell, A. M. (1997). *The Diversity Directive: Why Some Initiatives Fail and What to Do About It*. Irwin.
- Healy, M. C., Lehman, M., & Mcdaniel, M. A. (1995). Age and voluntary turnover: A quantitative review. *Personnel Psychology*, *48*(2), 335–345.
<https://doi.org/10.1111/j.1744-6570.1995.tb01760.x>

- Hospers, G. (2003). Creative cities: Breeding places in the knowledge economy. *Knowledge, Technology & Policy*, 16, 143–162.
- Inglehart, R. (1990). *Culture Shift in Advanced Industrial Society*. Princeton University Press.
- Jeswani, S., Dave, D., & Shankaracharya, S. (2012). A study on the impact of predictors of psychological ownership on turnover intention among faculty members. *IJEMR*, 2(2), 1–22.
- Joshi, A., & Roh, H. (2009). The role of context in work team diversity research: A meta-analytic review. *Academy of Management Journal*, 52(3), 599–627.
- Kanter, R. M. (1977). *Men and Women of the Corporation*. Basic Books.
- Karakhan, A. A., Gambatese, J. A., Simmons, D. R., & Al-Bayati, A. J. (2021). Identifying pertinent indicators for assessing and fostering diversity, equity, and inclusion of the construction workforce. *Journal of Management in Engineering*, 37(2), 04020114.
- Kmec, J. A. (2007). Ties that bind? Race and networks in job turnover. *Social Problems*, 54(4), 483–503. <https://doi.org/10.1525/sp.2007.54.4.483>
- Kochan, T., Bezrukova, K., Ely, R., Jackson, S., Joshi, A., Jehn, K., Leonard, J., Levine, D., & Thomas, D. (2003). The effects of diversity on business performance: Report of the diversity research network. *Human Resource Management*, 42(1), 3–21. <https://doi.org/10.1002/hrm.10061>
- Koopman, J., Hower, M., Hollenbeck, J. R., & Hock-Peng, S. (2015). Small sample mediation testing: Misplaced confidence in bootstrapped confidence intervals. *Journal of Applied Psychology*, 100(1), 194–202.
- Kossek, E. E., & Zonia, S. C. (1993). Assessing diversity climate: A field study of reactions to employer efforts to promote diversity. *Journal of Organizational Behavior*, 14, 61–81.

- Kunze, F., Boehm, S. A., & Bruch, H. (2021). It matters how old we feel in organizations: Testing a multilevel model of organizational subjective-age diversity on employee outcomes. *Journal of Organizational Behavior*, *42*(4), 448–463.
- Latha, K. L. (2013). A study on employee attrition and retention in manufacturing industries. *BVIMSR Journal of Management Research*, *5*(1), 1–23.
- LeBreton, J. M., & Senter, J. L. (2008). Answers to 20 questions about interrater reliability and interrater agreement. *Organizational Research Methods*, *11*(4), 815–852.
<https://doi.org/10.1177/1094428106296642>
- Mamman, A., Kamoche, K., & Bakuwa, R. (2012). Diversity, organizational commitment and organizational citizenship behavior: An organizing framework. *Human Resource Management Review*, *22*(4), 285–302.
- Mannix, E., & Neale, M. A. (2005). What differences make a difference?: The promise and reality of diverse teams in organizations. *Psychological Science in the Public Interest*, *6*(2), 31–55. <https://doi.org/10.1111/j.1529-1006.2005.00022.x>
- Maynard, D. C., & Ferdman, B. M. (2009). The marginalized workforce: How I-O psychology can make a difference. *The Industrial-Organizational Psychologist*, *46*(4), 25–29.
- McCann, J., & Aravamudhan, S. (2013). Employee perceptions of workplace diversity in the manufacturing industry. *International Journal of Human Resources Development and Management*, *13*(2/3), 224–239.
- McPherson, M., Smith-Lovin, L., & Cook, J. M. (2001). Birds of a feather: Homophily in social networks. *Annual Review of Sociology*, *27*(1), 415–444.
<https://doi.org/10.1146/annurev.soc.27.1.415>

- Milliken, F. J., & Martins, L. L. (1996). Searching for common threads: Understanding the multiple effects of diversity in organizational groups. *The Academy of Management Review*, *21*(2), 402. <https://doi.org/10.2307/258667>
- Mor Barak, M. E. (2015). Inclusion is the key to diversity management, but what is inclusion? *Human Service Organizations Management, Leadership & Governance*, *39*(2), 83–88. <https://doi.org/10.1080/23303131.2015.1035599>
- Mor Barak, M. E., Cherin, D. A., & Berkman, S. (1998). Organizational and personal dimensions in diversity climate, ethnic and gender differences in employee perceptions. *Journal of Applied Behavioral Science*, *34*(1), 82–104.
- Mor Barak, M. E., Lizano, E. L., Kim, A., Duan, L., Rhee, M.-K., Hsiao, H.-Y., & Brimhall, K. C. (2016). The promise of diversity management for climate of inclusion: A state-of-the-art review and meta-analysis. *Human Service Organizations: Management, Leadership & Governance*, *40*(4), 305–333.
- Muthén, L. K., & Muthén, B. O. (2007). *Mplus User's Guide (Sixth Edition)*. Muthén & Muthén.
- Newman, A., Ucbasaran, D., Zhu, F., & Hirst, G. (2014). Psychological capital: A review and synthesis. *Journal of Organizational Behavior*, *35*(S1), S120–S138. <https://doi.org/10.1002/job.1916>
- Ng, E. S., & Sears, G. J. (2012). Ceo leadership styles and the implementation of organizational diversity practices: Moderating effects of social values and age. *Journal of Business Ethics*, *105*, 41–52.
- Ng, T. W. H., & Feldman, D. C. (2009). Re-examining the relationship between age and voluntary turnover. *Journal of Vocational Behavior*, *74*(3), 283–294. <https://doi.org/10.1016/j.jvb.2009.01.004>

- O'Reilly, C. A., Caldwell, D. F., & Barnett, W. P. (1989). Work group demography, social integration, and turnover. *Administrative Science Quarterly*, *34*, 21–37.
- Pfeffer, J. (1983). Organizational demography. *Research in Organizational Behavior*, *5*, 299–357.
- Pickett, C. L., Gardner, W. L., & Knowles, M. (2004). Getting a cue: The need to belong and enhanced sensitivity to social cues. *Personality and Social Psychology Bulletin*, *30*(9), 1095–1107. <https://doi.org/10.1177/0146167203262085>
- Plaut, V. C., Garnett, F. G., Buffardi, L. E., & Sanchez-Burks, J. (2011). “What about me?” Perceptions of exclusion and Whites’ reactions to multiculturalism. *Journal of Personality and Social Psychology*, *101*(2), 337–353. <https://doi.org/10.1037/a0022832>
- Poortvliet, P. M., Janssen, O., Van Yperen, N. W., & Van de Vliert, E. (2009). Low ranks make the difference: How achievement goals and ranking information affect cooperation intentions. *Journal of Experimental Social Psychology*, *45*(5), 1144–1147. <https://doi.org/10.1016/j.jesp.2009.06.013>
- Rahn, G., Martiny, S. E., & Nikitin, J. (2021). Feeling out of place: Internalized age stereotypes are associated with older employees’ sense of belonging and social motivation. *Work, Aging and Retirement*, *7*(1), 61–77. <https://doi.org/10.1093/workar/waaa005>
- Rainey, K., Dancy, M., Mickelson, R., Stearns, E., & Moller, S. (2018). Race and gender differences in how sense of belonging influences decisions to major in STEM. *International Journal of STEM Education*, *5*(1), 10. <https://doi.org/10.1186/s40594-018-0115-6>
- Randel, A. E., Galvin, B. M., Shore, L. M., Ehrhart, K. H., Chung, B. G., Dean, M. A., & Kedharnath, U. (2018). Inclusive leadership: Realizing positive outcomes through

- belongingness and being valued for uniqueness. *Human Resource Management Review*, 28(2), 190–203. <https://doi.org/10.1016/j.hrmr.2017.07.002>
- Ravishankar, R. A. (2021, June 21). *Stop saying “diverse” when you mean something else*. Harvard Business Review. <https://hbr.org/2021/06/stop-saying-diverse-when-you-mean-something-else>
- Resnick, S., & Fuller, J. C. (2021). Diversity, equity, and inclusion: Meeting new demands and requirements for accountability. *Board Leadership*, 2021(174), 4–8.
- Richard, O. C. (2000). Racial diversity, business strategy, and firm performance: A resource-based view. *Academy of Management Journal*, 43(2), 164–177. <https://doi.org/10.2307/1556374>
- Richard, O. C., Kirby, S. L., & Chadwick, K. (2013). The impact of racial and gender diversity in management on financial performance: How participative strategy making features can unleash a diversity advantage. *The International Journal of Human Resource Management*, 24(13), 2571–2582. <https://doi.org/10.1080/09585192.2012.744335>
- Riordan, C. M., & Shore, L. M. (1997). Demographic diversity and employee attitudes: An empirical examination of relational demography within work units. *Journal of Applied Psychology*, 82(3), 342–358.
- Roberson, Q. M. (2006). Disentangling the meanings of diversity and inclusion in organizations. *Group & Organization Management*, 31(2), 212–236.
- Roberson, Q. M. (2019). Diversity in the workplace: A review, synthesis, and future research agenda. *Annual Review of Organizational Psychology and Organizational Behavior*, 6, 69–88.

- Roberson, Q. M., Ryan, A. M., & Ragins, B. R. (2017). The evolution and future of diversity at work. *Journal of Applied Psychology, 102*(3), 483.
- Robinson, G., & Dechant, K. (1997). Building a business case for diversity. *The Academy of Management Executive, 11*(3), 21–31.
- Ross, D. (2019). Empiricism, sciences, and engineering: Cognitive science as a zone of integration. *Cognitive Processing, 20*(2), 261–267. <https://doi.org/10.1007/s10339-019-00916-z>
- Sacco, J. M., & Schmitt, N. (2005). A dynamic multilevel model of demographic diversity and misfit effects. *Journal of Applied Psychology, 90*(2), 203.
- Schneider, B., & Reichers, A. E. (1983). On the etiology of climates. *Personnel Psychology, 36*, 19–39.
- Schulte, M., Ostroff, C., & Kinicki, A. J. (2006). Organizational climate systems and psychological climate perceptions: A cross-level study of climate-satisfaction relationships. *Journal of Occupational and Organizational Psychology, 79*(4), 645–671. <https://doi.org/10.1348/096317905X72119>
- Seiler, S. N. (2011). *The impact of item characteristics on contextualized personality assessment* [Dissertation]. University of Illinois at Urbana-Champaign.
- Shaffer, J. A., & Postlethwaite, B. E. (2012). A matter of context: A meta-analytic investigation of the relative validity of contextualized and noncontextualized personality measures. *Personnel Psychology, 65*(3), 445–494. <https://doi.org/10.1111/j.1744-6570.2012.01250.x>
- Shieh, G. (2016). Choosing the best index for the average score intraclass correlation coefficient. *Behavior Research Methods, 48*, 994–1003.

- Sockin, J. (2021). *Show me the amenity: Are higher-paying firms better all around?* [CESifo Working Paper]. <https://ssrn.com/abstract=3957002>
- Spence, M. (1973). Job market signaling. *Quarterly Journal of Economics*, 87(3), 355–374.
- Steele, C. M., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology*, 69, 797–811.
- Sull, D., Sull, C., & Zweig, B. (2022). Toxic culture is driving the great resignation. *MIT Sloan Management Review*, 63(2), 1–9.
- Taylor, M. S., Audia, G., & Gupta, A. K. (1996). The effect of lengthening job tenure on managers' organizational commitment and turnover. *Organization Science*, 7(6), 632–648. <https://doi.org/10.1287/orsc.7.6.632>
- Teruel, M., Parra, M. D., & Segarra Blasco, A. (2015). *Gender diversity and innovation in manufacturing and service firms*.
- Thomas, K. M., & Clark, C. C. (2003). Barriers and bridges to inclusion: The graduate student perspective. *The Industrial-Organizational Psychologist*, 41, 155–159.
- Tsui, A. S., Egan, T. D., & Iii, C. A. O. (1992). Being different: Relational demography and organizational attachment. *Administrative Science Quarterly*, 37(4), 549. <https://doi.org/10.2307/2393472>
- Tsui, A. S., & O'Reilly, C. A. (1989). Beyond simple demographic effects: The importance of relational demography in superior-subordinate dyads. *Academy of Management Journal*, 32(2), 402–423. <https://doi.org/10.2307/256368>
- Turner, J. C., & Tajfel, H. (1982). Towards a cognitive redefinition of the social group. In *Social identity and intergroup relations* (pp. 15–40). Cambridge University Press.

- Tyler, T. R. (1989). The psychology of procedural justice: A test of the group-value model. *Journal of Personality and Social Psychology*, *57*(5), 830–838.
<https://doi.org/10.1037/0022-3514.57.5.830>
- van Knippenberg, D., De Dreu, C. K. W., & Homan, A. C. (2004). Work group diversity and group performance: An integrative model and research agenda. *Journal of Applied Psychology*, *89*, 1008–1022.
- Veldman, J., Meeussen, L., Van Laar, C., & Phaet, K. (2017). Women (Do Not) Belong Here: Gender-Work Identity Conflict among Female Police Officers. *Frontiers in Psychology*, *8*, 130. <https://doi.org/10.3389/fpsyg.2017.00130>
- Waardenburg, L. (2016). The influence of commitment on employees' sense of belongingness and the consequences on employees' turnover intentions in high-commitment organizations: A study at the Royal Netherlands Navy. *SRC*, 1–4.
- Walia, S., & Malik, R. (2015). Workforce diversity management: Essence of modern organisations. *CPJ Global Review*, *7*(1).
- Walker, H. J., Feild, H. S., Bernerth, J. B., & Becton, J. B. (2012). Diversity cues on recruitment websites: Investigating the effects on job seekers' information processing. *Journal of Applied Psychology*, *97*(1), 214–224. <https://doi.org/10.1037/a0025847>
- Walton, G. M., & Cohen, G. L. (2007). A question of belonging: Race, social fit, and achievement. *Journal of Personality and Social Psychology*, *92*(1), 82–96.
<https://doi.org/10.1037/0022-3514.92.1.82>
- Wickramasinghe, G. L. D. (2016). Effects of gender on work-related attitudes: Study of lean implemented textile and apparel manufacturing firms. *The Journal of The Textile Institute*, *107*(7), 854–863. <https://doi.org/10.1080/00405000.2015.1061795>

- Williams, K. Y., & O'Reilly, C. A. (1998). Demography and diversity in organizations: A review of 40 years of research. *Research in Organizational Behavior*, *20*, 77–140.
- Zenger, T. R., & Lawrence, B. S. (1989). Organizational demography: The differential effects of age and tenure distributions on technical communication. *Academy of Management Journal*, *32*(2), 353–376. <https://doi.org/10.2307/256366>
- Zhao, X., Lynch, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research*, *37*(2), 197–206. <https://doi.org/10.1086/651257>
- Zink, C. F., Tong, Y., Chen, Q., Bassett, D. S., Stein, J. L., & Meyer-Lindenberg, A. (2008). Know your place: Neural processing of social hierarchy in humans. *Neuron*, *58*(2), 273–283. <https://doi.org/10.1016/j.neuron.2008.01.025>

Table 1

Means, Standard Deviations, and Intercorrelations

Variables	N	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. Categorical Race	1386 White 933 EOC			-									
2. Black Race	483			.63***	-								
3. Hispanic Race	401			.56***	-	-							
4. Other Race	49			.18***	-	-	-						
5. Racial Dissimilarity		.58	.25	.60***	.37***	.30***	.23***	-					
6. Belongingness		3.61	.90	.09***	.01	.08***	.08***	.14***	-				
7. Diversity Climate		3.59	.34	.20***	.05*	.19***	.05**	.27***	.38***	-			
8. Turnover				-.03	-.02	-.02	-.02	.02	-.06**	-.00	-		
9. Age		44.10	12.40	-.06**	.02	-.10***	-.01	-.02	-.01	-.00	-.18***	-	
10. Tenure		10.90	11.40	-.04	-.03	-.01	-.02	-.03	-.06	-.00	-.17***	.62***	-
11. Gender	2026 male 293 female			-.01	-.09***	.07***	.02	.01	.03	.03	-.03	-.04	-.01

Note. * $p < .05$, ** $p < .01$, *** $p < .001$; *M* = Mean; *SD* = Standard Deviation; EOC = employees of color; 1.) Coded as 0 = White, 1 = employee of color; 2.) Coded as 0 = White, 1 = Black; 3.) Coded as 0 = White, 1 = Hispanic; 4.) Coded as 0 = White, 1 = Other

Table 2

Belongingness and Turnover by Racial Subgroup

	Belongingness		Turnover
	<i>M</i>	<i>SD</i>	N
Overall	3.61	.90	212
White	3.55	.93	138
Non-White	3.71	.83	74
Black	3.64	.85	39
Hispanic	3.77	.81	32
Other	4.08	.72	3

Note: *M* = Mean; *SD* = Standard Deviation

Table 3

Mediation Analysis with Categorical Race

Type	Effect	Unstandardized Estimates		Standardized Estimates	Critical ratio	<i>p</i>	95% CI	
		Estimate	<i>SE</i>	Beta			Lower Bound	Upper Bound
Direct	Belongingness ⇒ turnover	-.39	.08	-.15	-4.78	.00	-.54	-.23
	Categorical race ⇒ turnover	-.25	.16	-.12	-1.55	.12	-.59	.06
	Age ⇒ turnover	-.02	.01	-.11	-2.69	.01	-.04	-.01
	Gender ⇒ turnover	-.31	.22	-.05	-1.39	.16	-.71	.16
	Tenure ⇒ turnover	-.11	.02	-.54	-5.86	.00	-.15	-.08
Component	Categorical race ⇒ belongingness	.17	.04	.09	4.56	.00	.10	.24
	Age ⇒ belongingness	.00	.00	.05	1.59	.11	.00	.01
	Gender ⇒ belongingness	.08	.06	.03	1.15	.25	-.04	.19
	Tenure ⇒ belongingness	-.01	.00	-.14	-5.33	.00	-.02	-.01
Indirect	Categorical race ⇒ belongingness ⇒ turnover	-.07	.02	-.03	-3.30	.00	-.11	-.03

Note. *SE* = Standard Error; *CI* = Confidence Interval. Confidence intervals are 95% bias-corrected confidence intervals based on 5,000 samples.

Table 4

Exploratory: Mediation Analysis with Black Race

Type	Effect	Unstandardized Estimates		Standardized Estimate	Critical ratio	<i>p</i>	95% CI	
		Estimate	<i>SE</i>	Beta			Lower Bound	Upper Bound
Direct	Belongingness ⇒ turnover	-.40	.08	-.16	-4.95	.00	-.55	-.24
	Black race ⇒ turnover	-.24	.21	-.10	-1.17	.24	-.65	.15
	Age ⇒ turnover	-.02	.01	-.10	-2.64	.01	-.03	-.00
	Gender ⇒ turnover	-.33	.23	-.05	-1.44	.15	-.73	.15
	Tenure ⇒ turnover	-.11	.02	-.55	-5.92	.00	-.15	-.08
Component	Black race ⇒ belongingness	.03	.04	.01	.64	.52	-.06	.12
	Age ⇒ belongingness	.00	.00	.04	1.59	.11	.00	.01
	Gender ⇒ belongingness	.08	.06	.03	1.32	.19	-.04	.19
	Tenure ⇒ belongingness	-.01	.00	-.14	-5.29	.00	-.02	-.01
Indirect	Black race ⇒ belongingness ⇒ turnover	-.01	.02	-.01	-.62	.54	-.05	.02

Note. *SE* = Standard Error; CI = Confidence Interval. Confidence intervals are 95% bias-corrected confidence intervals based on 5,000 samples.

Table 5

Exploratory: Mediation Analysis with Hispanic Race

Type	Effect	Unstandardized Estimates		Standardized Estimates	Critical ratio	<i>p</i>	95% CI	
		Estimate	<i>SE</i>	Beta			Lower Bound	Upper Bound
Direct	Belongingness ⇒ turnover	-.40	.08	-.15	-4.92	.00	-.54	-.24
	Hispanic race ⇒ turnover	-.10	.22	-.04	-.46	.65	-.54	.31
	Age ⇒ turnover	-.02	.01	-.11	-2.64	.01	-.04	-.01
	Gender ⇒ turnover	-.30	.22	-.04	-1.33	.19	-.70	.18
	Tenure ⇒ turnover	-.11	.02	-.54	-5.84	.00	-.15	.08
Component	Hispanic race ⇒ belongingness	.20	.05	.08	4.21	.00	.10	.29
	Age ⇒ belongingness	.00	.00	.06	2.44	.07	.00	.01
	Gender ⇒ belongingness	.06	.06	.02	1.03	.30	-.05	.18
	Tenure ⇒ belongingness	-.01	.00	-.16	-5.65	.00	-.02	-.01
Indirect	Hispanic race ⇒ belongingness ⇒ turnover	-.08	.03	-.03	-3.16	.00	-.14	-.04

Note. *SE* = Standard Error; *CI* = Confidence Interval. Confidence intervals are 95% bias-corrected confidence intervals based on 5,000 samples.

Table 6

Exploratory: Mediation Analysis with Other Race

Type	Effect	Unstandardized Estimates		Standardized Estimate	Critical ratio	<i>p</i>	95% CI	
		Estimate	<i>SE</i>	Beta			Lower Bound	Upper Bound
Direct	Belongingness ⇒ turnover	-.39	.08	-.16	-4.88	.00	-.55	-.23
	Other race ⇒ turnover	-.48	2.09	-.07	-.23	.82	-9.57	.57
	Age ⇒ turnover	-.02	.01	-.11	-2.62	.01	-.04	-.01
	Gender ⇒ turnover	-.30	.22	-.04	-1.34	.18	-.71	.17
	Tenure ⇒ turnover	-.11	.02	-.54	5.89	.00	-.15	-.08
Component	Other race ⇒ belongingness	.43	.10	.07	4.12	.00	.22	.63
	Age ⇒ belongingness	.00	.00	.04	1.79	.07	.00	.01
	Gender ⇒ belongingness	.07	.06	.03	1.21	.23	-.05	.18
	Tenure ⇒ belongingness	-.01	.00	-.14	-5.21	.00	-.02	-.01
Indirect	Other race ⇒ belongingness ⇒ turnover	-.17	.06	-.02	-3.09	.00	-.30	-.08

Note. *SE* = Standard Error; *CI* = Confidence Interval. Confidence intervals are 95% bias-corrected confidence intervals based on 5,000 samples.

Table 7

Mediation Analysis with Racial Dissimilarity

Type	Effect	Unstandardized Estimates		Standardized Estimates	Critical ratio	p	95% CI	
		Estimate	SE	Beta			Lower Bound	Upper Bound
Direct	Belongingness \Rightarrow turnover	-.42	.08	-.16	-5.01	.00	-.58	-.25
	Racial dissimilarity \Rightarrow turnover	.42	.32	.13	1.31	.19	-.20	1.07
	Age \Rightarrow turnover	-.02	.01	-.11	-2.64	.01	-.04	-.01
	Gender \Rightarrow turnover	-.31	.22	-.04	-1.36	.17	-.71	.16
	Tenure \Rightarrow turnover	-.11	.02	-.54	-5.87	.00	-.15	-.08
Component	Racial dissimilarity \Rightarrow belongingness	.51	.08	.15	6.73	.00	.37	.67
	Age \Rightarrow belongingness	.00	.00	.04	1.59	.11	.00	.01
	Gender \Rightarrow belongingness	.07	.06	.03	1.15	.25	-.04	.19
	Tenure \Rightarrow belongingness	-.01	.00	-.13	-4.99	.00	-.02	-.01
Indirect	Racial dissimilarity \Rightarrow belongingness \Rightarrow turnover	-.22	.05	-.06	-3.96	.00	-.34	-.12

Note. SE = Standard Error; CI = Confidence Interval. Confidence intervals are 95% bias-corrected confidence intervals based on 5,000 samples.

Table 8

Differences in Direct and Indirect Effects

Type	Effect	Standardized Estimates		Critical ratio	p	95% CI	
		Beta	SE			Lower Bound	Upper Bound
Difference in Direct Effects	Categorical Race – Racial Dissimilarity	-.25	.07	-3.20	.00	-.38	-.10
	Black Race – Racial Dissimilarity	-.20	.10	-2.11	.04	-.40	-.02
	Hispanic Race – Racial Dissimilarity	-.14	.09	-1.6	.11	-.32	.03
	Other Race – Racial Dissimilarity	-.18	.31	-.58	.56	-1.37	.03
Difference in Indirect Effects	Categorical Race – Racial Dissimilarity	.02	.01	2.71	.01	.01	.04
	Black Race – Racial Dissimilarity	.05	.01	3.76	.00	.03	.08
	Hispanic Race – Racial Dissimilarity	.03	.01	2.42	.02	.01	.05
	Other Race – Racial Dissimilarity	.03	.01	2.71	.01	.01	.06

Note. *SE* = Standard Error; *CI* = Confidence Interval. Confidence intervals are 95% bias-corrected confidence intervals based on 5,000 samples.

Table 9

Multilevel Model Results for Hypothesis 5

Type	Predictor	Unstandardized Estimates		Standardized Estimates			95% CI	
		Estimate	<i>SE</i>	Beta	<i>t</i>	<i>p</i>	Lower Bound	Upper Bound
Level 1	Categorical Race	.03	.04	.02	.80	.43	-.04	.11
	Age	.00	.00	.04	1.40	.16	-.00	.01
	Tenure	-.01	.00	-.09	-3.26	.00	-.01	-.00
	Gender	.04	.07	.02	.64	.52	-.09	.17
Level 2	Diversity Climate	1.02	.10	.38	10.09	.00	.82	1.27
Cross-Level Interactions	Categorical Race x Diversity Climate	-.01	.15	-.00	-.05	.96	-.47	.20

Note. Outcome is belongingness; *SE* = Standard Error; CI = Confidence Interval. Confidence intervals are 95% bias-corrected confidence intervals based on 5,000 samples.

Table 10

Multilevel Model Results for Hypothesis 6

Type	Predictor	Unstandardized Estimates		Standardized Estimates			95% CI	
		Estimate	<i>SE</i>	Beta	<i>t</i>	<i>p</i>	Lower Bound	Upper Bound
Level 1	Racial Dissimilarity	.22	.15	.03	1.41	.16	-.05	.55
	Age	.00	.00	.04	1.32	.19	-.00	.01
	Tenure	-.01	.00	-.08	-3.15	.00	-.01	-.00
	Gender	.04	.07	.01	.53	.60	-.10	.17
Level 2	Diversity Climate	1.03	.06	.38	16.36	.00	.90	1.16
Cross-Level Interactions	Racial Dissimilarity x Diversity Climate	.80	.42	.04	1.88	.06	-.19	1.70

Note. Outcome is belongingness; *SE* = Standard Error; CI = Confidence Interval. Confidence intervals are 95% bias-corrected confidence intervals based on 5,000 samples.

Table 11

Multilevel Model Results for Hypothesis 7

Type	Predictor	Unstandardized		Standardized		95% CI		
		Estimates		Estimates		Lower Bound	Upper Bound	
		Estimate	<i>SE</i>	Beta	<i>t</i>	<i>p</i>		
Level 1	Categorical Race	.02	.04	.01	.46	.65	-.06	.10
	Racial Dissimilarity	-.10	.60	-.02	-.17	.87	-1.50	.71
	Racial Dissimilarity x Categorical Race	.34	.66	.04	.51	.61	-.60	1.79
	Age	.00	.00	.04	1.28	.20	-.00	.01
	Tenure	-.01	.00	-.08	-3.08	.00	-.01	-.00
	Gender	-.04	.07	.01	.58	.57	-.10	.17
Level 2	Diversity Climate	1.09	.15	.41	7.47	.00	.89	1.39
Cross-Level Interactions	Categorical Race x Diversity Climate	-.13	.16	-.02	-.83	.41	-.46	.11
	Racial Dissimilarity x Diversity Climate	2.38	2.28	.11	1.04	.30	-.61	7.53
	Racial Dissimilarity x Categorical Race x Diversity Climate	-1.56	2.43	-.07	-.64	.52	-6.59	1.67

Note. Outcome is belongingness; *SE* = Standard Error; CI = Confidence Interval. Confidence intervals are 95% bias-corrected confidence intervals based on 5,000 samples.

Table 12

Exploratory: Multilevel Model Results for Hypotheses 5 and 7 with Black Race

Type	Predictor	Hypothesis 5						Hypothesis 7					
		Unstandardized Estimates		Standardized Estimates		95% CI		Unstandardized Estimates		Standardized Estimates		95% CI	
		Estimate	SE	Beta	<i>t</i>	Lower Bound	Upper bound	Estimate	SE	Beta	<i>t</i>	Lower Bound	Upper Bound
Level 1	Black Race	-.02***	.04	-.01	-.54	-.10	.06	-.04	.05	-.02	-.77	-.14	.05
	Racial Dissimilarity	-	-	-	-	-	-	.33	.20	.05	1.64	-.05	.76
	Black Race x Racial Dissimilarity							-.30	.30	-.03	-1.02	-.99	.22
	Age	.00	.00	.04	1.39	-.00	.01	.00	.00	.04	1.38	-.00	.01
	Tenure	-.01**	.00	-.09	-3.30	-.01	-.00	-.01**	.00	-.09	-3.15	-.01	-.00
	Gender	.04	.07	.01	.58	-.09	.17	.03	.07	.01	.47	-.10	.16
Level 2	Diversity Climate	1.02	.08	.38	13.61	.85	1.17	1.04***	.08	.39	13.66	.89	1.22
Cross-Level Interactions	Black Race x Diversity Climate	.09	.14	.01	.60	-.32	.33	-.03	.22	-.00	-.13	-.60	.34
	Racial Dissimilarity x Diversity Climate	-	-	-	-	-	-	1.02	.56	.05	1.83	-.10	2.34
	Black Race x Racial Dissimilarity x Diversity Climate	-	-	-	-	-	-	-.36	1.06	-.01	-.34	-2.73	1.53

Note: * $p < .05$, ** $p < .01$, *** $p < .001$; Outcome is belongingness; SE = Standard Error; CI = Confidence Interval. Confidence intervals are 95% bias-corrected confidence intervals based on 5,000 samples.

Table 13

Exploratory: Multilevel Model Results for Hypotheses 5 and 7 with Hispanic Race

		Hypothesis 5						Hypothesis 7					
		Unstandardized Estimates		Standardized Estimates		95% CI		Unstandardized Estimates		Standardized Estimates		95% CI	
Type	Predictor	Estimate	SE	Beta	<i>t</i>	Lower Bound	Upper bound	Estimate	SE	Beta	<i>t</i>	Lower Bound	Upper Bound
Level 1	Hispanic Race	.04	.05	.02	.74	-.05	.14	.06	.05	.03	1.14	-.02	.15
	Racial Dissimilarity	-	-	-	-	-	-	.23	.19	.03	1.19	-.15	.59
	Hispanic Race x Racial Dissimilarity							-.11	.27	-.01	-.40	-.54	.52
	Age	.00	.00	.04	1.42	-.00	.01	.00	.00	.04	1.39	-.02	.09
	Tenure	-.01	.00	-.09	-3.33	-.01	-.00	-.01**	.00	-.09	-3.16	-.13	-.03
	Gender	.04	.07	.02	.62	-.09	.17	.04	.07	.02	.62	-.03	.07
Level 2	Diversity Climate	1.04	.08	.40	5.52	.92	1.26	1.01***	.07	.38	15.47	.24	.48
Cross-Level Interactions	Hispanic Race x Diversity Climate	-.14	.22	-.02	.74	-.74	.21	-.16	.18	-.02	-.89	-.61	.07
	Racial Dissimilarity x Diversity Climate	-	-	-	-	-	-	.49	.60	.02	.81	-.42	1.99
	Hispanic Race x Racial Dissimilarity x Diversity Climate	-	-	-	-	-	-	1.08	1.08	.03	.99	-1.58	2.55

Note: * $p < .05$, ** $p < .01$, *** $p < .001$; Outcome is belongingness; SE = Standard Error; CI = Confidence Interval. Confidence intervals are 95% bias-corrected confidence intervals based on 5,000 samples.

Table 14

Exploratory: Multilevel Model Results for Hypotheses 5 and 7 with Other Race

		Hypothesis 5						Hypothesis 7					
		Unstandardized Estimates		Standardized Estimates	95% CI			Unstandardized Estimates		Standardized Estimates	95% CI		
Type	Predictor	Estimate	SE	Beta	<i>t</i>	Lower Bound	Upper bound	Estimate	SE	Beta	<i>t</i>	Lower Bound	Upper Bound
Level 1	Other Race	.33	.06	.05	2.09	-.00	.58	.11	.45	.02	.24	-.87	.99
	Racial Dissimilarity	-	-	-	-	-	-	.10	.13	.01	.75	-.15	.35
	Other Race x Racial Dissimilarity	-	-	-	-	-	-	.45	1.44	.02	.31	-3.57	2.35
	Age	.00	.00	.04	1.33	-.00	.01	.00	.00	.04	1.32	-.00	.01
	Tenure	-.01**	.00	-.09	-3.23	-.01	-.00	-.01**	.00	-.08	-3.12	-.01	-.00
	Gender	.04	.07	.02	.60	-.09	.17	.04	.07	.02	.60	-.09	.17
Level 2	Diversity Climate	1.02***	.06	.38	16.21	.89	1.15	1.02***	.06	.38	16.29	.89	1.16
Cross-Level Interactions	Other Race x Diversity Climate	-.03	.49	-.00	-.07	-.72	1.24	.63	1.75	.03	.36	-3.59	3.81
	Racial Dissimilarity x Diversity Climate	-	-	-	-	-	-	.99	.39	.05	2.54	-.02	1.61
	Other Race x Racial Dissimilarity x Diversity Climate	-	-	-	-	-	-	-.16	5.43	-.04	-.38	-10.65	14.36

Note: * $p < .05$, ** $p < .01$, *** $p < .001$; Outcome is belongingness; *SE* = Standard Error; *CI* = Confidence Interval. Confidence intervals are 95% bias-corrected confidence intervals based on 5,000 samples.

Table 15

Exploratory: Multilevel Model Results for Hypothesis 5 with Turnover

Type	Predictor	Unstandardized Estimates		Standardized Estimates	Critical ratio	<i>p</i>	95% CI	
		Estimate	<i>SE</i>	Beta			Lower Bound	Upper Bound
Belongingness on Level 1	Categorical Race	.03	.04	.02	.80	.43	-.04	.11
	Age	.00	.00	.04	1.40	.16	-.00	.01
	Tenure	-.01	.00	-.09	-3.26	.00	-.01	-.00
	Gender	.04	.07	.02	.64	.52	-.09	.17
Turnover on Level 1	Belongingness	-.19	.03	-.15	-5.99	.00	-.25	-.12
	Age	-.02	.00	-.16	-3.61	.00	-.02	-.01
	Tenure	-.03	.01	-.32	-5.32	.00	-.05	-.02
	Gender	-.15	.11	-.05	-1.41	.16	-.37	.05
Level 2	Belongingness on Diversity Climate	1.02	.10	.38	10.08	.00	.82	1.27
	Turnover on Diversity Climate	.45	.29	.14	1.54	.12	-.37	.82
Cross-Level Interactions	Belongingness on Categorical Race x Diversity Climate	-.71	.48	-.00	-.05	.96	-.47	.20

Note: *SE* = Standard Error; *CI* = Confidence Interval. Confidence intervals are 95% bias-corrected confidence intervals based on 5,000 samples.

Table 16

Exploratory: Multilevel Model Results for Hypothesis 6 with Turnover

Type	Predictor	Unstandardized Estimates		Standardized Estimates	Critical ratio	<i>p</i>	95% CI	
		Estimate	<i>SE</i>	Beta			Lower Bound	Upper Bound
Belongingness on Level 1	Racial Dissimilarity	.22	.15	.03	1.41	.16	-.05	.55
	Age	.00	.00	.04	1.32	.19	-.00	.01
	Tenure	-.01	.00	-.09	-3.15	.00	-.01	-.00
	Gender	.04	.07	.01	.53	.60	-.10	.17
Turnover on Level 1	Belongingness	-.19	.03	-.16	-6.10	.00	-.25	-.13
	Age	-.01	.00	-.15	-3.52	.00	-.02	-.01
	Tenure	-.03	.01	-.32	-5.25	.00	-.05	-.02
	Gender	-.16	.11	-.05	-1.45	.15	-.38	.05
Level 2	Belongingness on Diversity Climate	1.03	.06	.38	16.36	.00	.90	1.16
	Turnover on Diversity Climate	.24	.30	.07	.81	.42	-.52	.65
Cross-Level Interactions	Belongingness on Racial Dissimilarity x Diversity Climate	.80	.42	.04	1.89	.06	-.19	.01

Note: *SE* = Standard Error; CI = Confidence Interval. Confidence intervals are 95% bias-corrected confidence intervals based on 5,000 samples.

Table 17

Exploratory: Multilevel Model Results for Hypothesis 7 with Turnover

Type	Predictor	Unstandardized Estimates		Standardized Estimates		95% CI		
		Estimate	<i>SE</i>	Beta	Critical ratio	<i>p</i>	Lower Bound	Upper Bound
Belongingness on Level 1	Categorical Race	.01	.03	.01	.28	.78	-.05	.08
	Racial Dissimilarity	.15	.38	.02	.38	.70	-.71	.79
	Racial Dissimilarity x Categorical Race	.01	.43	.01	.23	.82	-.65	1.02
	Age	.00	.00	.04	1.35	.18	-.00	.01
	Tenure	-.01	.00	-.09	-3.16	.00	-.01	-.00
	Gender	.04	.07	.01	.55	.58	-.10	.17
Turnover on Level 1	Belongingness	-.37	.06	-.16	-5.89	.00	-.48	-.23
	Age	-.03	.01	-.15	-3.30	.00	-.04	-.01
	Tenure	-.07	.01	-.36	-5.16	.00	-.10	-.04
	Gender	-.29	.21	-.05	-1.35	.18	-.70	.12
Level 2	Belongingness on Diversity Climate	1.01	.07	.38	15.55	.00	.89	1.17
	Turnover on Diversity Climate	.45	.55	.07	.82	.41	-.99	1.25
Cross-Level Interactions	Belongingness on Categorical Race x Diversity Climate	-.13	.15	-.02	-.86	.39	-.46	.11
	Belongingness on Racial Dissimilarity x Diversity Climate	2.38	2.20	.11	1.08	.28	-.61	7.53
	Belongingness on Racial Dissimilarity x Categorical Race x Diversity Climate	-1.56	2.33	-.07	-.67	.50	-6.59	1.67

Note: *SE* = Standard Error; CI = Confidence Interval. Confidence intervals are 95% bias-corrected confidence intervals based on 5,000 samples.

Table 18

Exploratory: Multilevel Model Results for Hypotheses 5 and 7 with Black Race and Turnover

		Hypothesis 5						Hypothesis 7					
		Unstandardized Estimates		Standardized Estimates	95% CI			Unstandardized Estimates		Standardized Estimates	95% CI		
Type	Predictor	Estimate	SE	Beta	Critical ratio	Lower Bound	Upper bound	Estimate	SE	Beta	Critical ratio	Lower Bound	Upper Bound
Belongingness on Level 1	Black Race	-.02	.04	-.01	-.54	-.01	.06	-.03	.04	-.02	-.78	-.12	.05
	Racial Dissimilarity	-	-	-	-	-	-	.37	.19	.06	1.89	.00	.77
	Black Race x Racial Dissimilarity	-	-	-	-	-	-	-.34	.28	-.03	-1.22	-.98	.16
	Age	.00	.00	.04	139	-.00	.00	.00	.00	.04	1.44	-.01	.01
	Tenure	-.01**	.00	-.09	-3.30	-.01	-.00	-.01**	.00	-.09	-3.17	-.01	-.00
	Gender	.40	.07	.01	.58	-.09	.17	.03	.07	.01	.51	-.08	.16
Turnover on Level 1	Belongingness	-.20***	.03	-.16	-6.28	-.25	-.13	-.37***	.06	-.16	-5.89	-.48	-.23
	Age	-.01**	.00	-.15	-3.47	-.02	-.01	-.03**	.01	-.51	-3.30	-.04	-.01
	Tenure	-.03***	.01	-.32	-5.43	-.05	-.02	-.07***	.01	-.36	-5.16	-.10	-.04
	Gender	-.18	.11	-.05	-1.69	-.39	.02	-.29	.21	-.05	-1.35	-.70	.12
Level 2	Belongingness on Diversity Climate	1.02***	.08	.38	13.61	.85	1.17	1.02***	.07	.38	15.17	.88	1.18
	Turnover on Diversity Climate	.24	.32	.07	.74	-.89	.60	.45	.55	.07	.82	-.99	1.25
Cross-Level Interactions (Y = Belongingness)	Black Race x Diversity Climate	.09	.15	.01	.61	-.31	.33	-.03	.22	.03	-.13	-.60	.34
	Racial Dissimilarity x Diversity Climate	-	-	-	-	-	-	1.02	.56	-.00	1.84	-.11	2.34
	Black Race x Racial Dissimilarity x Diversity Climate	-	-	-	-	-	-	-.36	1.05	-.01	-.34	-2.73	1.54

Note: * $p < .05$, ** $p < .01$, *** $p < .001$; Outcome is belongingness; SE = Standard Error; CI = Confidence Interval. Confidence intervals are 95% bias-corrected confidence intervals based on 5,000 samples.

Table 19

Exploratory: Multilevel Model Results for Hypotheses 5 and 7 with Hispanic Race and Turnover

		Hypothesis 5						Hypothesis 7					
		Unstandardized Estimates		Standardized Estimates	95% CI			Unstandardized Estimates		Standardized Estimates	95% CI		
Type	Predictor	Estimate	SE	Beta	Critical ratio	Lower Bound	Upper bound	Estimate	SE	Beta	Critical ratio	Lower Bound	Upper Bound
Belongingness on Level 1	Hispanic Race	.02	.05	.01	.46	-.09	.12	.04	.04	.02	.95	-.04	.12
	Racial Dissimilarity	-	-	-	-	-	-	.27	.16	.04	1.71	-.04	.58
	Hispanic Race x Racial Dissimilarity	-	-	-	-	-	-	-.08	.23	-.01	-.34	-.47	.42
	Age	.00	.00	.04	1.41	-.00	.01	.00	.00	.04	1.39	-.00	.01
	Tenure	-.01**	.00	-.09	-3.13	-.01	-.00	-.01**	.00	-.09	-3.16	-.01	-.00
	Gender	.04	.07	.02	.61	-.09	.17	.04	.07	.02	.62	-.09	.17
Turnover on Level 1	Belongingness	-.20***	.03	-.16	-6.01	-.26	-.13	-.37***	.06	-.16	-5.89	-.48	-.23
	Age	-.02***	.00	-.16	-3.71	-.02	-.01	-.03**	.01	-.15	-3.30	-.05	-.01
	Tenure	-.03***	.01	-.32	-5.22	-.05	-.02	-.07**	.01	-.36	-5.16	-.11	-.04
	Gender	-.15	.11	-.04	-1.41	-.36	.05	-.29	.21	-.05	-1.35	-.83	.12
Level 2	Belongingness on Diversity Climate	1.03***	.08	.39	12.90	.90	1.24	1.01***	.07	.38	15.66	.89	1.16
	Turnover on Diversity Climate	.40	.27	.12	1.49	-.33	.82	-.37	.06	.07	-5.89	-.99	1.25
Cross-Level Interactions (Y = Belongingness)	Hispanic Race x Diversity Climate	-.08	.20	-.01	-.40	-.61	.28	-.16	.18	-.02	-.90	-.61	.07
	Racial Dissimilarity x Diversity Climate	-	-	-	-	-	-	.49	.59	.02	.83	-.42	1.99
	Hispanic Race x Racial Dissimilarity x Diversity Climate	-	-	-	-	-	-	1.08	1.05	.03	1.03	-1.58	2.55

Note: * $p < .05$, ** $p < .01$, *** $p < .001$; Outcome is belongingness; SE = Standard Error; CI = Confidence Interval. Confidence intervals are 95% bias-corrected confidence intervals based on 5,000 samples.

Table 20

Exploratory: Multilevel Model Results for Hypotheses 5 and 7 with Other Race and Turnover

		Hypothesis 5						Hypothesis 7					
		Unstandardized Estimates		Standardized Estimates	95% CI			Unstandardized Estimates		Standardized Estimates	95% CI		
Type	Predictor	Estimate	SE	Beta	Critical ratio	Lower Bound	Upper bound	Estimate	SE	Beta	Critical ratio	Lower Bound	Upper Bound
Belongingness on Level 1	Other Race	.27	.14	.04	1.87	-.05	.49	.19	.30	.03	.62	-.41	.72
	Racial Dissimilarity	-	-	-	-	-	-	.16	.13	.02	1.27	-.08	.42
	Other Race x Racial Dissimilarity	-	-	-	-	-	-	.30	1.06	.02	.28	-2.01	1.92
	Age	.00	.00	.04	1.33	-.00	.01	.00	.00	.04	1.32	-.00	.01
	Tenure	-.01**	.00	-.08	-3.13	-.01	-.00	-.01**	.00	-.08	-.313	-.1	-.00
	Gender	.04	.07	.01	.59	-.09	.17	.04	.07	.02	.60	-.09	.17
Turnover on Level 1	Belongingness	-.20***	.03	-.16	-6.13	-.25	-.13	-.37***	.06	-.16	-5.89	-.48	-.23
	Age	-.01***	.00	-.15	-3.53	-.00	.01	-.03**	.01	-.15	-3.30	-.04	-.01
	Tenure	-.03***	.01	-.32	-5.36	-.05	-.02	-.07***	.01	-.36	-5.16	-.10	-.04
	Gender	-.17	.11	-.05	-1.58	-.38	.04	-.29	.21	-.05	-1.35	-.70	.12
Level 2	Belongingness on Diversity Climate	1.02***	.06	.38	16.26	.89	1.15	1.02***	.06	.38	1.31	.89	1.16
	Turnover on Diversity Climate	.24	.30	.07	.77	-.53	.65	.45	.55	-.16	.82	-.99	1.25
Cross-Level Interactions (Y = Belongingness)	Other Race x Diversity Climate	-.04	.49	-.00	-.08	-.77	1.01	.63	1.74	.03	.36	-3.59	3.81
	Racial Dissimilarity x Diversity Climate	-	-	-	-	-	-	.99	.39	.05	2.56	-.02	1.61
	Other Race x Racial Dissimilarity x Diversity Climate	-	-	-	-	-	-	-2.16	5.42	-.04	-.40	-10.61	14.36

Note: * $p < .05$, ** $p < .01$, *** $p < .001$; Outcome is belongingness; SE = Standard Error; CI = Confidence Interval. Confidence intervals are 95% bias-corrected confidence intervals based on 5,000 samples.