WELL-BEING IN THE CONTEXT OF WORKPLACE ETHNIC DIVERSITY

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This research examined the relation between the effects of workplace diversity (defined as the proportion of coworkers of same ethnicity as the respondent) and psychosomatic complaints, psychological well-being, life satisfaction, and job satisfaction. A sample of 648 African American and Latino workers was surveyed in Chicago and New York City. A nonlinear (inverted U-shaped) relationship between co-ethnicity and the outcomes was found, such that poorer psychological functioning was observed among workers with a very small or a very high proportion of co-ethnic coworkers. The importance of disentangling the meaning of diversity in light of occupational segregation issues is discussed. © 2006 Wiley Periodicals, Inc.

The consequences of the context of work for individuals' well-being have received a great deal of scholarly and public policy attention over the past two decades. However, the attention given to workers of color has been limited. This neglect needs to be addressed, given the increasing proportion of workers of diverse racial/ethnic backgrounds that constitute the U.S. labor force (Fullerton & Toossi, 2001). Whereas European Americans constituted 77.7% of the U.S. labor force in 1990, that proportion dropped to 73.1% in the year 2000, and it is projected to continue to decrease to 69.2% in the year 2010

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(Fullerton & Toossi). Currently, African American and Latino workers represent 11.8% and 10.9%, respectively, of the U.S. labor force (Fullerton & Toossi). As their representation in the workforce continues to grow at the national level, it is important to understand how this composition may play a role in their mental health and subjective well-being. In this study, we examined diversity in the workforce in terms of the representation of one's ethnic group in the workplace (henceforth referred to as *co-ethnic* coworkers). In the following section ,we provide an overview of the literature on diversity and its implications for the psychological functioning of African American and Latino workers.

DIVERSITY

The term *diversity* refers to the representation of different social categories, often based on gender, race, or ethnicity, in an organization. A trend that has gained interest in the study of diversity is analyzing relational demography (Riordan & Shore, 1997; Tsui, Egan, & O'Reilly, 1992; Tsui & O'Reilly, 1989), defined as the individual's demographic similarity or dissimilarity to other members of the organization or organizational subgroup. The distribution of co-ethnic workers could have implications for the well-being of African American or Latino individuals. On the lower extreme of this distribution, one finds *tokenism*, a segregated work environment in which the minority group comprises less than 15% of the working group (Kanter, 1977). Along this continuum, a higher distribution of ethnic minority members would represent a "critical mass," possibly reaching equal representation relative to the culturally dominant group. On the upper extreme of the distribution of Latino or African American workers, one finds what scholars have labeled *ethnic minority concentration*, a segregated work environment in which most or all individuals in the working group belong to one of these ethnic categories.

Although relatively little diversity research has focused specifically on the effects of workplace racial and ethnic diversity on the psychological well-being of African American and Latino workers (for exceptions, see Jackson, Thoits, & Taylor, 1995), findings of this broader literature have implications for the understanding of psychological functioning. According to social psychological theories, such as social identity and self-categorization (Turner, 1982, 1984, 1987), tokenism has negative implications for the performance and well-being of ethnic minority members because race and ethnicity becomes more salient and visible when the group has a small representation in the workplace (Kanter, 1977). These processes invoke stereotyping and in-group favoritism that work against minority group members. Research on the effects of tokenism has shown that token members experience exclusion from informal social networks and receive lower performance evaluations as a result of increased pressures, visibility, and stereotyping (e.g., Kanter, 1977; Ott, 1989; Yoder, 1983, 1989). Indeed, there has been substantial evidence that token status is detrimental to minority individuals (e.g., Cohen & Swim, 1995; Kanter, 1977; Li, 1994; Ott, 1989; Yoder, 1983, 1989), although most research on tokenism has focused on gender, and few have considered race or ethnicity (Jackson et al., 1995; Li, 1994).

Some scholars have argued that once minority members reach or exceed a "critical mass," they are more likely to experience positive outcomes in their workgroups. It is possible that benefits to well-being may also accrue in the presence of similar others, that is, more co-ethnic coworkers. Studies have shown that similarity with others in background, values, and experience provides positive reinforcement of attitudes and results in more frequent communication, more social interaction, less conflict, and increased personal attraction and liking (Brass, 1985; Byrne, 1971; Lincoln & Miller, 1979; Mehra, Kilduff, &

Brass, 1998; Ibarra, 1995). In fact, some studies suggest that African American and Latino workers actively seek linkages, such as extensive communication networks and friendships, with other co-ethnics, even if outside of their immediate working unit (Mehra et al., 1998; Ibarra, 1995). In a study of Dutch workers, Verkuyten, de Jong, and Masson (1993) found that the more time individuals spent with others of similar ethnicity, the more satisfaction they reported. These findings support the notion that there is an incremental benefit for African American and Latino workers as their representation in the workplace increases.

However, these studies did not examine the upper extreme of the demographic continuum where there is a high concentration of either African American or Latino workers or both in the organization (with the exception of Jackson et al.'s 1995 study of Blacks in elite positions). Studies have shown a link between concentration of these ethnic groups and poor job quality, as indicated by low wages (Cantazarite, 2003; Kmec, 2003; Shumway & Cook, 1998). These poor working conditions, in turn, may have a detrimental impact on workers' psychological functioning. To our knowledge, there are no studies of diversity that have examined ethnically segregated workplaces in which African American or Latino workers comprise most or all of the workforce. Thus, the association between the increasing presence of co-ethnic workers and positive outcomes has not been tested in minority-concentrated workgroups where job conditions could counter the salubrious effects of co-ethnicity.

The findings of some studies suggest that the relation between diversity and psychological functioning may be nonlinear. Riordan and Shore's (1997) study suggested an inverted U-shape relation between positive outcomes and ethnic minority distribution. Because their study was conducted in a predominantly White organization, the examination of relational demography was done at the level of small working units. Their sample was 63% White, 34% African American, and 1% Hispanic and compared outcomes across three levels of ethnic distribution within work units or groups. Among Hispanic employees, those who worked in mostly White and mostly minority workgroups exhibited the lowest workgroup commitment and productivity and perceived fewer opportunities for advancement; whereas Hispanics in workgroups composed of 50% minorities and 50% Whites showed the highest workgroup commitment and productivity and perceived the most opportunities for advancement. In fact, they found that Hispanics in mostly minority work units reported the lowest level of these outcomes. On the other hand, among African American employees, there was no variation in commitment, productivity, or perceived opportunities for advancement as a function of ethnic composition of their work unit. These findings regarding the impact of co-ethnic concentration must be interpreted with caution given that Hispanics in this sample were a very small minority and, thus, were unlikely to comprise the majority of the workgroups composed of mostly minorities.

Knouse and Dansby's (1999) study also suggested an inverted U-shaped relation between proportion of minorities in the workgroup and positive job outcomes. This study did not examine relational demography, only distribution of minorities regardless of therespondent's ethnicity. Respondents, drawn from a sample of military personnel (59% White, 18% Black, 8% Hispanic), indicated the proportion of ethnic minorities in their workgroup and level of group performance. They found that the perception of workgroup effectiveness was highest in groups with 11–30% ethnic minorities, and declined as the proportion of ethnic minorities increased. In contrast to this finding of less optimal outcomes at higher levels of minority concentration, Jackson et al. (1995) reported finding a significant curvilinear relationship in which, at the highest percent-

age of Blacks at work, there was a decline in anxiety. They examined a sample of Black workers in elite positions and found that anxiety increased as the proportion of Blacks increased, but anxiety levels started to decline at the point in which Blacks reached 65% of occupational group composition.

In sum, some studies of diversity suggest a linear relation between the distribution of African American and Latino workers and positive individual outcomes among these ethnic groups, perhaps due, among other things, to decreased salience of racial and ethnic categories, less performance pressure, and more opportunities for networking with coethnics when co-ethnic representation is greater. Other studies, on the other hand, suggest a nonlinear relation, but a test of this relation with regard to psychological functioning and co-ethnic distribution has not been conducted with Latinos or African Americans in non-elite positions. Empirical tests are needed to determine the nature of the relation between workplace diversity and psychological functioning.

CURRENT STUDY

In the current study, we aimed to expand previous research on workplace diversity and psychological functioning with a two-pronged approach. First, we examined indicators of psychological functioning not examined in past diversity research, specifically somatization, psychological well-being, and life satisfaction, in addition to job satisfaction. Somatization has been described as an important mental health indicator when studying ethnic minority populations because there may be a "cultural tendency of minorities to 'somatize' psychological problems" (Vega & Rumbaut, 1991, p. 357). The multidimensional construct of psychological well-being has been developed to broaden the notion of mental health as the "absence of illness" by including the "presence of wellness" (e.g., Ryff & Keyes, 1995). Second, we examined relations between diversity and psychological functioning adjusting for the effect of other job conditions that are proxies of job quality, such as demands, discretion, insecurity, and hours worked, that have not been included in previous studies of workplace diversity.

In light of the theories and empirical findings reviewed above, we explored a double hypothesis with regard to the effects of diversity on psychological functioning. Diversity was operationalized as the perceived proportion of co-ethnic workers, that is, coworkers of the respondent's same ethnicity. On one hand, a linear relation may be found between the proportion of co-ethnic workers and psychological functioning, such that Latino and African American individuals who report working with higher proportions of co-ethnic others would report higher levels of psychological well-being, life satisfaction, and work satisfaction, and lower levels of psychosomatic complaints, controlling for sociodemographic variables, and nonracial job conditions. On the other hand, a quadratic relation may be found given theories and previous findings that suggest that the diversity level optimal for individual well-being may be that at which minority groups exceed a token level and different groups are closer in relative size (Riordan & Shore, 1997). Based on this competing nonlinear hypothesis, we may find that Latinos and African Americans who report moderate proportions of co-ethnic workers will report the highest levels of psychological well-being, life satisfaction, and work satisfaction, and the lowest level of psychosomatic complaints, compared to those who report small and large proportions of co-ethnic workers. In other words, individuals working in segregated environments where there is tokenism (a small proportion of co-ethnics) or minority concentration (a large proportion of co-ethnics) will report the lowest levels of psychological well-being, life satisfaction, and work satisfaction, and the highest levels of psychosomatic complaints.

METHOD

Procedure

The data for the present study are drawn from The Survey of Minority Groups, one of several studies of midlife development in the United States (MIDUS) conducted under the auspices of the John D. and Catherine T. McArthur Foundation's Research Network on Midlife Development (Hughes & Shweder, 2002). The Survey was based on a stratified sample of men and women ages 25 and older. It targeted African Americans and Dominicans in New York City, Mexicans in Chicago, and Puerto Ricans in both cities (Hughes, 2001, 2003; Ryff, Keyes, & Hughes, 2003).

A two-stage sampling procedure was used to identify respondents (see Hughes, 2003). First, Census Block Groups were randomly selected after stratifying them by ethnic composition and socioeconomic status of each ethnic group based on 1990 U.S. Census. Second, quotas of ethnic groups were established within randomly selected Census Block Groups. Interviewers identified eligible respondents by screening residents door to door. Screenings and interviews were conducted in respondents' homes during the day and evening. One eligible respondent per household participated in 1.5- to 2-hour structured interviews in English or Spanish, according to the respondent's preference.

Sample

The sample of the larger study consisted of 1,309 Black (26%), Dominican (22%), Mexican (22%), and Puerto Rican (39%) adults aged 25 years and older. In the analyses described here, we utilized a subsample of 648 of these respondents who were employed for 20 hours a week or more at the time of the interview and had data on the variables of interest. The majority of respondents were men (60%) and the average age was 39 years (range 21–69). The ethnic composition of the sample, based on self-reported ethnicity, was 34% Puerto Rican, 24% non-Hispanic Black, 22% Mexican, and 21% Dominican. Most of them (57%) were immigrants. The majority of the sample (65%) resided in New York City, the rest lived in Chicago. The mean (and median) educational attainment of the sample was graduation from high school. Further analyses showed that 34% of respondents did not complete high school or had a GED, whereas only 11% had a college degree. The median income was \$25,000–\$29,999.

Measures

Demographic characteristics. Gender, age, educational attainment, annual household income, ethnicity, place of birth (i.e., immigrant status), and city of residence were included in all analyses as covariates. Gender was coded as 1 = male, 2 = female. Age was represented with a continuous variable (range 21–69 years). Educational attainment was represented with an ordinal variable ranging from 1 (some grade school) to 12 (professional

degree). Annual household income was represented with an ordinal variable consisting of 32 categories ranging from 1 = less than \$0 (or losses) to 32 = \$150,000-\$199,999. A set of three dummy variables was used to represent four categories of ethnicity: non-Hispanic Black, Dominican, Mexican, and Puerto Rican. In all analyses, non-Hispanic Black was the reference group. The analyses were also adjusted for the city of residence (1 = New York, 2 = Chicago) and place of birth (1 = U.S., 2 = Foreign-born).

Job characteristics. Several job characteristics were included as covariates in the analyses to adjust for differences in job quality. These covariates were hours of work per week, job insecurity, skill discretion, and psychological demands or workload. Hours worked was the sum of the number of hours per week respondents said they worked for pay in their main job and in a second job, if they had one (range 20–120 hours). Job insecurity was assessed with a single item: "If you wanted to stay in your present job, what are the chances that you could keep it for the next two years?" The response scale ranged from 1 = excellent to 5 = poor. Job demands and skill discretion were assessed using the corresponding two scales of Karasek's Job Content Instrument (Karasek et al., 1998). Skill discretion consisted of the unweighted mean of seven items about the level of skill and creativity required on the job, the flexibility permitted the worker in deciding what skills to employ, as well as possibilities mediated by the organization for workers to make decisions about their work (e.g., "My job requires that I learn new things."). Psychological workload and demands was the unweighted mean of seven items related to "how hard workers work," the amount of effort and pressure the job demanded, organizational constraints on task completion, and conflicting demands (e.g., "My job requires working very fast."). Respondents answered each job content item on a 4-point scale, where 1 = strongly agree and 4 = strongly disagree. Higher scores indicated higher demands or higher skill discretion. The internal consistency of skill discretion (Cronbach's a = .77) and job demands (Cronbach's a = .60) were similar to reliability coefficients for these factors based on cross-cultural studies reported in Karasek et al.

Racial and ethnic diversity. Perceived diversity was assessed as the presence of co-ethnics in the workplace. The proportion of co-ethnics was assessed with a single item that asked how many coworkers were of the same ethnicity as the respondent, on a scale from 1 = none to 6 = all. A squared term of this item was also included in analyses to test nonlinear associations with this construct.

Psychological functioning. Four indicators of psychological functioning were examined in the study. The first was psychosomatic complaints of distress in the previous 3 months. Symptoms included headaches, problems falling asleep, pains in the heart or chest, nausea or upset stomach, trouble concentrating, and lower back pain. The variable used in analyses was the unweighted mean of 13 items (Cronbach's $\alpha=.86$). Respondents used a 5-point scale (1=never, 5=very often) to indicate frequency of symptomatology. The second was an 18-item measure of psychological well-being that examined six dimensions of wellness: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance (Ryff & Keyes, 1995). Respondents answered on a 7-point Likert scale (1=strongly agree, 4=don't know, 7=strongly disagree). The mean of 18 items (with internal consistency Cronbach's $\alpha=.72$) was used because the study did not have specific hypotheses regarding differential relations between the six dimensions and the predictors examined in the study. The third indicator was a single-item measure of global life

satisfaction typically used in previous studies (e.g., Schulz et al., 2000). Respondents indicated how satisfied they were with life at present using a 4-point scale ($1 = not \ at \ all$, $4 = a \ lot$). The fourth was a measure of satisfaction in the domain of work. Respondents were asked to rate their current work situation from 0 (the worst possible) to 10 (the best possible).

RESULTS

Descriptive Statistics

The matrix in Table 1 shows the means and standard deviations, as well as zero-order correlation coefficients of study variables. Respondents with higher educational attainment were less likely to report working with co-ethnics. With regards to indicators of job quality, respondents who reported a greater proportion of co-ethnic workers also reported higher job demands and lower skill discretion.

Regression Analyses

Hypotheses regarding relations between co-ethnicity and psychological functioning were examined using hierarchical multiple regression analyses. This analytical strategy allowed us to assess the significance of nonlinear effects of the proportion of co-ethnics in the workplace. The first step of the regression equation included all covariates (i.e., demographic variables and job conditions). The linear term of proportion of co-ethnics among coworkers was entered at step 2. The model at step 3 included the quadratic term of the proportion of co-ethnic workers. Separate regression equations were computed for each outcome variable. Regression results are shown in Table 2.

The second column of Table 2 shows results of the regression analyses predicting psychosomatic complaints. A statistically significant increase in explained variance at Step 3 was observed, which indicated that the proportion of co-ethnics in the workplace had a nonlinear relation with frequency of psychosomatic complaints. Figure 1a shows that frequency of symptoms was higher among respondents with either a low or high proportion of co-ethnic workers, whereas frequency of symptoms was lowest among respondents in workplaces where the proportion of co-ethnics was at the middle level. The results for psychological well-being appear in the third column of Table 2. There was a marginally significant linear and nonlinear association between the proportion of co-ethnic coworkers and psychological well-being, showing a trend towards a drop in well-being at high concentrations of co-ethnics in the workplace (see Figure 1b).

Results for life satisfaction are shown in the fourth column of Table 2. The proportion of co-ethnics in the workplace had a statistically significant nonlinear association with this outcome. Figure 1c shows that respondents who worked with a more balanced proportion of co-ethnics reported higher levels of life satisfaction than respondents who worked with a low or high proportion of co-ethnics. Similar results were found for the analysis of job satisfaction. As shown in the last column of Table 3, there was a statistically significant nonlinear relation between job satisfaction and proportion of co-ethnics. Figure 1d depicts this relation. Respondents who worked with a more balanced proportion of co-ethnics reported higher levels of job satisfaction than respondents who worked with a low or high proportion of co-ethnics.

Table 1. Descriptive Statistics and Correlations of Study Variables (N=648)

	M SD	QS	I	2	S	4	5	9	7	8 9		10 11	12	13	14 15 16	15		17	18
1. Age	38.72		I																
2. Gender	1.40		0.04	I															
3. Education	4.93	2.65	-0.11	0.07	I														
4. Income	22.81	5.54	0.06	*60.0-	0.30*														
5. City	1.35	0.48	-0.09		-0.34*-0.10*	-0.10*													
6. Dominican	0.21	0.40	0.02	0.00	0.02	0.02 -0.19*-0.37*	0.37*												
7. Mexican	0.22		-0.07	0.01	-0.38*-	-0.13*	-0.38*-0.13* 0.72*-0.27*	0.27*											
8. Puerto Rican	0.34		0.02	0.01	80.0	0.11*	0.11* 0.06 -0.36*-0.38*	0.36* - (.38*	1									
9. Foreign-born	1.57		0.15*	0.03	-0.30*-0.24*	-0.24*	0.35* (0.29* (0.29* 0.36* -0.09*	- *60.0									
10. Hours worked	42.64	42.64 12.29	-0.05	-0.05 -0.09* 0.01		0.05	0.13* 0.02		0.19* - (0.19*-0.11* 0.09*	- *6(
11. Demands	2.39		-0.16*-0.03	-0.03	0.06 - 0.03		0.02 -0.02)- 70.0	0.07 -0.10*-0.11*	11* 0.03								
12. Skill discretion	3.00	0.63	-0.05	0.00	0.30*	0.23*-	0.01	0.06	0.12* ($0.30* \ 0.23*-0.01 \ -0.06 \ -0.12* \ 0.14*-0.15* \ 0.07 \ -0.06$	15* 0.07	7 -0.06	I						
13. Insecurity	1.80	1.05		-0.10* 0.13*	- 90.0-	-0.12*	0.10* →	0.10* ()-*60.C	$-0.06 \ -0.12* \ 0.10* -0.10* \ 0.09* -0.04 \ \ 0.00 \ -0.15* \ 0.16* -0.25*$	00 -0.15	;* 0.16	*-0.25*	I					
14. Co-ethnics	3.19	1.34	-0.06	-0.06	-0.09*-0.04		0.07	-0.01	0.11*-0.12*).12* 0.0	0.03 - 0.07		0.18*-0.10*-0.01	-0.01					
15. Co-ethnics ²	11.98	80.6	-0.06	90.0-	-0.10*-0.06		0.08* 0.00		0.12* - (0.12*-0.12* 0.05	05 -0.07		0.16*-0.08*-0.03		.88%	I			
16. Psychosomatic																			
complaints	1.27	0.45	0.08*	0.08* 0.20*		0.02 -0.07 -0.02		0.00 -0.02		0.02 -0.04 -0.03)4 -0.03		0.00 -0.02	0.06 -0.05 -0.02	-0.05 -	-0.05	1		
17. Psych. well-being	5.80	0.78	0.03	-0.10	0.07	0.22*-0.05		0.00 -0.01		0.02 -0.01		0.10	$0.02 \ -0.10* \ 0.24*-0.15* \ 0.03$	-0.15*		0.02	-0.19*	I	
18. Life satisfaction	3.47	0.67	0.01	-0.03	0.05	0.19*	0.19* 0.15*-0.11* 0.07	0.11* (0.12* 0.06	- 60.0 90	6 -0.03	0.19*	0.19*-0.15*-0.02 -0.03	-0.02 -		-0.18*	0.30*	I
19. Job satisfaction	7.57	2.22	0.03	-0.03	0.05	0.25*	0.15*	-0.08	0.10* 0	0.03 -0.03		3* 0.02		0.21*-0.24* 0.05		0.03	-0.18*	0.11*	0.23*

Table 2. Hierarchical Regression Analysis of Psychological Functioning (N = 648)

	Psychosomatic complaints				sychologi well-beir		Lif	e satisfa	ction	Jol	satisfac	ction
Step and measure	В	SE B	β	В	SE B	β	В	SE B	β	В	SE B	β
Step 1	$R^2 =$.06, F =	= 3.00***	$R^2 =$	0.12, F	= 6.38***	$R^2 =$	0.11, F	= 6.16***	$R^{2} = 0$).17, F =	= 10.09***
Age	0.01	0.00	0.10^{*}	0.00	0.00	0.01	0.00	0.00	-0.00	0.01	0.01	0.05
Gender ^a	0.17	0.04	0.18***	-0.11	0.06	-0.07^{\dagger}	-0.03	0.05	-0.02	0.08	0.17	0.02
Education	0.01	0.01	0.03	-0.01	0.01	-0.02	0.01	0.01	0.03	-0.04	0.04	-0.05
Income	-0.01	0.00	-0.07	0.03	0.01	0.17^{***}	0.02	0.01	0.15***	0.09	0.02	0.22^{***}
City ^b	-0.03	0.06	-0.03	-0.24	0.11	-0.14*	0.16	0.09	0.12^{\dagger}	0.85	0.29	0.18^{**}
Dominican ^c	0.04	0.07	0.04	0.10	0.11	0.05	-0.01	0.09	-0.01	0.50	0.30	0.09^{\dagger}
Mexican	0.07	0.09	0.06	0.33	0.15	0.18^{*}	0.10	0.13	0.06	0.42	0.40	0.08
Puerto Rican	0.04	0.06	0.05	0.10	0.09	0.06	0.14	0.08	0.10^{\dagger}	0.17	0.26	0.04
Foreign-born ^d	-0.09	0.05	-0.10^{\dagger}	0.06	0.08	0.04	0.11	0.07	0.08	-0.43	0.22	-0.10^{\dagger}
Hours												
worked/week	0.00	0.00	0.00	-0.00	0.00	-0.02	-0.00	0.00	-0.01	0.01	0.01	0.07^{\dagger}
Job demands	0.02	0.03	0.02	-0.13	0.06	-0.09^*	0.01	0.05	0.01	0.17	0.16	0.04
Job skill												
discretion	-0.02	0.03	-0.03	0.27	0.05	0.22***	0.14	0.04	0.14^{**}	0.50	0.14	0.14^{***}
Job insecurity	0.02	0.02	0.04	-0.04	0.03	-0.05	-0.08	0.03	-0.12**	-0.41	0.08	-0.19***
Step 2	$\Delta R^2 =$	0.00, F	= 0.77	$\Delta R^2 =$	0.005, F	$7 = 3.25^{\dagger}$	ΔR^2 =	= 0.00, 1	F = .02	$\Delta R^2 =$	0.002, 1	F = 1.87
Co-ethnics (CE)	-0.02	0.01	-0.06	0.04	0.02	0.07^{\dagger}	0.01	0.02	0.01	0.11	0.06	0.07^{\dagger}
Step 3	$\Delta R^2 = 0$	0.02, F =	12.92***	$\Delta R^2 =$	0.005, I	$r = 3.42^{\dagger}$	$\Delta R^2 =$	0.008, F	= 5.45*	$\Delta R^2 =$	0.008, F	$7 = 6.45^*$
Co-ethnics ²	0.03	0.01	0.14^{***}	-0.03	0.02	-0.07^{\dagger}	-0.03	0.01	-0.09*	-0.11	0.04	-0.10*
Final R ²		0.08			0.13			0.12			0.18	
(adjusted R^2)		(.06)			(.10)			(.10)			(.16)	

Note. All coefficients are from the final equation. Degrees of freedom of F tests in all outcomes at Step 1 (13, 634), Step 2 (2, 632), Step 3 (1, 631), Step 4 (1, 630).

A test of whether these nonlinear effects varied by ethnic group showed no significant moderation effects, with the exception of life satisfaction. A statistically significant difference emerged between Dominicans and Puerto Ricans, where co-ethnicity and life satisfaction were more highly associated among Dominicans than Puerto Ricans.

DISCUSSION

The goal of this study was to contribute to the scarce empirical literature that sheds light on the psychological functioning of African American and Latino workers in the context of workplace ethnic diversity. By testing a double hypothesis concerning linear and non-linear effects of diversity on psychosomatic complaints, psychological well-being, life satisfaction, and job satisfaction, the study findings yielded support to an inverted U-shape relation between diversity and positive well-being outcomes.

 $^{^{\}circ}$ Gender: 1 = Men, 2 = Women. $^{\circ}$ City: 1 = NY, 2 = Chicago. $^{\circ}$ Ethnicity reference: African Americans. d Foreign-born: 1 = No, 2 = Yes.

 $^{^{\}dagger}$ p < .10. * p < .05. ** p < .01. *** p < .001 (two-tailed).

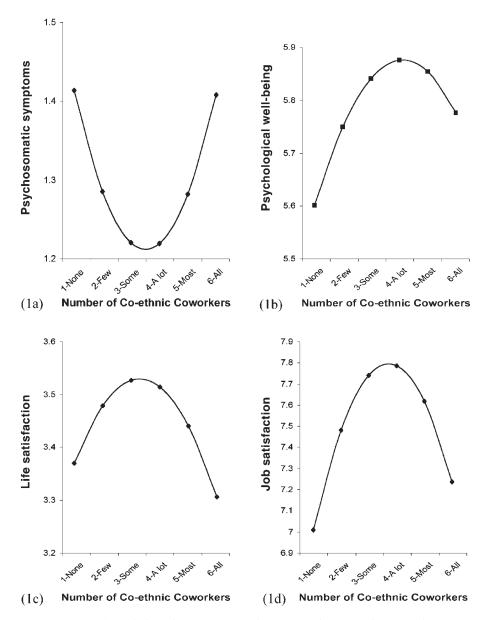


Figure 1. Psychological functioning in relation to number of co-ethnic coworkers.

Psychological Functioning in the Context of Diversity

Existing empirical literature on the effects of diversity on minority group members led us to test a double hypothesis with regard to whether the effect of co-ethnicity on psychological functioning, if observed, would be linear or nonlinear. Results provided support for a nonlinear association as hypothesized based on the literature about segregated work environments, where there is either tokenism (a small proportion of co-ethnics) or minority concentration (a large proportion of co-ethnics), and on studies testing the

effects of a critical mass and equal distribution of social groups in the work unit. As seen in Figure 1, we found that levels of psychological functioning were better for respondents who worked with a midlevel proportion of co-ethnics than for those in workplaces with tokenism or a minority concentration. At the extremes of the distribution of co-ethnic workers, with "none" on one hand or "all" on the other, psychosomatic complaints were at the highest level, and life and job satisfaction were at the lowest level. An exception to this pattern was observed in relation to psychological well-being, where the nonlinear association was only marginally significant. Nevertheless, Figure 1b shows a downward turn for respondents who worked in co-ethnic concentrated jobs, but the rate of decline is slower than for the other outcome variables.

The evidence found in this study of a nonlinear relationship between co-ethnicity and psychological functioning makes a unique contribution to the literature on diversity. Although past studies (e.g., Cohen & Swim, 1995; Kanter, 1977; Li, 1994; Ott, 1989; Yoder, 1983, 1989) had provided evidence that tokenism had detrimental effects on minority workers and that achieving a critical mass of minority workers improved outcomes for this group, there had been no test of the mental health and well-being effects of a high concentration of co-ethnic coworkers. The sociological literature on occupational segregation (e.g., Cantanzarite, 2003; Kmec, 2003) has documented that Black and Latino workers tend to be concentrated in jobs with other ethnic minority members and, more important, that they are overrepresented in low-paying, low-status jobs, which are less likely to offer positive job characteristics, such as autonomy and skill discretion, that are related to positive psychological outcomes. We extrapolated from that literature to hypothesize that the tendency for minority members to accrue more positive outcomes as their numbers increased in their workgroups, would not hold for respondents working with a high concentration of African American or Latino workers, especially in a sample of respondents with low educational attainment and low income. According to social-identity and social-categorization theories (Turner, 1982, 1984, 1987) and the similarity-attraction paradigm (Byrne, 1971), surrounding oneself with others from the same social group (i.e., racial or ethnic) will enhance self-esteem, contribute to a positive social and personal identity, and provide positive reinforcement for one's characteristics, which, in turn, would lead to increased personal wellbeing. The findings suggest that this may be the case, but that these benefits may be countered by other socioeconomic phenomena associated with the distribution of race and ethnicity in the labor force. Thus, the decrease in life satisfaction and job satisfaction and the increase in psychosomatic complaints for respondents who worked with higher proportions of co-ethnics are likely due to mitigating factors associated with the concentration of Latino and African American workers. Future research that unpacks diversity to elucidate these factors is important to advance our knowledge in this area.

Implications

The findings of the current study and its limitations present a number of implications for future research, some of which have been mentioned above. For one, we need to understand the factors and mechanisms that account for the nonlinear association between diversity and well-being outcomes. Data are needed on the ethnicity of employees at different levels of the organization, the nature of interactions and quality of the relationships between these individuals, and the type of job, occupational sector, and working environment. Our findings pointed to some questions that could be answered if such data were

available. In addition, future studies that sample Latino and African American workers in a broad range of socioeconomic status would contribute to disentangling the confounding founders of SES, high concentration of co-ethnics at work, and occupational quality. The sample in this study was predominantly of low educational attainment and low income, and studies including more individuals of middle and high education and income are needed.

The findings of the study also suggest some practical implications. The racial and ethnic composition of the workplace is an important variable in the well-being of racial and ethnic minorities. This research suggests that affirmative action programs and minority-targeted scholarship and training programs are necessary to increase diversity in organizations to promote the well-being of underrepresented peoples. Similarly, the findings also underscore the need to ensure that workers in ethnic concentrated occupations receive the material and social support needed to foster their well-being. As the proportion of Latino and African American workers increase in the U.S. labor force, continued attention to their unique job stressors in dealing with diversity will help us address their mental health needs and foster culturally competent working environments.

REFERENCES

- Brass, D. (1985). Men and women's networks: A study of interaction patterns and influence in an organization. Academy of Management Journal, 28, 327-343.
- Byrne, D. (1971). The attraction paradigm. New York: Academic Press.
- Cantanzarite, L. (2003). Race-gender composition and occupational pay degradation. Social Problems, 50, 14-37.
- Cohen, L.L., & Swim, J.K. (1995). The differential impact of gender ratios on women and men: Tokenism, self-confidence, and expectations. Personality and Social Psychology Bulletin, 21, 876-884.
- Fullerton, H.N., & Toossi, M. (2001, November). Labor force projections to 2010: Steady growth and changing composition. Monthly Labor Review, 21-38.
- Hughes, D. (2001). Cultural and contextual correlates of obligation to family and community among urban Black and Latino adults. In A.S. Rossi (Ed.), Caring and doing for other: Social responsibility in the domains of family, work, and community (pp. 179-224). Chicago: University of Chicago Press.
- Hughes, D. (2003). Correlates of African American and Latino parents' messages to children about ethnicity and race: A comparative study of racial socialization. American Journal of Community Psychology, 31, 15-33.
- Hughes, D.L., & Shweder, R.A. (2002). Midlife development in the United States (MIDUS): Survey of minority groups (Chicago and New York City), 1995–1996 [Computer file; ICPSR version]. Ann Arbor, MI: Inter-university Consortium for Political and Social Research.
- Ibarra, H. (1995). Race, opportunity, and diversity of social circles in managerial networks. Academy of Management Journal, 38, 673–703.
- Jackson, P.B., Thoits, P.A., & Taylor, H.F. (1995). Composition of the workplace and psychological well-being: The effect of tokenism on America's Black elite. Social Forces, 74, 543-557.
- Kanter, R.M. (1977). Men and women of the corporation. New York: Bassie.
- Karasek, R., Brisson, C., Kawakami, N., Houtman, I., Bongers, P., & Amick, B. (1998). The Job Content Questionnaire (JCQ): An instrument for internationally comparative assessments of psychosocial job characteristics. Journal of Occupational Health Psychology, 3, 322–355.
- Kmec, J.A. (2003). Minority job concentration and wages. Social Problems, 50, 38-59.

- Knouse, S.B., & Dansby, M.R. (1999). Percentage of work-group diversity and work-group effectiveness. The Journal of Psychology, 133, 486–494.
- Li, J. (1994). Demographic diversity, tokenism, and their effects on individuals' behavior in group process. In D. P. Moore (Ed.), Best Paper Proceedings of the Academy of Management Conference, 118–128.
- Lincoln, J., & Miller, J. (1979). Work and friendship ties in organizations: A comparative analysis of relational networks. Administrative Science Quarterly, 24, 181–199.
- Mehra, A., Kilduff, M., & Brass, D. (1998). At the margins: A distinctiveness approach to the social identity and social networks of underrepresented groups. The Academy of Management Journal, 41, 441–452.
- Ott, E.M. (1989). Effects of the male-female ratio at work. Psychology of Women Quarterly, 13, 41–57.
- 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, 342–358.
- Ryff, C.D., Keyes, C.L.M., & Hughes, D.L. (2003). Status inequalities, perceived discrimination, and eudaimonic well-being: Do the challenges of minority life hone purpose and growth? Journal of Health and Social Behavior, 44, 275–291.
- Ryff, C.D., & Keyes, C.L.M. (1995). The structure of psychological well-being revisited. Journal of Personality and Social Psychology, 69, 719–727.
- Schulz, A., Williams, D., Israel, B., Becker, A., Parker, E., James, S.A., & Jackson, J. (2000). Unfair treatment, neighborhood effects, and mental health. Journal of Health and Social Behavior, 41, 314–332.
- Shumway, J.M., & Cooke, T.J. (1998). Gender and ethnic concentration and employment prospects for Mexican-American migrants. Growth and Change, 29, 23–43.
- Tsui, A.S., Egan, T.D., & O'Reilly, C.A. (1992). Being different: Relational demography and organizational attachment. Administrative Science Quarterly, 37, 549–579.
- 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, 402–423.
- Turner, J.C. (1982). Toward a cognitive definition of the group. In H. Tajfel (Ed.), Social identity and intergroup relations (pp. 15–40). Cambridge: Cambridge University Press.
- Turner, J.C. (1984). Social identification and psychological group formation. In H. Tajfel (Ed.), The social dimension: European developments in social psychology, 2 (pp. 518–540). Cambridge, UK: Cambridge University Press.
- Turner, J.C. (1987). Rediscovering the social group: A social categorization theory. Oxford, UK: B. Blackwell.
- Vega, W.A., & Rumbaut, R.G. (1991). Ethnic minorities and mental health. Annual Review of Sociology, 17, 351–383.
- Verkuyten, M., de Jong, W., & Masson, C. (1993). Job satisfaction among ethnic minorities in the Netherlands. Applied Psychology: An International Review, 42, 171–189.
- 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.
- Yoder, J.D. (1983). Another look at women in the Army: A comment on Woelfel's article. Sex Roles, 9, 285–288.
- Yoder, J.D. (1989). Women at West Point: Lessons for women in male-dominated occupations. In J. Freeman (Ed.), Women: A feminist perspective (4th ed., pp. 523–537). Mountain View, CA: Mayfield.