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# Racioethnic Diversity and Group Members' Experiences

## THE ROLE OF THE RACIOETHNIC DIVERSITY OF THE ORGANIZATIONAL CONTEXT

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This study examines the effects of a group's racioethnic diversity on its members' experiences in two organizational contexts: one that is relatively heterogeneous in racioethnicity and another that is more homogeneous. Additionally, this study examines the effects of diversity on the deeper level trait of collectivism, in both contexts. The authors propose that the extent of racioethnic diversity in the organizational context will determine whether group members pay attention and react to racioethnic category differences or focus on deeper level differences in values and attitudes within their groups. Consistent with this notion, it was found that a group's racioethnic diversity has stronger negative effects on its members' experiences in the more homogeneous context than in the more heterogeneous one. The authors also found that a group's diversity in collectivism has significant negative effects on its members' experiences in the more heterogeneous context but not in the more homogeneous one.

**Keywords:** race/ethnic diversity; diversity in values; context effects; group outcomes; group diversity

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In recent years, many researchers have sought to understand how diversity in the composition of teams affects team functioning (for recent reviews, see Jackson, May, & Whitney, 1995; Milliken & Martins, 1996; Pelled, Eisenhardt, & Xin, 1999; Riordan, 2000; Williams & O'Reilly, 1998). A large portion of this research has focused on the effects of racioethnic diversity, i.e., physical and/or cultural differences (Cox, 1993; Elsass & Graves,

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1997). However, this growing literature has yielded inconsistent findings about the effects of racioethnic diversity on the functioning of teams and the experiences of their individual members (Baugh & Graen, 1997; Harrison, Price, & Bell, 1998; O'Reilly, Williams, & Barsade, 1998; Williams & O'Reilly, 1998). Several researchers have suggested that these inconsistent results reflect the fact that there are variables that modify the effects of racioethnic diversity on group members' experiences and that these variables have not been examined adequately in prior research (e.g., Elsass & Graves, 1997; Lawrence, 1997; Milliken & Martins, 1996; Pelled, Eisenhardt, et al., 1999). One contingency variable that has been identified as potentially important is the racioethnic diversity of the organizational context in which groups function (Baugh & Graen, 1997; Milliken & Martins, 1996; Riordan, 2000; Tsui, Xin, & Egan, 1995; Williams & O'Reilly, 1998). Specifically, a group's racioethnic composition may have different effects when its context is racioethnically diverse than when its context is relatively homogeneous.

To date, empirical research on group diversity has almost exclusively studied diversity within a single organizational context or has controlled for context (e.g., Pelled, Eisenhardt, et al., 1999). Yet prior research at the individual level of analysis has found that the level of diversity in the organizational context affects the attitudes and experiences of minority individuals (e.g., Ely, 1994; Kanter, 1977; Konrad & Gutek, 1987; Williams & O'Reilly, 1998). Thus, several researchers have called for an examination of whether the diversity of the organizational context affects the way that diversity is experienced within *groups* in the organization (Baugh & Graen, 1997; Milliken & Martins, 1996; Riordan, 2000; Tsui et al., 1995; Williams & O'Reilly, 1998).

Milliken and Martins (1996), for example, commented that "the context in which the group is interacting is a critical, and understudied, variable likely to affect how the diversity or heterogeneity of a group affects outcomes" (p. 419). Also, Tsui and her colleagues (1995) have argued that the effects of demographic differences on dyadic relationships may vary as a function of the diversity in the dyad's organizational context. In addition, in a recent review of the literature, Riordan (2000) observed that examining the effects of organizational context on the relationship between group diversity and group members' experiences may help explain the inconsistent findings of prior research on the effects of demographic diversity.

In summary, these arguments suggest that it may be important to take the diversity of a group's organizational context into account in studying the effects of a group's diversity on its members' experiences. Thus, in this study, we sought to empirically examine whether the effects of a group's racioethnic diversity differ depending on the racioethnic composition of the

group's organizational context. Toward that end, we examined the effects of a group's racioethnic diversity on its members' experiences in two organizational contexts, one of which was more racioethnically diverse than the other. Further, we argue that the extent of racioethnic diversity in the organizational context will determine whether group members focus on racioethnic category differences in their group or look beyond such surface-level differences at deeper level differences in values and attitudes. To test this idea, we examined differences in the effects of a group's diversity with respect to a value that is highly relevant for interdependent groups—the value of collectivism—on members' experiences in the two organizational contexts.

### THEORY AND HYPOTHESES

In their review of 40 years of research on diversity, Williams and O'Reilly (1998) concluded that

two major findings from the research on diversity appear to be well supported. *First, there is substantial evidence . . . that variations in group composition can have important effects on group functioning . . . [and] that at the micro level, increased diversity typically has negative effects on the ability of the group to meet its members' needs and to function effectively over time.* [italics in original] (pp. 115-116)

Reflecting this perspective, we studied factors associated both with the ability of the group to meet its members' needs and the group's ability to function effectively over time (Bettenhausen, 1991; Hackman, 1990). Specifically, we studied the effects of diversity on the degree to which groups met members' needs with respect to group members' satisfaction with the group, the stress experienced by group members, and the degree to which members' evaluations of the group were positive. We also explored dimensions reflecting a group's ability to function effectively over time by assessing the amount of intragroup conflict and uncertainty experienced by group members, the difficulty group members experienced in understanding each other, and the level of trust group members had in each other.

Prior research on diversity has primarily used social categorization theory and the similarity attraction paradigm to understand the relationship between a group's racioethnic diversity and its members' experiences (Riordan, 2000; Williams & O'Reilly, 1998). Social categorization theory suggests that individuals use social categories as a heuristic device that helps them to make sense of social contexts and to organize diverse information (Tajfel, 1981; Turner, 1987). When social categories are salient, people respond to others in

terms of their group membership rather than in terms of their personal identity, a process resulting in depersonalization (Brewer & Brown, 1998; Brown & Turner, 1981). Furthermore, social categorization theorists have argued that group members differentiate in-group members from out-group members and demonstrate in-group favoritism and out-group derogation in a quest for positive social identity (Brewer & Brown, 1998; Tajfel, 1981; Turner, 1987). It follows that when individuals categorize their fellow workgroup members in terms of their racioethnic identity, differences in racioethnicity among group members can create negative intragroup processes (Elsass & Graves, 1997; Pelled, Eisenhardt, et al., 1999; Williams & O'Reilly, 1998). Specifically, depersonalization and out-group derogation can create a set of problematic stereotyped expectations of group members who are different from oneself (Brewer & Brown, 1998). Thus, prior research on racioethnic diversity based on social categorization theory has argued that group members will have a positive bias toward other members who belong to their own racioethnic group and a negative bias toward those who do not (e.g., Konrad & Gutek, 1987; Pelled, Eisenhardt, et al., 1999; Tsui, Egan, & O'Reilly, 1992).

The similarity-attraction effect, whereby individuals are attracted to those who are similar to themselves (Byrne, 1971), is one of the most robust findings in social psychology. The psychological mechanism underlying similarity-attraction processes is reinforcement—when people perceive others as similar to them, they feel reinforced, leading to more positive self-conceptions. Thus, people are attracted to similar others because similar others make them feel that their defining qualities are socially accepted and validated, making them feel good about themselves. This process is likely to be reciprocated and thus further reinforced (Clore & Byrne, 1974). Conversely, research has argued that people are initially less attracted to dissimilar others because they experience dissimilarity as negative reinforcement (Rosenbaum, 1986). Researchers utilizing the similarity/attraction paradigm to predict the effects of racioethnic diversity have argued that because racioethnicity is a salient characteristic, group members are more likely to be drawn to other group members who are similar to themselves in racioethnicity and will be less drawn to those who are not (e.g., Jackson et al., 1991; Wagner, Pfeffer, & O'Reilly, 1984).

Both social categorization theory and the similarity/attraction paradigm assume that racioethnicity is a salient characteristic that will be used to define or categorize group members. Elsass and Graves (1997), for example, note that group “members typically use the salient features of their social identities to categorize one another. Since racioethnicity and gender are highly salient and accessible, categorization on the basis of these factors will be

nearly automatic" (p. 949). Further, both theoretical perspectives propose that such racioethnic categorization has negative consequences for members' experiences in racioethnically diverse groups because categorization of a group member as belonging to a different racioethnicity will result in a negative bias toward that individual (see Williams & O'Reilly, 1998, for a review).

However, several streams of research suggest that individuals may not always react to racioethnic category distinctions, particularly when they have had frequent and extensive contact with members of these categories. Specifically, the literatures on individuals' cognitive processing of diversity (e.g., Austin, 1997; Elsass & Graves, 1997; Milliken & Martins, 1996), on the "contact hypothesis" (e.g., Allport, 1954; Brewer & Brown, 1998; Brewer & Kramer, 1985), and on the symbolic aspects of organizational diversity (e.g., Ely, 1994; Riordan, 2000) all suggest that frequent contact with members of various racioethnic categories may reduce individuals' attention to and reliance on racioethnic category distinctions in interacting with members of their groups. We use these perspectives to argue that the racioethnic diversity of the organizational context in which a group exists may affect the relationship between the group's racioethnic diversity and its members' experiences (Austin, 1997; Elsass & Graves, 1997; Milliken & Martins, 1996; Riordan, 2000).

#### **THE ROLE OF THE RACIOETHNIC DIVERSITY OF THE ORGANIZATIONAL CONTEXT IN THE EFFECTS OF RACIOETHNIC DIVERSITY ON GROUP MEMBERS' EXPERIENCES**

A racioethnically diverse organizational context permits group members to have extended contact with multiple members of different racioethnic categories. We suggest that this contextual attribute reduces individuals' attention to racioethnic category differences (Austin, 1997; Milliken & Martins, 1996) and makes them less likely to use racioethnic category stereotypes (Allport, 1954; Brewer & Brown, 1998; Brewer & Kramer, 1985; Elsass & Graves, 1997). Also, we suggest that diverse contexts provide symbolic cues that positively affect interactions between members of different racioethnic categories (Ely, 1994; Riordan, 2000). We develop these three lines of argument below.

*Diversity of the organizational context and attention to racioethnic differences.* Cognitive processing theory suggests that the extent of racioethnic diversity in a group's organizational context is likely to affect the attention

that group members pay to racioethnic category differences within the group (Austin, 1997). Researchers have suggested that group members will be more likely to pay attention to differences in racioethnic categories in a racioethnically homogeneous context than in a racioethnically diverse one (Austin, 1997; Baugh & Graen, 1997; Milliken & Martins, 1996; Wiersema & Bird, 1993). As Baugh and Graen (1997) observed,

Diversity in the demographic composition of teams will be especially problematic when that diversity is introduced by individuals with demographic characteristics that are numerically rare in the organization as a whole. The relatively homogeneous background will serve to highlight those demographic differences that do exist (Kanter, 1977; Wharton, 1992; Wiersema & Bird, 1993). (pp. 369-370)

In their study of Japanese organizations, Wiersema and Bird (1993) found that top management team diversity in age, team tenure, and prestige of university attended explained greater variance in team turnover than had been explained in earlier studies examining the effects of such diversity on top management team turnover in U.S. organizations. They suggested that this finding may be due to the fact that Japanese organizations are more homogeneous than U.S. organizations, and therefore “variation is actually *noticed and acted upon* more in Japanese than in U.S. organizations” (Wiersema & Bird, 1993, p. 1003). Thus, we expect that racioethnic diversity will have stronger negative effects on group members’ experiences in an organizational context that is relatively homogeneous in racioethnicity than in one that is relatively diverse.

*Diversity of the organizational context and intergroup contact.* The “contact hypothesis” proposes that “extended contact between members of different social groups or categories necessitates a shift from representations at the level of the group as a whole to the level of interpersonal perceptions and behaviors” (Brewer & Kramer, 1985, p. 232). The contact hypothesis suggests that depersonalization, derogation, and stereotyped expectations due to social categorization can be diminished when individuals have greater contact with out-group members because contact exposes them to information that contradicts stereotypes and enhances personalization (Allport, 1954; Brewer & Brown, 1998). However, category stereotypes are not easily discarded; so if people come in contact with a few individuals who are inconsistent with their stereotypes, those individuals may be viewed as “exceptions” or people may create a subtype within the social category but maintain the overall category stereotype (Brewer & Brown, 1998; Weber & Crocker, 1983). Thus, to effectively break down group stereotypes, people must have

frequent exposure to different types of disconfirming information across a substantial number of out-group members (Allport, 1954; Brewer & Brown, 1998; Weber & Crocker, 1983)—the type of contact that emerges in heterogeneous contexts. Thus, in a racioethnically diverse organizational context, which provides group members with contact with numerous individuals from various racioethnic categories, group members will be more likely to use individuating information rather than racioethnic category stereotypes in their assessments of individuals who are racioethnically different from themselves (Brewer & Kramer, 1985; Fiske & Taylor, 1991). Therefore, the negative effects of racioethnic differences within a group will be reduced in an organizational context that is racioethnically diverse because the “shift from the abstract and unfamiliar to the interpersonal and familiar will engender more positive intergroup attitudes and social acceptance” (Brewer & Kramer, 1985, p. 232) among members of different racioethnic categories.

On the other hand, in an organizational context that is relatively homogeneous in terms of racioethnicity, group members will have had infrequent contact with individuals who are racioethnically different from themselves. In the absence of individuating information, this lack of extended contact will make group members more likely to use racioethnic stereotypes as a basis for their reactions to individuals who are racioethnically different from themselves (Brewer & Brown, 1998; Turner, 1987). Thus, we expect that racioethnic diversity will have stronger negative effects on group members’ experiences when the organizational context of the group is relatively homogeneous in racioethnicity.

*Diversity of the organizational context and symbolic cues.* The diversity of the organizational context may also provide symbolic cues to people that affect how they interact with group members who are demographically different from themselves (Ely, 1994; Milliken & Martins, 1996; Riordan, 2000; Riordan & Holliday Wayne, 1998). The core argument supporting this proposition was developed by Ely (1994), who found that women in law firms had more cooperative relations with other women when the proportion of female law partners in the firm was greater. Ely (1994) proposed that when law firms have a higher percentage of female partners, it serves as a signal to women lower in the hierarchy that women are valued in the firm. Extending this argument, Riordan and Holliday Wayne (1998) suggest that in addition to the percentage of women in positions of authority, the demographic composition of the overall organization signals to women whether they are valued in the organization, thus influencing the effects that work-group gender differences have on outcomes.



Applying these arguments to the current context, it is possible that the extent of racioethnic diversity of the organizational context can convey a symbolic message to group members about the degree to which the organization values people belonging to various racioethnic categories and about the relative status and power of various racioethnic categories in the organization (Riordan, 2000). In racioethnically homogeneous organizational contexts, interaction difficulties may be exacerbated because group members are responding to their sense that the larger organizational context does not value people of all racioethnic groups equally, triggering stereotyped expectations based on racioethnic category membership. However, racioethnically diverse organizational contexts signal that the organization values various racioethnic categories equally, thus reducing derogation based on categorization of group members into racioethnic categories. Therefore, we expect that the negative effects of racioethnic diversity on group members' experiences will be reduced in organizational contexts that are relatively diverse in racioethnicity.

Based on the above three lines of argument, we propose

*Hypothesis 1a:* In a racioethnically homogeneous organizational context, a group's racioethnic diversity will be positively related to group members' experiences of conflict, uncertainty, difficulty understanding each other, and stress and negatively related to group members' trust in each other, satisfaction with the group, and favorable evaluation of the group.

*Hypothesis 1b:* In a racioethnically diverse organizational context, a group's racioethnic diversity will not be significantly related to group members' experiences of conflict, uncertainty, difficulty understanding each other, stress, trust in each other, satisfaction with the group, and favorable evaluation of the group.

#### **LOOKING BEYOND RACIOETHNIC DIVERSITY: AN EXAMINATION OF DEEPER LEVEL DIVERSITY**

As discussed above, social categorization theory suggests that people use social categories as a heuristic device to help simplify and make sense of the relatively complex situations they confront (Brewer & Kramer, 1985; Fiske & Taylor, 1991; Oakes, 1987). The social categorizations that people utilize are determined by features of the situation—categories that provide the most appropriate information and most effectively promote sense making are more likely to be salient (Brewer & Brown, 1998; Fiske & Taylor, 1991; Rosch, 1978). In a context that is relatively homogeneous racioethnically, racioethnic categorizations simplify information processing and provide an efficient framework in which to understand the group experience. They are also likely to be psychologically accessible because they reflect observable

characteristics (Elsass & Graves, 1997). In sum, racioethnic categories are likely to be used in more homogeneous contexts because they are accessible and efficient and simplify information processing (Brewer & Brown, 1998; Oakes, 1987).

In a racioethnically diverse context, however, many racioethnic categories may be represented in the immediate surroundings, making racioethnic categorizations highly complex. Therefore, racioethnic categorizations are less likely to be viewed as an efficient and effective heuristic to simplify individuals' information-processing efforts. Instead, individuals may rely upon social categories that are more relevant to the task or other features of the situation, which can provide more useful and context-relevant information. Previous research suggests that values, particularly values associated with individuals' perceptions of their group obligations (e.g., collectivism), are very likely to be salient among members of small task-related groups (Chatman, Polzer, Barsade, & Neale, 1998; Cox, Lobel, & McLeod, 1991; Eby & Dobbins, 1997). Thus, in a racioethnically diverse context, racioethnic differences are less likely to serve as the basis for social categorization of other group members. Rather, differences in values and attitudes may instead be viewed as useful and appropriate bases for determining similarities and differences and are therefore likely to be more salient.

Support for this argument comes from recent research that has found that when surface-level differences such as differences in gender or racioethnicity are not significant to group members, they tend to focus on differences in deep-level characteristics such as values, attitudes, beliefs, and behavioral styles (Glaman, Jones, & Rozelle, 1996; Harrison et al., 1998). This nascent research stream comparing the effects of surface-level diversity to the effects of deep-level diversity has primarily focused on how group members' attention shifts from surface-level differences to deep-level differences over time. These studies found that group members become desensitized to racioethnic category differences within their group as they come to know racioethnically different group members over time, at which point their judgments of and reactions to others focus on deeper level differences within their group (Glaman et al., 1996; Harrison et al., 1998). By the same token, the greater knowledge of individuals of various racioethnic backgrounds that is developed when people operate in a racioethnically diverse organizational context may lead group members to focus on differences in deep-level characteristics such as values and attitudes rather than on racioethnic category differences when they come together to work on a group task.

In this study, we used diversity in collectivism as an indicator of deep-level diversity in a group. Prior research suggests that the impact of a particular group diversity characteristic depends in part on the job-relatedness of the

characteristic (Pelled, 1996; Pelled, Ledford, & Mohrman, 1999). Therefore, in the context of the current study, which is focused on small self-directed task groups, our focus was on differences in group members' attitudes toward group work. A central value associated with an individual's behavior in a small task group is collectivism (Chatman et al., 1998; Eby & Dobbins, 1997; Glaman et al., 1996). More collectivistic individuals tend to define themselves as part of a group, give group goals priority over personal goals, and emphasize relationships with group members even at personal cost, whereas less collectivistic individuals tend to define themselves as autonomous from groups, give their own self-interest priority over group goals, and focus only on those relationships that are beneficial to them (Singelis, Triandis, Bhawuk, & Gelfand, 1995; Triandis, 1995b). Collectivism appears to be critical to small group functioning. Specifically, prior research found that members of groups that had higher average levels of collectivism tended to engage in more cooperative interactions than members of groups whose average level of collectivism was lower (Cox et al., 1991; Eby & Dobbins, 1997) and that social loafing was less likely among group members who were more collectivistic (Earley, 1989).

We propose that in an organizational context that is relatively heterogeneous in racioethnicity, differences in collectivism will have negative effects on group members' experiences because group members are more likely to focus on deep-level differences in values and attitudes in categorizing other group members (Elsass & Graves, 1997; Glaman et al., 1996; Harrison et al., 1998). On the other hand, in an organizational context that is relatively homogeneous in racioethnicity, group members are likely to base their assessments of other group members on automatic processing of racioethnic category stereotypes and are unlikely to look beyond surface-level racioethnic category differences to deep-level differences in values and attitudes (Brewer & Kramer, 1985; Chatman et al., 1998; Elsass & Graves, 1997; Fiske & Taylor, 1991). Thus, in such a context, we expect that diversity in collectivism will not affect group members' experiences because it will be less salient.

*Hypothesis 2a:* In a racioethnically diverse organizational context, a group's diversity in collectivism will be positively related to group members' experiences of conflict, uncertainty, difficulty understanding each other, and stress and negatively related to group members' trust in each other, satisfaction with the group, and favorable evaluation of the group.

*Hypothesis 2b:* In a racioethnically homogeneous organizational context, a group's diversity in collectivism will not be significantly related to group members' experiences of conflict, uncertainty, difficulty understanding each

other, stress, trust in each other, satisfaction with the group, and favorable evaluation of the group.

## METHOD

### THE ORGANIZATIONAL CONTEXTS

To test our hypotheses, we compared two samples, one from an organizational context that is relatively heterogeneous in racioethnicity (Sample 1) and one from an organizational context that is more homogeneous in racioethnicity (Sample 2). Both samples consisted of undergraduate students in similar introductory management courses, taught by similarly trained faculty members, at the business schools of two universities in the northeastern United States. In both samples, the students were randomly assigned to groups of 4 to 7 students for the purpose of completing three group assignments over the course of a 14-week semester. The assignments the teams worked on were of similar design and duration in both contexts. The first assignment required students to produce a short written report that applied conceptual material covered in class to a real organizational situation covered in the business press (10% of the final grade). The second assignment required students to produce a written report that applied concepts covered in class to define, analyze, and propose recommendations to resolve a business situation identified either through primary research or published sources (20% of the final grade). The third assignment consisted of designing and executing an in-class group presentation of the second group project (10% of the final grade). The set of assignments was designed to develop the analytical, group-work, and communication skills commonly required in project teams working on management consulting projects.

*Sample 1.* Sample 1 consisted of 727 undergraduate business school students in an introductory management course at a large, racioethnically heterogeneous northeastern university. The school has approximately 2,000 students with an average class size of approximately 35 students, is private, and accepts approximately 25% of applicants to its undergraduate program. The school states that it actively seeks to enhance the diversity of the student body, and the university to which it belongs is rated by *U.S. News & World Report* as being diverse, which is defined as having a minority population greater than the national average for universities (<http://www.usnews.com>, July 10, 2001). The student body in the business school of this university is composed of 33% White/Caucasian Americans; 49% domestic minorities,

including Asian Americans, African Americans, and Hispanic Americans; and 11.4% international students, including all students who hold foreign passports; and 6.6% on whom data were not available. The student body in the business school is 45% female.

A questionnaire survey was administered to the students in two parts on the same day, 4 to 5 weeks after students were assigned to groups and had completed one group project. A total of 504 students from 129 groups returned completed surveys. After eliminating all groups with only one or two respondents, the final sample size was 472 students from 110 groups, an overall response rate of 65%.

The final sample was diverse with respect to race/ethnicity, with 38.7% of the sample classifying themselves as White/Caucasian, 34.3% classifying themselves as Chinese, Taiwanese, Japanese, Korean, or from Hong Kong, 10.5% classifying themselves as Black, Hispanic, or Caribbean Islander, and approximately 7.5% of each of Asian Indian and "Other Asian/Pacific Islander." The remaining 2% of the sample classified themselves as "Other." The percentages of each of the race/ethnic categories in the average class in the sample were very similar to the percentages for the school overall. The sample was 46% female.

*Sample 2.* Sample 2 consisted of 174 undergraduate business school students in an introductory management course at a large, more race/ethnically homogeneous northeastern university. The school has approximately 1,800 students with an average class size of approximately 35, is public, and accepts approximately 40% of applicants to its undergraduate program. The school states that it actively seeks to enhance the diversity of the student body; however, the university to which it belongs is rated by *U.S. News & World Report* as not being diverse (<http://www.usnews.com>, July 10, 2001). The student body of the business school of this university, from which Sample 2 was drawn, is composed of 71.2% White/Caucasian Americans; 8.3% Asian Americans; 7.9% African Americans and Hispanic Americans; 0.4% American Indians/Native Alaskans; 2.4% international students, including all students who hold foreign passports; 2.6% Other classification; and 7.1% on whom data were not available. The student body in the business school is 37% female.

A questionnaire survey, identical to the survey used in Sample 1, was administered 5 weeks after students had been assigned to groups and had completed one group project. In Sample 2, 158 students from 30 groups responded, and at least 3 members of each group responded so that no groups were eliminated. The response rate for this sample was 90.8%.

In the final sample, 81% of students classified themselves as White/Caucasian, 9.2% classified themselves as Chinese, Taiwanese, Japanese, Korean, Asian Indian, or Other Asian/Pacific Islander, 8.6% classified themselves as Black or Hispanic, and 1.2% classified themselves as Other. The percentages of each racioethnic category in the average class in the sample were very similar to the percentages for the school overall. The sample was 37% female.

Although the two samples shared similarities in terms of the region of the country, the nature of the courses in which the surveys were conducted, the qualifications of the instructors, the procedures used to construct groups, the nature of the group assignments, and gender diversity, there were some differences between the two contexts besides the level of racioethnic heterogeneity in the schools' student body. Based on information obtained from *U.S. News & World Report* (<http://www.usnews.com>, July 10, 2001), the school from which Sample 1 was drawn is somewhat more selective and prestigious (i.e., higher ranked) than the other school. Furthermore, the school from which Sample 1 was drawn is private whereas the other one is public. Although prior diversity research does not provide guidance regarding how these differences might affect the workings of diversity in groups, we cannot rule out a potential confound due to the nature of our method, an issue that we discuss in the Limitations section.

## MEASURES

Using multiple-item scales (see the appendix), students in both samples were asked about their experiences in their groups, namely, the intragroup conflict and uncertainty experienced by group members, the difficulty group members experienced in understanding each other, the level of trust group members had in each other, the level of group members' satisfaction with their group, members' evaluation of their group, and the stress experienced by group members. A factor analysis verified that these variables are, in fact, distinct constructs. All constructs were assessed at the individual level and then aggregated by group as a mean group score.

To determine whether aggregation of individual responses to the group level was appropriate, we performed tests of both interrater reliability (using  $r_{wg}$ ) and intraclass correlation (using ANOVA). Interrater reliability (IRR) is defined as the "proportion of systematic variance in a set of judgments in relation to the total variance in the judgments" (James, Demaree, & Wolf, 1984, p. 86) and is used to assess the convergence of responses by a group of judges. In this study, IRR was assessed using an  $r_{wg}$  score, with a value of .70 representing strong convergence within groups (James et al., 1984). The one-

way ANOVA tests whether variation between groups is greater than variation within groups, with a significant  $F$  test and an  $\eta^2$  greater than .20 supporting aggregation (Pelled, Eisenhardt, et al., 1999). Together,  $r_{wg}$  and the ANOVA provide a strong case for aggregation based on within-group agreement.

### MEMBERS' EXPERIENCES

*Conflict.* We measured both task and emotional conflict using items developed by Jehn (1995). Task conflict was measured using four items that assess group disagreements about what work to do and how work should be done, whereas emotional conflict was measured with four items that assess affect-based disagreement. Although Jehn (1995) and Pelled and her colleagues (Pelled, Eisenhardt, et al., 1999) found that emotional and task conflict were distinct constructs, Williams and O'Reilly (1998) noted that the two have been found to load onto a single factor in other diversity studies (e.g., O'Reilly et al., 1998). Our factor analysis of the two conflict scales also revealed only one factor and thus we collapsed the two conflict scales into one measure of the overall level of conflict in the group ( $\alpha = .95$  for Sample 1 and .90 for Sample 2). Aggregation to the group level was supported by a median  $r_{wg}$  of .97 and an  $\eta^2$  of .44 ( $F = 2.79, p < .001$ ).

*Uncertainty.* Prior research suggests that individuals in diverse task groups may experience uncertainty about how to interact with others (Cox, 1993). We developed seven items to measure the degree to which group members experienced uncertainty about their roles in their group ( $\alpha = .89$  for Sample 1 and .90 for Sample 2). In a pilot test of the survey using 75 responses from students working in similar groups in a similar class, factor analysis and reliability measures provided evidence of the internal validity and reliability of the measurement scale. Aggregation to the group level was supported by a median  $r_{wg}$  of .96 and an  $\eta^2$  of .37 ( $F = 2.09, p < .001$ ).

*Difficulty understanding others.* Racial, ethnic, or cultural differences may result in individuals' experiencing difficulty in understanding their group members (Adler, 1991; Cox, 1993). We developed a three-item measure of difficulty in understanding ( $\alpha = .82$  for both samples) based on language barriers, differences in values or beliefs, and/or differences of opinion (Adler, 1991; Cox, 1993). The measurement scale was validated using the pilot test of the survey discussed above. Aggregation to the group level was supported by a median  $r_{wg}$  of .94 and an  $\eta^2$  of .31 ( $F = 1.61, p < .001$ ).



*Trust.* We selected the three items with the highest factor loadings from McAllister's (1995) six-item measure of cognition-based trust ( $\alpha = .87$  for Sample 1 and .81 for Sample 2) as our measure of the degree to which group members trusted one another. The measure assesses trust in one's group members based on perceived competence, professionalism, and dedication. We chose this dimension of trust because it is particularly germane in the context of interdependent group tasks. Aggregation to the group level was supported by a median  $r_{wg}$  of .96 and an  $\eta^2$  of .33 ( $F = 1.75, p < .001$ ).

*Satisfaction.* To measure satisfaction within groups, we used a satisfaction measure ( $\alpha = .93$  for both samples) developed by Quinn and Staines (1979). Aggregation to the group level was supported by a median  $r_{wg}$  of .98 and an  $\eta^2$  of .33 ( $F = 1.71, p < .001$ ).

*Stress.* We used eight items adapted from the Tension Index (Lyons, 1971) to measure stress ( $\alpha = .89$  for Sample 1 and .87 for Sample 2). Aggregation to the group level was supported by a median  $r_{wg}$  of .93 and an  $\eta^2$  of .38 ( $F = 2.17, p < .001$ ).

*Members' evaluation of the group.* We expected that diversity in the group could influence individuals' overall reactions to their group, including the degree to which members' evaluation of their group was positive. To assess the degree to which group members evaluated their group positively, we used a measure of collective esteem based on an adaptation of the Rosenberg (1965) scale to the collective level ( $\alpha = .89$  for Sample 1 and .86 for Sample 2). The scale was validated using the pilot test of the survey discussed above. Aggregation to the group level was supported by a median  $r_{wg}$  of .97 and an  $\eta^2$  of .46 ( $F = 3.05, p < .001$ ).

## GROUP DIVERSITY

*Racioethnic diversity.* Information on racioethnicity was obtained from self-reported information in university admissions records in Sample 1 and was self-reported on the survey in Sample 2. Racioethnicity was categorized into 14 categories as used by the university admissions office in the more heterogeneous setting, such as White/Anglo/Caucasian, Puerto Rican, Other Hispanic, Black (Hispanic and non-Hispanic), Chinese, Korean, Japanese, and Asian Indian. Consistent with prior research (e.g., Harrison et al., 1998; Jackson et al., 1991), racioethnic diversity was calculated using Blau's (1977) Index of Heterogeneity:  $(1 - \sum P_i^2)$ , where  $P_i$  is the proportion of the



group in the  $i$ th racioethnic category. Larger values of the index indicate greater diversity. This measure of diversity takes into account group size and the number of categories represented in the group. For example, a group with 1 Black person and 4 White persons would have a Blau Index of 0.32, whereas a group with 1 Black person and 9 White persons would have a Blau Index of 0.18. Also, a group consisting of 2 Black persons and 3 White persons would have a Blau Index of 0.48, whereas a group with 1 Black person, 1 Hispanic person, and 3 White persons would have a Blau Index of 0.56.

*Diversity in collectivism.* Individual levels of collectivism ( $\alpha = .73$  for Sample 1 and .76 for Sample 2) were assessed using six items adapted from Triandis's (1995b) horizontal collectivism scale (see appendix). We used horizontal rather than vertical collectivism because its emphasis on equality among group members makes horizontal collectivism a more relevant value in the context of self-managed task groups (Singelis et al., 1995; Triandis, 1995b). Individuals who rate high on horizontal collectivism "see themselves as being similar to others (e.g., one person, one vote) and emphasize common goals with others, interdependence, and sociability" (Triandis & Gelfand, 1998, p. 119). Based on prior computations of diversity on ordinal variables (e.g., Harrison et al., 1998; Jackson et al., 1991; Pelled, Eisenhardt, et al., 1999), group scores for diversity in collectivism were calculated as the coefficient of variation (the standard deviation divided by the mean) for the group.

## CONTROL VARIABLES

*Group size.* Prior research suggests that group size affects the functioning of groups (see Bettenhausen, 1991, for a review) and that larger groups may be more likely to be diverse (e.g., Jackson et al., 1991). Therefore, we controlled for group size in our analyses.

*Gender diversity.* Prior research found that gender diversity significantly affects group members' experiences (see Williams & O'Reilly, 1998, for a review). Therefore, we included gender diversity as a control variable. Gender diversity was computed based on self-reported information, using the Blau Index:  $(1 - \sum P_i^2)$ , where  $P_i$  is the proportion of the group in the  $i$ th gender category (Harrison et al., 1998; Jackson et al., 1991).

*Instructor.* To examine whether members' experiences in their groups were affected by the instructors for their classes, we conducted ANOVAs and discovered significant instructor effects for the variables measuring trust

and satisfaction in Sample 1 and for the variable measuring stress in Sample 2. Thus, we added instructor as a control variable to the regression equations for trust, satisfaction, and stress in both samples.

*Class size.* The two samples differed in average class sizes, with an average of 62 students per class in Sample 1 and 44 students per class in Sample 2. However, we found that class size was significantly correlated only with the variable measuring stress in Sample 2. Thus, we added class size as a control variable in the regression analysis for stress in both samples.

## RESULTS

Table 1 presents descriptive statistics and correlations for all variables in the study.

Tables 2A and 2B show the results of subgroup hierarchical regression analyses for each of the variables measuring members' experiences. The control variables were entered in the first step, the variable measuring racioethnic diversity was added in the second step, and the variable measuring diversity in collectivism was added in the third step. For each dependent variable, betas for the final equation are presented along with the change in  $R^2$  for each step.

The results of the regression analysis support Hypotheses 1a and 1b. In the relatively homogeneous organizational context, racioethnic diversity was significantly positively related to conflict ( $p < .05$ ), difficulty understanding others ( $p < .01$ ) and stress ( $p < .01$ ) (Table 2B, Step 2). In the relatively diverse organizational context, racioethnic diversity was not significant in any of the regression equations, except for marginal effects ( $p < .10$ ) in the case of the equations for uncertainty and difficulty understanding others (Table 2A, Step 2). In addition to the regression analysis, we used Welch's  $t$  test (Kirk, 1995) to determine if the beta coefficients for racioethnic diversity obtained in Step 2 of the regression equation were significantly different across the two samples (see Table 3A). Welch's  $t$  test is used to test for differences in effect sizes across independent samples by dividing the difference in betas by the square root of the sum of their squared standard errors—namely,  $(\beta_1 - \beta_2) / \sqrt{SE_1^2 + SE_2^2}$ —with the degrees of freedom determined by Satterthwaite's formula:  $df = (SE_1^2 + SE_2^2)^2 / [(SE_1^4/df_1) + (SE_2^4/df_2)]$ , where  $df_1$  and  $df_2$  are the degrees of freedom associated with the standard errors  $SE_1$  and  $SE_2$ , respectively (Kirk, 1995).

(text continued on p. 95)

**TABLE 1**  
**Correlations and Descriptives**

	<i>Sample 1</i>		<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>	<i>12</i>
<i>Variable</i>	<i>M</i>	<i>D</i>												
Sample 2														
<i>M</i>			5.27	.39	44.0	.27	.14	2.39	2.78	2.70	4.82	5.92	2.87	5.41
<i>SD</i>			.98	.15	3.57	.24	.05	.59	.55	.62	.65	.45	.55	.63
1. Group size	4.29	1.10		.12	−.30	.21	.31	−.02	−.41**	−.11	−.18	−.03	−.10	.03
2. Gender diversity	.36	.15	.05		.12	.11	.10	−.20	−.19	−.15	.31	.30	−.26	.33
3. Class size	61.73	6.41	.15	.25		−.07	−.17	.09	.21	.07	.34	.03	−.41**	.33
4. Racioethnic diversity	.53	.22	.00	.16	−.01		.05	.38**	.06	.42**	−.25	−.20	.31	−.06
5. Diversity in collectivism	.14	.07	.03	.11	.07	.03		.12	.02	−.02	−.33	.14	.12	−.25
6. Conflict	2.71	.89	.12	.10	−.07	−.06	.36****		.51***	.74****	−.35	−.55***	.44***	−.18
7. Uncertainty	2.63	.75	.06	.01	−.08	−.15	.30***	.78****		.64****	−.21	−.50***	.53***	−.17
8. Difficulty understanding	2.56	.80	.00	.06	−.14	−.15	.35****	.69****	.75****		−.38**	−.63****	.53***	−.09
9. Trust	5.19	.78	−.00	−.04	−.07	−.02	−.30****	−.59****	−.62****	−.50****		.37**	−.44**	.75****
10. Satisfaction	5.82	.73	−.04	.02	−.04	.10	−.36****	−.70****	−.76****	−.59****	.57****		−.32	.24
11. Stress	3.53	.79	.03	−.03	−.04	−.10	.13	.54****	.59****	.47****	−.60****	−.48****		−.34
12. Members' evaluation of the group	5.60	.74	−.02	−.04	.02	.04	−.38****	−.69****	−.71****	−.58****	.76****	.67****	−.64****	

NOTE: Sample 1 ( $n = 110$ ) is displayed below the diagonal, Sample 2 ( $n = 30$ ) above the diagonal.

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

**TABLE 2A**  
**Relationship Between Group Diversity and Members'**  
**Experiences in the Relatively Heterogeneous Context (Sample 1)**

	<i>Conflict</i>		<i>Uncertainty</i>		<i>Difficulty Understanding</i>		<i>Trust</i>		<i>Satisfaction</i>		<i>Stress</i>		<i>Members' Evaluation of the Group</i>	
	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$
Step 1														
Group size	.11		.05		-.01		.07		.01		-.00		-.01	
Gender diversity	.07		-.01		.05		-.02		.04		-.02		-.00	
Instructor Class size		.02		.00		.00	.25***	.09**	.18*	.06*	-.18*	-.09	.04	.00
Step 2														
Racioethnic diversity	-.07	.01	-.15*	.03	-.16*	.03	-.01	.00	.10	.01	-.11	.01	.05	.00
Step 3														
Diversity in collectivism	.35***	.12***	.30***	.09***	.35***	.12***	-.25***	.06***	-.33***	.11***	.10	.01	-.38***	.15***
$R^2$	.15		.12		.15		.15		.18		.06		.15	
$F$	4.60***		3.43***		4.63***		3.53***		4.40***		1.08		4.47***	

NOTE: Betas reported are for the final equation. All betas are standardized coefficients.

\* $p \leq .10$ . \*\* $p \leq .05$ . \*\*\* $p \leq .01$ . \*\*\*\* $p \leq .001$ .

**TABLE 2B**  
**Relationship Between Group Diversity and Members' Experiences**  
**in the Relatively Homogeneous Context (Sample 2)**

	<i>Conflict</i>		<i>Uncertainty</i>		<i>Difficulty Understanding</i>		<i>Trust</i>		<i>Satisfaction</i>		<i>Stress</i>		<i>Members' Evaluation of the Group</i>	
	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$
Step 1														
Group size	-.14		-.48**		-.20		-.02		-.07		-.33*		.10	
Gender diversity	-.24		-.17		-.18		.33*		.34		-.17		.36*	
Instructor Class size		.04		.19*		.03	-.17	.18	.05	.10	.24	.24		.11
Step 2														
Racioethnic diversity	.43**	.17**	.17	.03	.48***	.22***	-.25	.05	-.23	.05	.36**	.12**	-.11	.01
Step 3														
Diversity in collectivism	.17	.02	.18	.02	.04	.00	-.32*	.10*	.13	.01	.17	.03	-.32*	.09*
$R^2$		.23		.24		.25		.33		.16		.38		.21
$F$		1.91		2.01		2.07		2.32*		.94		2.41*		1.67

NOTE: Betas reported are for the final equation. All betas are standardized coefficients.

\* $p \leq .10$ . \*\* $p \leq .05$ . \*\*\* $p \leq .01$ .

TABLE 3A  
Comparison of Betas for Effects of Racioethnic  
Diversity on Group Members' Experiences

<i>Dependent Variable</i>	<i>Sample 1 Relatively Heterogeneous</i>	<i>Sample 2 Relatively Homogeneous</i>	<i>t</i>
Conflict	-.07	.43**	2.26**
Uncertainty	-.15*	.17	1.70**
Difficulty understanding	-.16*	.48***	3.17****
Trust	-.01	-.25	1.06
Satisfaction	.10	-.23	1.73**
Stress	-.11	.36**	2.32**
Members' evaluation of the group	.05	-.11	.71

\* $p < .10$ . \*\* $p < .05$ . \*\*\* $p < .01$ . \*\*\*\* $p < .001$ .

Results reveal that there were significant differences across the two contexts in the effects of racioethnic diversity on conflict ( $p < .05$ ), uncertainty ( $p < .05$ ), difficulty understanding others ( $p < .001$ ), satisfaction ( $p < .05$ ) and stress ( $p < .05$ ), with racioethnic diversity having stronger negative effects on group members' experiences in the relatively homogeneous organizational context. There were no significant differences between the two contexts, however, in the effects of racioethnic diversity on trust and on members' evaluations of the group.

The results of the regression analysis also support Hypotheses 2a and 2b. In the relatively diverse organizational context, diversity in collectivism was significantly positively related to conflict ( $p < .001$ ), uncertainty ( $p < .001$ ), and difficulty understanding others ( $p < .001$ ) and significantly negatively related to group members' trust in each other ( $p < .01$ ), satisfaction with the group ( $p < .001$ ), and favorable evaluation of the group ( $p < .001$ ) (Table 2A, Step 3). In the relatively homogeneous organizational context, diversity in collectivism was not significant in any of the regression equations, except for marginal effects ( $p < .10$ ) in the case of the equations for trust and evaluation of the group (Table 2B, Step 3).

Welch's  $t$  tests revealed a significant difference across the two contexts in the effect of diversity in collectivism on satisfaction ( $p < .05$ ) and a marginally significant difference in the effect of diversity in collectivism on difficulty understanding others ( $p < .10$ ), with diversity in collectivism having stronger negative effects on group members' experiences in the relatively diverse organizational context (see Table 3B). Although the effects of diversity in collectivism on group members' experiences were statistically

**TABLE 3B**  
**Comparison of Betas for Effects of Diversity in Collectivism**  
**on Group Members' Experiences**

<i>Dependent Variable</i>	<i>Sample 1 Relatively Heterogeneous</i>	<i>Sample 2 Relatively Homogeneous</i>	<i>t</i>
Conflict	.35****	.17	.97
Uncertainty	.30****	.18	.55
Difficulty understanding	.35****	.04	1.38*
Trust	-.25***	-.32*	.59
Satisfaction	-.33****	.13	2.26**
Stress	.10	.17	.37
Members' evaluation of the group	-.38****	-.32*	.02

\* $p < .10$ . \*\* $p < .05$ . \*\*\* $p < .01$ . \*\*\*\* $p < .001$ .

significant in the racioethnically diverse organizational context and not in the racioethnically homogeneous one, there were fewer statistically significant differences in effect sizes across the two contexts than there were in the case of the effects of racioethnic diversity. This is perhaps due to the greater salience of racioethnic diversity and the fact that the dimension of diversity in the organizational context that this study focused on was racioethnic diversity.

Overall, our results support the arguments put forth in this study. In the racioethnically diverse organizational context, group members' experiences were not significantly affected by racioethnic diversity but were significantly affected by diversity in collectivism. In contrast, in the racioethnically homogeneous context, group members' experiences were significantly affected by racioethnic diversity but were not significantly affected by diversity in collectivism.

## DISCUSSION AND CONCLUSIONS

In this study, we examined the effects of racioethnic diversity on group members' experiences in two organizational contexts, one that was more racioethnically diverse than the other. We found that group members reacted to racioethnic diversity in their groups differently in the two contexts. In particular, racioethnic diversity had stronger negative effects on group members' experiences in the organizational context that was relatively homogeneous in

racioethnicity than in the one that was relatively heterogeneous. We also examined the effects of group diversity in the deeper level characteristic of collectivistic orientation in the two contexts. We found that diversity in collectivism had negative effects on group members' experiences in the more racially ethnically diverse organizational context but not in the context that was more homogeneous in racioethnicity.

Our results lend empirical support to the idea that individuals' reactions to racioethnic category differences within their groups may vary across situations and across settings (Baugh & Graen, 1997; Wiersema & Bird, 1993; Williams & O'Reilly, 1998). Our findings suggest that a group's racioethnic diversity may be of less significance in affecting members' experiences when such differences are routinely encountered in the organizational context. This finding is consistent with the idea proposed by Williams and O'Reilly (1998, pp. 90-91) and others that "the context itself is [likely to be] a primary determinant of what differences are salient." Our findings are also consistent with the general propositions of the "contact hypothesis" (Allport, 1954; Brewer & Kramer, 1985), the literature on the symbolic effects of diversity (Ely, 1994; Riordan & Holliday Wayne, 1998), and the literature suggesting that social category memberships may be more salient to people when those categories are relatively rare (Austin, 1997; Baugh & Graen, 1997; Elsass & Graves, 1997; Kanter, 1977; Konrad & Gutek, 1987).

Furthermore, we found that a group's diversity in collectivism negatively affected group members' experiences in the organizational context that was more racially ethnically diverse but did not have the same impact in the relatively homogeneous organizational context. This finding suggests that group members in racially ethnically heterogeneous settings may look beyond surface-level racioethnic category differences and instead may focus on deeper level differences in values and attitudes when assessing similarities and differences in their group. In this sense, the heterogeneity of the context has effects that appear to parallel the effects of time on the relationship between group diversity and group functioning. Prior research, for example, has found that with greater time spent working in the group, group members become desensitized to their racioethnic diversity and focus their attention on their diversity in values and attitudes (Glaman et al., 1996; Harrison et al., 1998). Our findings suggest that extended contact with racially ethnically different others within the organizational context might similarly desensitize group members to racioethnic diversity within their group, instead focusing their attention on their group's diversity in values and attitudes and especially job-related values and attitudes.



### RESEARCH IMPLICATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

This study responds to recent calls in the literature for an examination of the role of organizational context in moderating the relationship between diversity and group functioning (Milliken & Martins, 1996; Riordan, 2000; Tsui et al., 1995; Williams & O'Reilly, 1998). Our findings suggest that in formulating theoretical perspectives on the effects of racioethnic or cultural differences on group functioning, it is important to be cognizant of the role of context in influencing how such differences might be perceived as well as how they are reacted to by group members. Our findings also suggest that future research on the effects of diversity on group functioning should report the characteristics of the organizational context in which groups are situated. Such information is likely to be very useful to researchers and practitioners in conceptualizing, identifying, and understanding patterns of results across studies (Riordan, 2000).

In this research, we focused on the effects of diversity at the organizational level on the relationship between a group's diversity and its members' experiences. Future research could extrapolate our findings to the broader (e.g., societal or cultural) context and examine whether diversity in society affects the relationship between group diversity and outcomes (Lawrence, 1997; Triandis, 1995a; Wiersema & Bird, 1993). Such an examination is timely as several countries as well as states within the United States (e.g., California) move toward becoming truly pluralistic, with no racioethnic group in the numerical majority.

Our findings suggest that the context within which a group interaction unfolds may affect how group members think about their differences (Austin, 1997; Milliken & Martins, 1996). We have suggested several cognitive processes (i.e., attention and interpretation) that may mediate the effects of diversity on group functioning in the two contexts we studied. A useful area for future research would be to attempt to specify and measure variation produced by the nature of a group's context in the cognitive processes that come into play when individuals deal with group members who are different from themselves.

Finally, there is a need to examine the cross-context effects on members' experiences of other variables capturing diversity in surface-level as well as deep-level characteristics. In this study, we focused on the surface-level trait of racioethnicity. Future research should also examine how organizational diversity in other surface-level traits such as gender and age influences the effects of group diversity in those variables on a group's functioning. For

instance, it is possible that the context effects we found for racioethnic diversity might not be replicated for gender and age diversity. Whereas individuals tend to be largely clustered around racioethnically similar others, most people have had extended contact with individuals of the opposite sex and with individuals of various ages throughout their lives. Regarding deep-level diversity, we chose to focus on the trait of collectivism because it was particularly relevant to our research context—namely, small task groups. Other deep-level dimensions that could be examined in future research include differences in personality characteristics, work ethics, and management styles.

### IMPLICATIONS FOR PRACTICE

From a practical standpoint, our research has several implications for the design of diversity training programs and interventions. At a minimum, such programs should be designed to take the degree of diversity in the context into account—a factor that is currently ignored. In a more culturally or demographically heterogeneous context, the training may be most useful if it is geared toward helping groups cope with diversity in values, in attitudes, in socioeconomic backgrounds, in functional backgrounds, and in other such nonobservable dimensions. Another possible implication for diversity training is that such programs may be best designed in two separate waves—after training that focuses on demographic diversity such as racioethnic and gender diversity, programs may be designed to focus on diversity in values and attitudes.

Furthermore, within an organization, the diversity of the context may vary by organizational level. Thus, diversity in racioethnicity and gender may be greatest at lower levels in the organizational hierarchy and nearly nonexistent in top management. However, policies regarding diversity initiatives are usually formulated at higher levels of management. Previous research (Ragins, Townsend, & Mattis, 1998) suggested that managers may be painfully “out of touch” due to mistakenly assuming that other members of the organization have the same experiences that they do. Our results suggest that those who formulate diversity policies may experience diversity in a very different way than those at lower levels, for whom the policies are intended. Whereas top managers operating in a relatively homogeneous context may focus on interventions aimed at reducing stereotyping or coping with diversity in racioethnicity and gender, their subordinates who may operate in a context that is diverse in racioethnicity and gender may need other types of training—focused, for example, on coping with value differences.

### LIMITATIONS OF THE STUDY

A few limitations must be considered when interpreting the results of this study. First, the generalizability of our findings may be affected by our use of undergraduate students as participants. We would argue, however, that our student teams are similar in many senses to entry-level teams in many industries and in particular to teams in the financial services, consulting, and accounting industries, industries into which a large percentage of the students in these samples enter upon graduation. Furthermore, the group tasks that the students were engaged in emphasize skills (i.e., analytical, interpersonal, communication, and presentation skills) similar to those required in entry-level teams in organizations. Additionally, the group tasks made up a significant portion of the grade for the courses, aligning students' interests with performance of the group projects. Finally, there is no *a priori* indication that the underlying psychological processes governing the effects of the diversity will operate differently in an educational as compared to a corporate context; similar arguments for the underlying processes governing the effects of diversity have been made in experimental and field settings (for reviews, see Riordan, 2000; Williams & O'Reilly, 1998).

Second, although we attempted to make our two contexts as comparable as possible on all variables except for their racioethnic heterogeneity, we could not rule out some confounding effects such as effects of the selectivity of the schools and the fact that one of the schools was private and the other public. A replication of our results in a larger number of organizations is needed before strong conclusions can be drawn. A third potential limitation is the use of incomplete groups in computing aggregated group-level measures in this study. We did not eliminate incomplete groups because doing so would have very significantly reduced the number of observations available. Although it is very difficult to obtain responses from each and every group member in a setting in which completion of the survey instrument is voluntary, future research should attempt to obtain responses from complete groups to the extent possible.

Fourth, because the number of observations in Sample 2 is small, the nonsignificant effects of diversity in collectivism in the regression equations used to test Hypothesis 2b could be a consequence of low statistical power. Future studies examining the effects of diversity of organizational context on the relationship between group diversity and group functioning might ideally obtain large and relatively equal sample sizes from each context. Last, we might speculate that as yet there are very few corporate settings that are as diverse in demographic makeup as our heterogeneous context. Thus, the modal

effect of racioethnic differences may be closer to the effects we observed in the more homogeneous organizational context of Sample 2.

### SOME CONCLUDING THOUGHTS

In sum, our results suggest that the diversity of the organizational context influences the relationship between a group's diversity and its members' experiences (Baugh & Graen, 1997; Milliken & Martins, 1996; Riordan, 2000; Tsui et al., 1995; Williams & O'Reilly, 1998). Our findings suggest that in an organizational context that is relatively heterogeneous with respect to racioethnicity, a group's racioethnic diversity may be less likely to be associated with negative member experiences than in an organizational context that is more homogeneous. Past research suggested that groups can benefit from the differences in perspective that accompany diversity (Cox et al., 1991; Watson, Kumar, & Michaelsen, 1993) but that diverse groups are more likely than homogeneous groups to need help with working out process difficulties (Williams & O'Reilly, 1998). The results of our study suggest that an important consideration in designing programs aimed at realizing the advantages associated with diversity in the composition of work teams while minimizing the difficulties they experience is the diversity of the organizational context in which they operate.

## APPENDIX

### Measurement Scales

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Responses to all items were on a 7-point Likert-type scale indicating level of agreement with each statement (1 = *strongly disagree*; 7 = *strongly agree*).

#### COLLECTIVISM

The well-being of my fellow students is important to me.  
 If a fellow student gets a prize, I feel proud.  
 If a relative were in financial difficulty, I would help within my means.  
 It is important to me to maintain harmony within my group.  
 I like sharing little things with my neighbors.  
 It is important to consult close friends and get their ideas before making a decision.

#### CONFLICT

There is a great deal of friction in our group.  
 There are personality clashes in our group.  
 There is a lot of anger in our group.

## 102 GROUP & ORGANIZATION MANAGEMENT

There is a great deal of emotional conflict in our group.  
There are many differences of opinion regarding tasks in our group.  
People in our group frequently disagree about the work being done.  
There are frequent disagreements about the tasks we are working on in our group.  
People in our group frequently disagree about ideas regarding the group's task.

### UNCERTAINTY

I never know what will happen at group meetings.  
I am never sure about how my fellow group members will respond to the things I say.  
When our group meets, I often feel that I am holding back my true opinions or feelings.  
I feel that I have to be very careful about what I say to other group members.  
I feel that my group members ignore what I have to say.  
I feel that my group members do not respect my opinions.  
I am not sure about what this group expects from me.

### DIFFICULTY UNDERSTANDING

I have difficulty understanding some of my group members when they speak.  
I have difficulty understanding some of my fellow group members' opinions.  
Some of my fellow group members' beliefs don't make sense to me.

### TRUST

The members of my group approach their work with professionalism and dedication.  
Given their track records, I see no reason to doubt my group members' competence or preparation for our work.  
I can rely on members of my group not to make my work more difficult by their careless contributions.

### SATISFACTION

I am very satisfied with the way I am treated by my group members.  
I am very satisfied with the respect I receive from my group members.  
I am very satisfied with the friendliness of my group members.

### STRESS

I am frequently bothered by

being unclear on just what the scope and responsibilities of my role in the group is.  
feeling that I have too heavy a work load, one that I can't possibly finish during an ordinary day.  
thinking that I'll not be able to satisfy the conflicting demands on me.  
not knowing how my professors will evaluate my performance.  
the feeling that I can't always get information I need to do my work.

not knowing what the people in my group expect of me.  
 thinking that the amount of work I have to do may interfere with how well it gets  
 done.  
 feeling that I have to do things for my group that are against my better judgment.

#### MEMBERS' EVALUATION OF THE GROUP

This group is able to do things as well as most other groups.  
 We feel that this group does not have much to be proud of. (Reverse scored)  
 This group has a positive view of itself.  
 On the whole, we are satisfied with our group.  
 As a group, we lack confidence. (Reverse scored)  
 We are one of the better groups in class.  
 Everything this group does turns out well.

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