Interracial Friendship and Structural Diversity: Trends for Greek, Religious, and Ethnic Student Organizations

Julie J. Park, Young K. Kim

The Review of Higher Education, Volume 37, Number 1, Fall 2013, pp. 1-24 (Article)

Published by The Johns Hopkins University Press
DOI: 10.1353/rhe.2013.0061

For additional information about this article
http://muse.jhu.edu/journals/rhe/summary/v037/37.1.park.html
Interracial Friendship and Structural Diversity: Trends for Greek, Religious, and Ethnic Student Organizations

Julie J. Park and Young K. Kim

Student organizations play a vital role in campus life. Besides providing an opportunity for students to become involved in campus activities and leadership development, they are one of the primary vehicles for students to develop relationships and friendships outside of the classroom. Student organizations are not the only way that students develop peer groups during college, but they are one of the key university-recognized structures that support relationships within the collegiate community. Accordingly, they may shape patterns of cross-racial interaction.

Previous studies on cross-racial interaction and interracial friendship have controlled for involvement in ethnic student organizations and Greek life because these groups tend to be racially homogeneous (see, e.g., Chang & DeAngelo, 2002; Stearns, Buchmann, & Bonneau, 2009; Sáenz, 2010). In such studies, Greek life has been found to be negatively related to cross-racial interaction.

JULIE J. PARK is an Assistant Professor in the Department of Counseling, Higher Education, and Special Education, University of Maryland, College Park. YOUNG K. KIM is an Assistant Professor in the Department of Doctoral Higher Education, Azusa Pacific University. They presented an earlier version of this paper at the annual meeting of the Association for the Study of Higher Education, Charlotte, North Carolina, November 2011. Address queries to Julie J. Park, 3214 Benjamin Building, College Park, MD 20742; telephone: (301) 405–7998; fax: (301) 405–9995 email: parkjj@umd.edu.
interaction and interracial friendship (Park, 2012; Sáenz, 2010; Stearns, Buchmann, & Bonneau, 2009) while ethnic student organizations have generally not.

However, previous studies have not disentangled the direct and indirect relationships between various aspects of the campus environment related to participation in student organizations, which in turn may affect whether participation in such groups is significantly linked to diversity-related outcomes. In this study, we add to the research on how peer environments like student organizations influence students’ experiences with diversity by parsing out the direct and indirect relationships. Using structural equation modeling (SEM), this study asks: (a) How do precollege characteristics, structural diversity, and peer interaction in student organizations (Greek, ethnic, and religious) affect the development of interracial friendships during college? (b) What are the direct and indirect relationships between the variables? (c) To what extent does peer interaction in different student organizations mediate the relationship between structural diversity and interracial friendships?

**Background and Literature**

To set a context for the study, we describe the role of interracial friendship in society and the campus environment. We then explain how certain student subcultures may influence the likelihood of students forming interracial friendships during college.

**Interracial Friendship: Possibilities and Challenges**

Interracial friendship is critical to healthy intergroup relations and human flourishing in a diverse democracy. Such friendships foster sustained bonds of social trust and serve as bridges between different communities in a society where social relations are often divided along racial/ethnic lines (Emerson & Woo, 2006). Benefits of interracial friendship include empathy for other racial/ethnic groups, positive racial attitudes, and decreases in prejudice (antonio, 2001; McClelland & Linnander, 2006; Pettigrew & Tropp, 2008; Powers & Ellison, 1995). Interracial friendship can facilitate the exchange of social capital across different sectors of society, providing entry into different social networks and communities (Wong, 2009). Close interracial friendships may be particularly effective in yielding enhanced positive intergroup attitudes. The amount of time invested and the self-disclosure that occurs in relationships with strong emotional bonds likely enhance individuals’ ability to transfer positive attributes to the broader outgroup (Davies, Tropp, Aron, Pettigrew, & Wright, 2011; Pettigrew, 1998).

Important as interracial friendships are in a society that is fractured by racial divisions, they are unfortunately rare. A major deterrent to interracial friendship is homophily, which describes the phenomena of “likes attracts
“likes” or “similarity breeds attraction” (McPherson, Smith-Lovin, & Cook, 2001). Due to the pervasive racialized stratification of American society, race is the most common determinant of homophily. Individuals are more likely to perceive each other as similar if they are of the same racial and/or ethnic background, and thus are more likely to form social bonds. For U.S. students prior to college, extensive residential and school segregation discourages interracial friendship (Joyner & Kao, 2000; Mouw & Entwisle, 2006). Similar patterns affect postcollegiate interracial friendship: In 2004, only 15% of U.S. adults stated that they had a friend of another race with whom they discussed important matters (McPherson, Smith-Lovin, & Brashears, 2006).

However, racially diverse universities present a unique opportunity to break the cycle of pre- and postcollege segregation in friendship patterns. The campus racial climate framework stipulates that structural diversity, the historical legacy of the institution, the psychological perceptions that students have about the campus climate, and the behavioral dimension all contribute to the state of campus race relations (Hurtado, Griffin, Arellano, & Cuelalar, 2008). The behavioral dimension of the campus racial climate includes intergroup and intragroup relations, including cross-racial interaction and interracial friendship. In particular, interracial friendship in college can forge relationships between different sectors of campus, promoting interracial cooperation and sustained positive cross-racial interaction in the context of meaningful relationships (Park, 2013). Thus, encouraging interracial friendship is paramount to universities’ efforts to foster a positive campus racial climate, maximize the benefits of diversity, and prepare students for citizenship in a diverse democracy.

The Role of Student Subcultures

Overall, higher structural diversity (a measure capturing the racial heterogeneity of the student body or the percentage of students of color) is associated with higher levels of cross-racial interaction and interracial friendship (Bowman, 2012; Chang, Astin, & Kim, 2004; Fischer, 2008; Park, 2012; Sáenz, 2010). However, even at racially diverse institutions, students may spend their free time in racially homogeneous student subcultures. In doing so, they may engage less with the broader diversity of the institution, which prevents them from reaping the benefits associated with racial diversity (Milem, Chang, & Antonio, 2005). Diversity research often neglects the relational embeddedness of students and assumes that students on the same campus experience diversity in uniform ways (Gonzalez Clarke & Antonio, 2012), thus necessitating a closer examination of the role of student subcultures and peer groups.

Participating in homogeneous subcultures can prevent students from engaging with diversity because student subcultures (including certain types of student organizations) are characterized by tight social bonds and repeated interactions among members (Newcomb, 1966). Peer groups play a vital role
in students’ lives. In his seminal work *What Matters in College*, Alexander Astin (1997) concluded: “The student’s peer group is the single most potent source of influence on growth and development during the undergraduate years” (p. 398). As students invest more time in the subculture of their peers, they are less likely to form relationships outside of the subculture, in part because the students within the subculture are most proximate. Proximity within an environment increases the likelihood that individuals will form relationships with one another—a phenomenon known as propinquity (Sigelman & Welch, 1993). Thus, if a student is a member of a racially homogeneous subculture, not only is he or she more likely to form same-race friendships within the subculture, but he or she is also potentially less likely to form interracial relationships outside of the subculture (antonio, 1998). Individual choice also influences friendship networks, and some students may deliberately seek out social environments that are more or less diverse (antonio, 2004). However, beyond personal agency, social forces such as homophily and propinquity affect friendship group diversity.

Research documents that at least three types of student subcultures tend to be racially homogeneous peer environments. First, historically White fraternities and sororities are often majority or almost completely White environments (Chang & DeAngelo, 2002; Milem, Chang, & antonio, 2005; Park, in press). Second, ethnic student organizations tend to be racially homogeneous, which is not surprising given their unique mission in supporting students of color (Sidanius, Levin, van Laar, & Sears, 2008). Third, with some exceptions (Cole & Ahmadi, 2010), religious organizations are often racially homogeneous (Kim, 2006), paralleling the larger pattern in which religion is the most segregated arena of American life. More than 90% of U.S. churches are racially homogeneous (Emerson & Chai Kim, 2003).

In a recent study using national data to examine the racial composition of such groups, Park (in press) found that Greek life was particularly racially isolating for White students; 97.1% of White students who participated in Greek life reported that their Greek organizations were majority White environments. Ethnic student organizations and religious student groups were the environments where Black and Asian Americans were more likely to spend time with same-race peers.

Not only are these subcultures more racially homogeneous in their membership, but participation in such environments may also affect student engagement with diversity. Findings are most consistent regarding the effects of Greek life. Multiple studies have found that participating in Greek life is negatively associated with cross-racial interaction (antonio, 1998; Luo & Jamieson-Drake, 2009; Sáenz, 2010) and interracial friendship (Park, 2012; Stearns, Buchmann, & Bonneau, 2009). In one study, participating in a religious student organization was not significantly related to cross-racial interaction (Luo & Jamieson-Drake, 2009) while in others it was negatively
related to having at least one close friend of another race (Park, 2012; Park, in press). The evidence is similarly inconclusive in regards to ethnic student organizations.

Given the important role that interracial friendship plays in enhancing societal and campus intergroup relations, additional research is needed to clarify the relationship between interracial friendship, student organizations, and structural diversity. Although most of the aforementioned studies controlled for the structural diversity of the institution, they tell us only that negative relationships exist between participation in such student organizations and diversity-related outcomes. Because of the analytic methods used, they are unable to explain whether interacting more often with peers from particular student organizations actually mediates the relationship between structural diversity and diversity-related outcomes. Thus, we use structural equation modeling to investigate how engagement in peer environments is related—directly, indirectly, or not at all—to the outcome of interracial friendship.

A secondary gap in the literature is that none of the aforementioned studies control for the extent of a student’s involvement in a particular organization; they capture only whether a student self-identifies as a member. A key component of student subcultures is that members share tight social bonds and frequently interact with one another, which may shape students’ patterns of social relations and behavioral norms over time (Newcomb, 1966). Not only does our study examine whether students self-identify as members of a subculture but it also controls for how often the student interacts with members of the same subculture. Thus, an additional contribution is the study’s ability to capture whether interacting more frequently with members from a student subculture has a significant effect on interracial friendship during college.

**Conceptual Framework**

Figure 1 shows the hypothesized path model for the relationship between precollege racial diversity, structural diversity, student organizations, and interracial friendship. The hypothesized path model was developed from the literature on interracial friendship among college students, with further backing from research on cross-racial interaction and the campus racial climate. First, studies indicate that students of color are more likely than White students to have friends of other races during college (Fischer, 2008; Park, 2012) so we hypothesized a direct positive relationship between being a student of color and interracial friendship in college.

Previous research also states that students of color are more likely to have friends of other races during high school (Joyner & Kao, 2000); hence, being a student of color is expected to affect interracial friendship in high school in our path model. Given the research that most fraternities and sororities
are majority White environments (Milem, Chang, & antonio, 2005; Park, in press), we also assumed that being a student of color has a negative relationship with involvement in Greek life. In contrast, several studies point to the salience of religion for students of color (Kim, 2006; Park, 2013; Stewart, 2002; Strayhorn, 2011) and higher involvement in ethnic organizations (Museus, 2008; Park, in press); thus, our path model presumed positive relationships between being a student of color and involvement in both religious and ethnic organizations.

Using large-scale college student datasets, college impact literature has documented that structural diversity promotes students' cross-racial interaction and interracial friendship (Bowman, 2012; Chang, Astin, & Kim, 2004; Fischer, 2008; Park, 2012; Sáenz, 2010). According to the findings, we delineate a direct relationship between structural diversity and interracial friendship in college in our path model. However, research also suggests that students who attend racially diverse campuses do not necessarily experience diversity in the same manner (Gonzalez Clarke & antonio, 2012), given that student subcultures can influence interracial interaction and friendship (Milem, Chang, & antonio, 2005). Particularly, studies suggest that at least three types of organizations—Greek, ethnic, and religious student organizations—tend to be racially homogenous (Bryant, 2004; Chen, 1998; Kim, 2006; Magolda & Ebben Gross, 2009; Milem, Chang, & antonio, 2005; Park, 2012; Sidanius et al., 2008). Hence, the extent to which students interact with peers from the group might affect engagement with diversity, mediating the effect of structural diversity on students' diversity outcomes (interracial friendship in
this case). Therefore, we hypothesized three indirect paths between structural diversity and interracial friendship mediated by involvement in the three types of student organizations. In accounting for interactions with peers from student organizations, we hope to account for “the processes and socializing impact of organizations in which face-to-face interaction among members is possible and common” (Gonzalez Clarke & Antonio, 2012, p. 29), while also considering how involvement in such groups may mediate the relationship between structural diversity and interracial friendship.

Lastly, higher education literature emphasizes the importance of controlling for students’ precollege characteristics in order to get a less biased estimate of the effects of different college environments and experiences on college outcomes (Astin, 1991; Pascarella & Terenzini, 1991, 2005). Given the findings from previous studies that students’ racial identification, precollege levels of interracial friendship, and high school racial composition tend to influence the patterns of interracial interaction and friendship in college (Bowman, 2012; Fischer, 2008; Park, 2012; Sáenz, 2010), we included students’ race (being a student of color), high school friendship with other races, and the structural diversity of the high school in our path model.

**Method**

**Data and Sample**

This study used data from the National Longitudinal Study of Freshmen (NLSF), which is a five-wave longitudinal survey housed at Princeton University of 3,864 students from 28 selective institutions. Our sample drew on the data of the first, fourth, and fifth waves collected at the beginning of the first year of college, and end of the third and fourth year of college, respectively. Given the study’s focus on the effect of peer interaction in various student organizations on interracial friendship, the sample was limited to students who participated in at least one of three student organizations found to be significant predictors of interracial friendship (i.e., Greek, religious, or ethnic organization) in previous research (Park, 2012). During the data screening phase, we excluded 255 cases that had missing values for one or more variables in the hypothesized path model and also excluded students from historically Black colleges and universities, because their context for racial demography in student organizations substantially differed from the rest of the sample. Consequently, the final sample used for the analysis of this study was composed of 752 students.

Based on a sample size-to-parameters ratio ($N = 752, q = 27$ for a $28:1$ ratio in this case; $N:q$ ratio of $20:1$ considered ideal) suggested by Jackson (2003) and Kline (2011), the final sample size of this study is considered above
ideal for a SEM analysis. Gender and ethnic composition of the analytical sample are as follows: 307 (40.8%) male and 445 (59.2%) female students; 165 (21.9%) White, 194 (25.8%) Black, 152 (20.2%) Latino, and 241 (32.0%) Asian American students.

**Variables**

**Main Endogenous Variable**
The primary outcome measure in our path model was students’ interracial friendship at the end of the fourth year of college. To assess the interracial friendship, we employed a generalized heterogeneity measure developed by Moody (2001) using the following formula:

$$\text{heterogeneity} = 1 - \sum_k \left( \frac{n_k}{N} \right)^2,$$

where $N$ is the total number of friends and $n_k$ is the number of people in group $k$. During students’ fourth year of college, they were asked to “think of the four people at (name of most recent college attended) with whom you have been closest during your college years” and “list the race/ethnicity of each of the friends.” Using the above formula, the number of friends of a certain race was divided by the total number of listed friends (i.e., four, in this case) and then squared. The sum of each squared proportion was added and then subtracted from 1. Consequently, the heterogeneity measure ranged from 0, where a student had four friends of the same race, to 0.75 where a student had a friend from each of the four racial/ethnic groups.

**Mediating Endogenous Variables**
Besides the primary endogenous variable, we included five other endogenous variables: interracial friendship in high school, structural diversity in college, and peer interactions in three types of student organizations (Greek, religious, and ethnic student organizations). These variables are mediating endogenous variables—i.e., they are predicted by one or more exogenous variables while predicting other endogenous variable(s). We calculated interracial friendship in high school using the same formula by which we measured interracial friendship in college. We included this variable in the path model as a pretest; thus, we are able to examine the growth or development of interracial friendship over four years of college. Structural diversity is a continuous variable capturing the racial heterogeneity of the students’ undergraduate institution. Using principal component factoring and Varimax rotation method, we also developed three factor scales to gauge the level of peer interactions in three different types of student organizations: Greek, religious, and ethnic student organizations. We created each of the composite measures by combining two
**Table 1**

**Means, Standard Deviations, and Correlations Among the Variables Used in the Hypothesized Path Model for the Relationship Between Structural Diversity and Students’ Interracial Friendship in College**

(n = 752)

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Interracial friendship in college</td>
<td>.26</td>
<td>.24</td>
<td>—</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Race (0 = White, 1 = students of color)</td>
<td>.78</td>
<td>.41</td>
<td>.28**</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Interracial friendship in high school</td>
<td>.34</td>
<td>.24</td>
<td>.26**</td>
<td>.21**</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Structural diversity in high school</td>
<td>.44</td>
<td>.22</td>
<td>.08**</td>
<td>.10**</td>
<td>.35**</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Structural diversity in college</td>
<td>.46</td>
<td>.13</td>
<td>.12**</td>
<td>.02**</td>
<td>.15**</td>
<td>.18**</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Peer interaction in Greek organization</td>
<td>3.09</td>
<td>3.86</td>
<td>-.21**</td>
<td>-.29**</td>
<td>-.13**</td>
<td>-.07**</td>
<td>-.10**</td>
<td>—</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Peer interaction in religious organization</td>
<td>1.90</td>
<td>3.27</td>
<td>-.05**</td>
<td>-.03**</td>
<td>.01**</td>
<td>.08**</td>
<td>.03**</td>
<td>-.39**</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>8. Peer interaction in ethnic organization</td>
<td>2.50</td>
<td>3.22</td>
<td>.21**</td>
<td>.34**</td>
<td>.09**</td>
<td>-.01**</td>
<td>.09**</td>
<td>-.50**</td>
<td>-.36**</td>
<td>—</td>
</tr>
</tbody>
</table>

Note: *p < .05, **p < .01
items that ask students the amount of time spent interacting either *formally* or *informally* with other students from the same organizations; we scored the items on a five-point Likert scale (1 = once a month to 5 = every day). The reliability estimates for the composite measures ranged from .89 to .96.

**Exogenous Variables**

Our model includes two exogenous variables: race (students of color) and structural diversity in high school. Race is a dichotomous variable with White coded as 0 and students of color coded as 1. While our data had salient proportions of African American, Latino, and Asian American students (described above in the “Data and Sample” section), we decided to aggregate them into a single group—students of color—because we found from preliminary data analysis that the variability in most of our endogenous variables among the four different racial groups was relatively smaller than the variability between White and students of color. Also, in a methodological sense, use of a dichotomous race variable improved the model specification and identification by securing a favorable degree of freedom for the model estimation. Structural diversity in high school is a continuous variable that captures the racial heterogeneity of the students’ high school based on students’ estimates of the percentage of White, Black, Latino/a, and Asian American students. The higher the value; the more heterogeneous the high school population. Means, standard deviations, and correlations among all the variables used in the hypothesized path model are presented in Table 1.

**Analysis**

This study used structural equation modeling to examine direct and indirect relationships among student race, high school interracial friendship, structural diversity in both high school and college, and peer involvement in student organizations, as these variables shape students’ interracial friendship. The SEM is an extension of the general linear model and allows researchers to test more than one regression equation simultaneously. While the NLSF data may have two- or three-level hierarchies (where individual students are nested within academic majors, which are in turn nested within institutions), this study chose to use SEM instead of using multilevel modeling, given that the study is mainly interested in developing a structural equation (i.e., multiple equation) model that best predicts interracial friendship in college rather than estimating its individual- and cross-level effects. SEM allows us to examine the indirect relationships between variables, an approach missing in previous studies. Also, the NLSF data did not include any direct or indirect institution identifiers, which does not allow us to test multilevel models. Potential biases that may relate to the use of SEM are discussed in the “Limitations” section.
As shown in Figure 1, our hypothesized path model includes five endogenous variables (one main and four mediating endogenous variables), which creates five different regression equations to be tested (one equation per endogenous variable). Presentation of both direct and indirect effects between variables is another benefit of SEM and helps us more fully understand the nature of the relationships among the variables in our path model.

For the SEM analysis in this study, we first specified a hypothesized path model based on empirical findings from previous research and estimated the model using AMOS 18.0. Based on AMOS recommendations, we then modified the hypothesized path model until the model reached a good fit with the data. To further investigate the mediation effect of peer interaction in student organizations between structural diversity in college and interracial friendship, we tested an alternative model where the direct path from the initial variable (i.e., structural diversity) to the outcome variable (i.e., interracial friendship in college) was constrained to 0 and then compared its chi-square statistic with that of the original model.

**Limitations**

While this study makes numerous contributions to the study of student subcultures and interracial friendship, it is limited in certain respects. The sample contains students attending selective institutions of higher education and thus findings may not be generalizable to all college students. Also, Native American students were not included in the sample due to their low numbers in the NLSF sample. Additionally, use of a dichotomous race variable (White versus students of color) may limit the scope of our findings because we could not address the variance in our endogenous variables across different racial groups. It should be also noted that the dependent variable captures only close interracial friendship, as students were limited to listing their four closest friends.

The use of a secondary dataset is another limitation of this study. Some variables that might affect college students’ interracial friendship such as institutional size were not available in the NLSF data. For the same reason, structural diversity in high school was measured by students’ estimates of the percentage of racial composition in their high schools rather than the actual percentage. Lastly, while the NLSF data may have two- or three-level hierarchies (i.e., student-, department-, and institution-level), this study hypothesized for the purpose of SEM analysis that the NLSF data have no hierarchies. Although it is common practice in social science research to assume and use random sampling models for clustered samples (Garson, 2009), it should be noted when interpreting findings that there may be biases (e.g., aggregation biases) derived from not accounting for between-department and/or between-institution variance.
Final Path Model

Figure 2 displays the final path model developed by the study, presenting standardized path coefficients. Both the chi-square statistic and other fit indices indicate that the model has a good fit to the data ($\chi^2 = 20.436$, $p > .05$; CFI = .993; TLI = .984; RMSEA = .031). Most parameter estimates were significant and consistent with our hypothesized model. The final model suggests that structural diversity in college has both a direct and an indirect positive effect on college students’ interracial friendship. (The indirect effect is the mitigation of the impact of peer interaction in Greek organizations.) As we assumed, students’ racial background and structural diversity in high school were significantly related to their interracial friendship in high school; having interracial friendships in high school positively predicted both structural diversity and interracial friendship in college. Students of color were significantly more likely to have interracial friendships in college.

However, the final path model also indicated that some of the paths in our initial model were statistically non-significant and inconsistent with our hypothesis. While students’ race had a significant effect on students’ peer involvement in Greek and ethnic organizations (consistent with our hypothesis), it did not have an effect on peer involvement in religious organizations (inconsistent with our hypothesis). Structural diversity in college significantly predicted students’ peer interaction in Greek and ethnic
organization (consistent with our hypothesis), but this was not the case for religious organizations (inconsistent with our hypothesis). In contrast to students’ peer involvement in Greek and religious organizations, peer interaction in ethnic organizations did not have a significant impact on students’ interracial friendship in college (inconsistent with our hypothesis). Based on the recommendation from AMOS, we also added a new path from structural diversity in high school to structural diversity in college to the final path model used in this study.

**Direct and Indirect Effects**

Results from the SEM analysis showed several direct and indirect effects among variables in the path model. Parameter estimates for direct and indirect effects along with R-squared statistics are summarized in Table 2. Structural diversity in college had a positive direct effect ($\beta = .07, p < .05$) on the development of students’ interracial friendship (our main endogenous variable), even after controlling for students’ race and their high school environment and experience. That is, the results suggest that students who attended more racially heterogeneous colleges overall had greater gains in interracial friendship during college years. A higher level of interracial friendship in college was also evident among students who were non-White ($\beta = .19, p < .001$) and had more interracial friendships in high school ($\beta = .20, p < .001$).

In terms of the direct effects of student subculture involvement on interracial friendship in college, peer interactions in Greek ($\beta = -.17, p < .001$) and religious organizations ($\beta = -.12, p < .01$) had negative direct effects on the growth of interracial friendship during college, while the effect of peer interactions in ethnic organizations was non-significant. In other words, students who interacted more frequently with members of Greek or religious organizations tended to have lower gains in their interracial friendship during college. However, there was no such effect associated with interacting with peers from ethnic student organizations.

Being a student of color and structural diversity in college were also significantly associated with other endogenous variables in the model. Results indicated that students of color tended to have higher levels of interracial friendship during high school ($\beta = .18, p < .001$), interacted more frequently with peers in ethnic organizations ($\beta = .33, p < .001$), and interacted less frequently with peers in Greek organizations ($\beta = -.31, p < .001$). Attending more racially diverse colleges and universities appeared to promote peer interaction in ethnic organizations ($\beta = .10, p < .01$), while it seemed to discourage interacting with peers in Greek organizations ($\beta = -.08, p < .01$).

Table 2 also shows that students who attended racially heterogeneous high schools ($\beta = .15, p < .001$) and had more interracial friendships in high school ($\beta = .10, p < .05$) were more likely to attend colleges with racially diverse student populations.
### Table 2

**Summary of Direct and Indirect Effects of the Final Path Model for the Relationship Between Structural Diversity and Students’ Interracial Friendship in College**

\(n = 752\)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Direct Effects ((\beta))</th>
<th>Indirect Effects ((\beta))</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interracial friendship in high school</td>
<td></td>
<td></td>
<td>.151</td>
</tr>
<tr>
<td>Race (students of color)</td>
<td>.184***</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>Structural diversity in high school</td>
<td>.342***</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>Structural diversity in college</td>
<td></td>
<td></td>
<td>.042</td>
</tr>
<tr>
<td>Race (students of color)</td>
<td>--</td>
<td>.018**</td>
<td></td>
</tr>
<tr>
<td>Structural diversity in high school</td>
<td>.149***</td>
<td>.034*</td>
<td></td>
</tr>
<tr>
<td>Interracial friendship in high school</td>
<td>.098*</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>Peer interaction in Greek organization</td>
<td></td>
<td></td>
<td>.098</td>
</tr>
<tr>
<td>Race (students of color)</td>
<td>-.310***</td>
<td>-.001*</td>
<td></td>
</tr>
<tr>
<td>Structural diversity in high school</td>
<td>—</td>
<td>-.014**</td>
<td></td>
</tr>
<tr>
<td>Interracial friendship in high school</td>
<td>—</td>
<td>-.008*</td>
<td></td>
</tr>
<tr>
<td>Structural diversity in college</td>
<td>-.078*</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>Peer interaction in ethnic organization</td>
<td></td>
<td></td>
<td>.127</td>
</tr>
<tr>
<td>Race (students of color)</td>
<td>.331***</td>
<td>.002**</td>
<td></td>
</tr>
<tr>
<td>Structural diversity in high school</td>
<td>—</td>
<td>.019**</td>
<td></td>
</tr>
<tr>
<td>Interracial friendship in high school</td>
<td>—</td>
<td>.010**</td>
<td></td>
</tr>
<tr>
<td>Structural diversity in college</td>
<td>.103**</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>Interracial friendship in college</td>
<td></td>
<td></td>
<td>.152</td>
</tr>
<tr>
<td>Race (students of color)</td>
<td>.185***</td>
<td>.092**</td>
<td></td>
</tr>
<tr>
<td>Structural diversity in high school</td>
<td>—</td>
<td>.083**</td>
<td></td>
</tr>
<tr>
<td>Interracial friendship in high school</td>
<td>.197***</td>
<td>.009*</td>
<td></td>
</tr>
<tr>
<td>Structural diversity in college</td>
<td>.073*</td>
<td>.014**</td>
<td></td>
</tr>
<tr>
<td>Involvement in Greek organization</td>
<td>-.173***</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>Involvement in religious organization</td>
<td>-.120**</td>
<td>—</td>
<td></td>
</tr>
</tbody>
</table>

*Note:* *\(p < .05\), **\(p < .01\), ***\(p < .001\)

Results also indicated some interesting indirect effects among the variables. College structural diversity had a positive indirect effect on interracial friendship in college, mediated by students’ involvement in Greek organizations. That is, students who attended more racially diverse institutions tended to grow more in interracial friendship in college, mediated by lower involvement in Greek organizations. The results suggest that frequent interaction
with peers in Greek organizations is negatively related to the development of interracial friendships in college; however, students who attend more racially diverse institutions are less likely to interact with peers in Greek organizations, which in turn makes the indirect effect of structural diversity in college on interracial friendships positive.

An indirect effect was also observed between being a student of color and interracial friendships in college (mediated by peer interaction in Greek organizations). Results show that students of color tended to have greater gains in their interracial friendships in college than their White counterparts, which is mediated by their less frequent involvement in Greek organizations. In other words, students of color are less likely than White students to interact with peers from Greek organizations; subsequently, the lower peer involvement in Greek organizations appears to facilitate the growth of interracial friendship. Concurrently, White students are more likely to interact with peers from Greek organizations, and this greater involvement decreases their likelihood of having a friend of another race during college. Unfortunately, we did not test the path between race, structural diversity, Greek organization involvement, and interracial friendship to see whether the link between race and Greek life involvement is mediated by the structural diversity of the institution. However, attending a structurally diverse institution is associated with fewer interactions with peers from Greek organizations, which is in turn associated with higher levels of interracial friendship. Thus, it is not illogical to conclude that structural diversity may be a particularly important factor in the likelihood of White students forming interracial friendships, as it appears to buffer the negative effects associated with more frequent interactions with peers from Greek life organizations.

Students of color in the sample tended to attend more racially diverse universities, mediated by their higher level of interracial friendship in high school. Students who attended more racially diverse high schools also tended to attend more racially diverse colleges and universities, mediated by their stronger interracial friendships in high school. Students who had more interracial friendships in high school were less likely to interact with peers in Greek organizations and more likely to interact with peers in ethnic student organizations, mediated by their higher likelihood of attending racially diverse colleges and universities. That is, students who had more interracial friendships in high school tended to attend more racially diverse colleges, which in turn discouraged peer interaction in Greek organizations and enhanced peer interaction in ethnic organizations. Furthermore, interracial friendship in high school had an indirect positive effect on interracial friendship in college, mediated by students’ higher likelihood of attending racially diverse institutions.
Mediation Effect

The aforementioned findings reveal the mediation effect of peer interaction in Greek organizations on the relationship between structural diversity and interracial friendship. That is, Figure 2 shows that the effect of structural diversity on interracial friendship in college is mediated by peer interaction in Greek organizations (mediating or intervening variable), and structural diversity in college still directly affects interracial friendship in college. While the global model fit indices discussed earlier seem to support this partial mediation assumption among the variables, we tested an alternative model in order to investigate more rigorously whether the intervening variable (peer interaction in a Greek organization) had a complete or partial mediation effect. In doing so, we constrained the path from structural diversity to interracial friendship in college to 0 and compared its chi-square statistic with that of the original model.

As shown in Table 3, the alternative model had a significantly worse model fit ($\Delta \chi^2 (1) = 4.577, p < .05$) compared to the original model, suggesting that peer interaction in Greek organizations partially mediates the relationship between structural diversity in college and interracial friendship. In other words, it indicates that structural diversity in college has a significant direct effect on interracial friendship even after controlling for the mediation effect of peer interaction in Greek organizations.

Discussion

Overall, our study confirms findings from previous studies and breaks new ground by highlighting how certain types of peer interactions in student organizations mediate the relationship between structural diversity and interracial friendship. Greek life was the only type of student organization that had any mediation effect between structural diversity and interracial friendship in college. We found that students who attend more racially diverse institutions tend to interact less with peers in Greek organizations, which in turn mitigates the negative effect of Greek life on interracial friendship. Our study adds to Chang and DeAngelo’s (2002) work by showing that structural diversity is not only associated with lower participation in Greek life, but also that the mediation effect of Greek life actually influences a diversity-related outcome.

Notably, the combination of a negative connection from structural diversity to Greek involvement and another negative link from Greek involvement to interracial friendship actually produces a positive indirect effect of structural diversity on interracial friendship. Given previous research suggesting that Greek life participation is negatively associated with students’ openness to diversity (Pascarella, Edison, Nora, Hagedorn, & Terenzini, 1996) and lower
rates of interracial interaction (antonio, 1998; Luo & Jamieson-Drake, 2009; Sáenz, 2010), we might expect that Greek involvement would diminish the original positive relationship between structural diversity and interracial friendship. However, our final path model suggests that structural diversity acts as a buffer for the negative influence of peer involvement in Greek organizations on interracial friendship; therefore, the mediation effect of Greek life between structural diversity and interaction friendship turns out to be positive, strengthening the direct relationship between structural diversity and interracial friendship. It may be that Greek life is less prominent on more racially diverse campuses, which may encourage students in fraternities and sororities to form more friendships (including interracial friendships) outside of the Greek subculture. On such campuses, Greek life likely acts less as a balkanizing force, thus decreasing self-segregation for White students.

We also found that religious organization involvement does not mediate the relationship between structural diversity and interracial friendship. While involvement in religious organizations is negatively linked to interracial friendship, this effect is not influenced by the structural diversity of an institution. This study is one of the first to investigate any sort of relationship between religious involvement and diversity-related outcomes in college. While involvement in religious organizations is negatively related to interracial friendship, the effect appears to be a byproduct of the actual organization and, unlike Greek life, is not facilitated or inhibited by the structural diversity of the institution.

This finding is a key addition to our understanding of how structural diversity has different types of relationships with various student organizations. It appears that, writ-large, racial homogeneity in religious student organiza-

| Table 3 |
|-----------------|---|---|---|---|---|---|
| Test of Mediation Effect between Colleges’ Structural Diversity and Students’ Interracial Friendship: Fit Statistics for the Original and an Alternative Model |

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>CFI</th>
<th>$\Delta \chi^2$</th>
<th>$\Delta df$</th>
<th>$\Delta CFI$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original model (n = 752)</td>
<td>20.436</td>
<td>12</td>
<td>.993</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alternative model: The direct path coefficient from structural diversity to interracial friendship in college is constrained to 0 (n = 752)</td>
<td>25.013</td>
<td>13</td>
<td>.990</td>
<td>4.577</td>
<td>1</td>
<td>&lt; .05</td>
</tr>
</tbody>
</table>
The finding that greater involvement with peers from religious groups has a negative effect on interracial friendship is consistent with past research that has found that having religious peers tends to have a socializing effect on students (Bryant, 2011). Future research should focus on the relationship of involvement in specific religious affiliations on interracial friendship, given that different religious traditions appear to accommodate racial diversity in different ways (Cole & Ahmadi, 2010; Park, 2013).

Another key finding is that interacting more frequently with peers from ethnic student organizations was not a negative predictor of interracial friendship, as some critics of “self-segregation” might suggest. Ethnic student organizations tend to be relatively racially homogenous, and some argue that such organizations promote balkanization on campus. However, findings indicate that greater involvement with peers in ethnic organizations does not prevent students from having friends of other races. While students of color were more likely to participate in ethnic organizations, interacting more frequently with peers from such organizations did not lower the number of interracial friendships.

Moreover, a student’s race (being a student of color) had both a direct and indirect positive effect on interracial friendship. This finding suggests that, while students of color tend to have a higher likelihood of participating in racially homogenous environments such as ethnic student organizations, they maintain both inter- and intra-group friendships during the college years. Additionally, the indirect positive relationship between a student’s race and interracial friendship—mediated by high school friendship diversity, structural diversity in college, or Greek participation—suggests that students of color seem to benefit from their higher level of precollege exposure to other races and other aspects of college involvement that enhance interracial friendship (e.g., lower Greek involvement).

Our findings also highlight the significance of structural diversity as it relates to interracial friendship. Structural diversity has a direct positive effect on students’ interracial friendship in college, even after controlling for the influence of student race, precollege diversity experience, and college peer involvement in student organizations. While higher education scholars have established the positive association between structural diversity and desired educational outcomes—including greater cognitive development, more positive academic and social self-concept, a higher level of cultural awareness, and greater college satisfaction (antonio, 2001; Chang, 1996, 1999; Chang, Denson, Sáenz, & Misa, 2006, Jayakumar, 2008)—they tend to consider the relationship as “indirect,” effected through the mediation of increased engagement with diversity (e.g., cross-racial interaction, ethnic studies courses,
roommate from a different race). However, this study identified a direct positive effect as well as an indirect effect of structural diversity on students’ interracial friendship. This finding seems to suggest that irrespective of race, students can benefit from simply attending a racially heterogeneous institution when it comes to interracial friendship.

While this study provides some explanations of the context in which students’ precollege characteristics, structural diversity, and peer environments (i.e., participation in Greek, ethnic, and religious organizations) shape interracial friendship in college, the squared multiple correlation of interracial friendship in our final model ($R^2 = .152$) suggests that future research is needed to understand the unexplained variance. Indeed, while they are statistically significant, some path coefficients of our model have a relatively small influence on interracial friendship. To uncover the unknown portion, future research might consider incorporating additional exogenous and/or mediating endogenous variables to path models such as participation in diversity-related curricular/co-curricular activities and institutional size. Previous studies found that these variables affected college students’ interracial friendship (Fischer, 2008; Sáenz, 2010; Sáenz, Ngai, & Hurtado, 2007). For the same purpose, future research would also consider using actual high school data to capture students’ precollege background and experiences (e.g., structural diversity in high school) rather than using students’ self-reports.

**Conclusion and Implications**

Overall our findings indicate that higher levels of interactions with peers in certain types of student organizations (Greek and religious) are linked to lower levels of interracial friendship, while great involvement in ethnic student organization has no effect on interracial friendship during college. Furthermore, involvement in Greek organizations mediates the relationship between structural diversity and interracial friendship, wherein greater structural diversity decreases the likelihood of students being more involved in Greek life, which ultimately has a positive effect on interracial friendship. Students of color overall are significantly more likely to have close friends of other races during college. Additionally, the overall structural diversity of the institution has a direct and positive relationship on the development of interracial friendship, even when controlling for students’ precollege interracial friendship, the racial composition of students’ high schools, students’ race, and their involvement in student organizations.

This study builds on previous studies (Park, 2012; Park, in press), which showed that participation in various student organizations lowered the likelihood of interracial friendship. However, because of the statistical methods employed, previous studies were able to indicate only direct effects between
the independent and dependent variables, rather than the direct and indirect pathways between variables. It should be noted that, when controlling only for participation, Park (2012) found that participating in ethnic student organizations was a negative predictor of interracial friendship, along with religious and Greek life organizations. However, the current study, which controlled for how often students interacted with peers from those same organizations, indicates that greater involvement in ethnic student organizations has no significant effect on interracial friendship. When actual involvement in such organizations—as captured by the amount of time spent interacting formally and informally with peers from the same organizations—is controlled for, no effect exists.

Thus, this study makes a significant contribution to our understanding of how ethnic student organizations shape the campus racial climate, showing that greater participation does not appear to inhibit the formation of interracial friendships. Furthermore, students of color overall are already more likely to have close friends of other races during college (Park, 2012). This article suggests that engaging with peers of the same race and peers of other races is not an “either-or” scenario for students of color, but a “both-and” situation. Ethnic student organizations may provide a venue for students to recharge with same-race peers, but greater involvement in such organizations does not prevent students from forming friendships across race during college.

Additional implications exist concerning the essentialness of racially diverse student bodies and the need for further study of how religion shapes the campus racial climate. Our findings show that structural diversity not only affects interracial friendship in a direct fashion, but it also does so indirectly by diminishing involvement in certain student subcultures that appear to promote balkanization (e.g., Greek life). Thus, this study reinforces the imperative to recruit and retain racially diverse student bodies, and it informs our understanding of how Greek life may affect the campus racial climate in different types of institutions.

While some studies have broadly decried the role of Greek life in promoting self-segregation (Milem, Chang, & Antonio, 2005; Park, in press), our findings indicate that Greek life may have a different sort of impact on different types of institutions. Our findings suggest that Greek life may be especially detrimental to campus racial climate when institutions lack structural diversity, likely because Greek life appears to play a more balkanizing role on such campuses. Participation in Greek life by White students tends to be higher on such campuses (Chang & DeAngelo, 2002), and Greek life may become an overly dominant force that discourages the formation of friendships outside of the Greek subculture. When such subcultures are overriding majority White environments (Park, in press), the likely result is less engagement with the existing diversity of the institution, and fewer opportunities for interracial friendship overall. Because Greek life is often
the domain of students who are both White and wealthy, the pervasiveness of Greek life on less structurally diverse campuses may be a barrier to equal status between students, one of the key pre-conditions for healthy intergroup conduct (Park, Denson, & Bowman, 2013). Thus, our findings point to the need for educators to examine further the role of Greek life at their institutions and to consider how Greek life, in tandem with low levels of structural diversity, may be particularly detrimental to a campus racial climate.

A last implication of our findings is the need for greater research on and attention toward the role of religion in the campus racial climate. In addition to our study, other studies point to how religious affiliation, involvement, and participation in campus religious organizations are linked with lower levels of close interracial friendship during college (Park, 2012). Future studies should examine whether religious involvement and affiliation are linked with lower levels of more casual types of cross-racial interaction, or if the trend is unique to particularly close relationships during college. Pursuing common goals is one of the pre-conditions of healthy intergroup contact, and religion can act as a powerful common goal for students to bridge racial divides, in certain cases (Cole & Ahmadi, 2010; Park, 2013). Educators should be careful not to instantly decry racially homogeneous religious communities on campus as negative self-segregation. Some groups provide similar support as ethnic student organizations for some populations (Kim, 2006; Strayhorn, 2011), being a safe space for students of color and supporting ethnic identity development. On the other hand, when groups lack a specific rationale for maintaining racial homogeneity, educators may challenge such groups by asking questions about their composition and role in the campus racial climate.

Overall our findings provide powerful evidence that student organizations not only play a key role in shaping interracial friendships and, relatedly, the campus racial climate, but that they also play different types of roles and have differing relationships to structural diversity. As campuses consider how they can foster healthy communities where students are able to develop meaningful relationships with one another, we encourage them to consider the varying roles that student organizations and subcultures play in shaping the campus racial climate, cross-racial interaction, and interracial friendship.

References


