

5-2013

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The Conditional Effects of Interracial Interactions on College Student Outcomes

Nicholas A. Bowman

Given the increasing racial diversity among American college students and society, it is critical to promote meaningful interracial interactions during college. Although a burgeoning literature demonstrates the link between interracial interactions and an array of student outcomes, some important issues have been largely overlooked. Most research on interracial interactions does not examine how these effects might vary depending on the groups involved in the interaction. The outcomes for interracial interactions may differ not only between minority and majority students, but also for racial minorities interacting with Whites versus with other people of color. This study explores whether the link between interracial interactions and college outcomes depends upon students' race and the race of students with whom they interact.

Interracial interactions are associated with academic, cognitive, civic, and psychological outcomes that are not explicitly related to diversity, and the strength of these relationships generally does not differ between students of color and White students (e.g., Gurin, Dey, Hurtado, & Gurin, 2002; Kotori, 2009; Locks, Hurtado, Bowman, & Oseguera, 2008; Vogelgesang, 2001). In contrast, interracial interactions are positively linked to diversity-related outcomes for all racial/ethnic groups, but these effects are somewhat stronger among Whites than among students of color (e.g., Hu & Kuh, 2003; Kotori, 2009; Pettigrew

& Tropp, 2006; Vogelgesang, 2001). The differences in predicting diversity outcomes may occur because minority students might be more likely than majority students to perceive interracial interactions in a negative manner, or a ceiling effect may limit some gains for minority students' diversity outcomes.

Very little research has examined whether the impact of interracial interactions depends upon the group with whom students interact (e.g., Blacks' interactions with Latinos versus with Whites). Two exceptions are noteworthy. Lopez (2004) found that, regardless of the racial group with whom students interacted and the type of outcome, the strongest relationships between interracial interactions and outcomes occurred among Asian participants. Unfortunately, this study had a reasonably small number of students of color, so these findings should be viewed cautiously. Second, van Laar, Levin, Sinclair, and Sidanius (2005) found that having a roommate from a different racial/ethnic group was associated with decreased prejudice and more positive intergroup attitudes, and these effects were most pronounced among students who had Black and Latino roommates. In addition, regardless of participants' race/ethnicity, having Asian roommates was associated with *increased* racial prejudice and antipathy. However, those findings may have been influenced by the single-school sample; Asian students were the largest racial/ethnic group at that institution, and the Asians in their study

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had more negative intergroup attitudes than did students from all other groups.

Importantly, psychological research suggests that the impact of interracial interactions with White students may differ from interactions with students of color. In majority–minority interactions, Whites are often concerned about appearing prejudiced, whereas people of color are often concerned about Whites being biased against them (Gaertner & Dovidio, 1986; Vorauer & Kumhyr, 2001). Moreover, students' racial attitudes and preconceptions about their interracial conversational partner substantially affect the outcomes from those interactions (Plant & Devine, 2003; Shelton & Richeson, 2006). Therefore, the effects of interracial interactions may depend upon whether the interactions are minority–majority or minority–minority.

This study examined the extent to which the link between interracial interactions and college student outcomes depends upon students' own race and the race of students with whom they interact. This research avoided some limitations of previous work by using a longitudinal study with large numbers of Asian, Black, Hispanic, and White students. To determine the generalizability of these patterns, the current analyses explored a broad range of outcomes, including several that were not explicitly race-related and several that were race-related.

METHOD

Data from the National Longitudinal Survey of Freshmen were used. Approximately equal numbers of Asian, Black, Hispanic, and White incoming first-year students from 28 selective colleges and universities were invited to take part in the study, and 3,924 students (86%) agreed to participate. Follow-up surveys were conducted at the end of each academic year;

students who transferred or who dropped out of college were followed and retained in the sample to minimize selection bias. In the senior survey, 3,098 students participated, which constitutes a 79% retest response rate from the initial data collection. The final sample included 814 White students, 798 Black students, 765 Asian students, and 721 Hispanic students.

College satisfaction was measured with an index of seven items ($\alpha = .82$). Three outcomes were assessed by asking students how much they had grown in certain domains: Preparation for postcollege life was measured with three items ($\alpha = .81$), relating to people from other races with two items ($\alpha = .87$), and becoming a better person with a single item. Intention to perform volunteer work in the fall after senior year was measured using a dichotomous variable. Participants reported their ease in getting along with people from other racial groups via a three-item index (e.g., for Hispanic students, this was the average of the items regarding Asians, Blacks, and Whites). The degree to which racial minorities should be blamed for their life outcomes was assessed with three items ($\alpha = .93$). The items were identical to one another, except that one asked about the blame that should be given to Asians, one to Blacks, and one to Hispanics. Perceived closeness to other races was measured with three items that asked the extent to which students feel close to Blacks, to Asians, to Whites, and to Hispanics, and the index combined the responses for the three racial/ethnic outgroups for each participant.

Four separate independent variables measured the frequency of interaction with certain racial groups (i.e., with Whites, with Blacks, with Hispanics, and with Asians). Several control variables were used, including gender, parental education, family income, high school GPA, socializing and relaxing, study abroad, undergraduate major, and

TABLE 1.
Unstandardized Coefficients for Hierarchical Linear Modeling Analyses
Predicting Outcomes That Are Not Explicitly Race-Related

Dependent Variable and Key Independent Variables	Participants' Race/Ethnicity			
	Asian	Black	Hispanic	White
College Satisfaction				
Interactions With Asians	—	.129** (.043)	.123** (.046)	-.037 (.033)
Interactions With Blacks	.160*** (.041)	—	.135*** (.035)	.063* (.031)
Interactions With Hispanics	.119** (.044)	.122* (.055)	—	.076* (.035)
Interactions With Whites	.199*** (.045)	.085** (.026)	.133* (.055)	—
Becoming a Better Person				
Interactions With Asians	—	.011 (.045)	.072 (.049)	.006 (.042)
Interactions With Blacks	.137*** (.028)	—	.055 (.048)	.026 (.047)
Interactions With Hispanics	.127** (.047)	.003 (.050)	—	.009 (.038)
Interactions With Whites	.179*** (.039)	-.002 (.036)	.134* (.055)	—
Preparation for Postcollege Life				
Interactions With Asians	—	.060 (.043)	.049 (.045)	-.030 (.040)
Interactions With Blacks	.204*** (.045)	—	.090 (.054)	.063 (.041)
Interactions With Hispanics	.163** (.049)	.102 (.061)	—	.093* (.040)
Interactions With Whites	.189*** (.036)	-.021 (.037)	.073 (.051)	—
Intention to Volunteer After College				
Interactions With Asians	—	.126 (.066)	-.034 (.077)	.215* (.098)
Interactions With Blacks	.164* (.077)	—	.053 (.109)	.154 (.120)
Interactions With Hispanics	.170 (.121)	.198* (.091)	—	.242* (.117)
Interactions With Whites	-.011 (.074)	-.142* (.060)	-.144 (.112)	—

Note. Standard errors are in parentheses. Analyses controlled for gender, parental education, family income, high school GPA, socializing and relaxing, study abroad, college major, and institutional type. Intention to volunteer after college was examined using hierarchical generalized linear modeling analyses and with high school volunteering as an additional predictor variable.

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

institutional type. Pretest variables were created for ease in getting along with people from other races, closeness to other races, and blaming people of color for their life outcomes. The frequency of volunteering during the senior year of high school was used as a pretest for intention for postcollege volunteering.

Hierarchical linear modeling (HLM) analyses were conducted; independent variables were gender, parental education, family income, high school GPA, socializing

and relaxing, study abroad, college major, the pretest measure (when appropriate), and interactions with a racial outgroup as student-level predictors, and institutional type was an institution-level predictor. All independent variables were grand-mean centered. Because intention for postcollege volunteering was a dichotomous variable, hierarchical generalized linear modeling analyses were performed for this outcome. Preliminary analyses showed that interactions

TABLE 2.
Unstandardized Coefficients for Hierarchical Linear Modeling Analyses
Predicting Explicitly Race-Related Outcomes

Dependent Variable and Key Independent Variables	Participants' Race/Ethnicity			
	Asian	Black	Hispanic	White
Closeness to Other Races				
Interactions with Asians	—	.241*** (.030)	.181** (.055)	.075 (.043)
Interactions with Blacks	.252*** (.054)	—	.146*** (.039)	.036 (.049)
Interactions with Hispanics	.254*** (.036)	.192** (.068)	—	.036 (.045)
Interactions with Whites	.227*** (.047)	.156*** (.027)	.134** (.047)	—
Relating to People From Other Races				
Interactions with Asians	—	.190*** (.051)	.157** (.043)	.110*** (.028)
Interactions with Blacks	.291*** (.039)	—	.136* (.061)	.124** (.044)
Interactions with Hispanics	.261*** (.051)	.184*** (.050)	—	.146*** (.036)
Interactions with Whites	.090* (.039)	.118* (.047)	.047 (.064)	—
Ease in Getting Along With People From Other Races				
Interactions with Asians	—	.151*** (.035)	.157** (.045)	.064 (.053)
Interactions with Blacks	.098 (.051)	—	.105* (.051)	.089* (.044)
Interactions with Hispanics	.102* (.043)	.134*** (.034)	—	.026 (.040)
Interactions With Whites	.042 (.038)	.098** (.033)	.099* (.045)	—
Blame People of Color for Life Outcomes				
Interactions with Asians	—	-.031 (.038)	-.052 (.055)	-.075* (.036)
Interactions with Blacks	-.092* (.041)	—	-.071 (.046)	-.113** (.032)
Interactions with Hispanics	-.157** (.047)	-.131** (.044)	—	-.076* (.036)
Interactions with Whites	-.072* (.030)	.006 (.027)	-.037 (.044)	—

Note. Standard errors are in parentheses. Analyses controlled for gender, parental education, family income, high school GPA, socializing and relaxing, study abroad, college major, institutional type, and the pretest measure (except for relating to people from other races, which was indicated via self-reported gains).

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

with different racial outgroups were positively and at least moderately correlated with one another. Therefore, to reduce multicollinearity, analyses were conducted separately with only one of the interracial interaction variables as a predictor. Except for the binary postcollege volunteering outcome, all dependent variables and continuous independent variables were standardized with a mean of zero and a standard deviation of one for inclusion in the analyses; as a result, the unstandardized HLM

coefficients presented here are analogous to standardized regression coefficients.

Some limitations should be noted. The institutions in this sample were highly selective, so the current findings may not generalize to less selective schools. In addition, three outcomes in this study were measured via self-reported gains, which are subject to bias. However, these biases are much less pronounced among seniors than first-year students (Bowman & Hill, 2011; Pike,

1999), and the correspondence between self-reported gains and longitudinal measures is greater for non-cognitive outcomes (e.g., those in the current study) than for cognitive outcomes (Bowman, 2010). Finally, although the examination of several racial/ethnic groups constitutes an improvement over most previous research, considerable heterogeneity exists within each of these groups, and American Indian/Native American students were not sampled in this study.

RESULTS

Results for the outcomes that are not explicitly race-related are shown in Table 1. Interracial interactions are associated with greater college satisfaction, regardless of students' own race and the race of students with whom they interacted (with the exception of Whites' interactions with Asians). Interracial interactions are related to becoming a better person and preparation for postcollege life for Asians' interactions with Blacks, Hispanics, and Whites. In contrast, virtually no significant effects for these two outcomes are observed among Black, Hispanic, and White participants. Asians' interactions with Blacks, Blacks' interactions with Hispanics, and Whites' interactions with Asians and Hispanics are all positively related to intention to volunteer after college, whereas Blacks' interactions with Whites are negatively related to intention to volunteer after college.

Results for the race-related outcomes are displayed in Table 2. Interracial interactions are consistently associated with increased closeness to other races among Asians, Blacks, and Hispanics, but no significant effects are observed among Whites. Interracial interactions also positively predict relating to people from other races for all racial combinations, with the lone exception of Hispanics' interactions with Whites. Blacks' and Hispanics' interactions with all other racial

groups are related to greater ease in getting along with people from other races, and similar effects are apparent for Asians' interactions with Hispanics and for Whites' interactions with Blacks. Whites' and Asians' interactions with all other racial groups are negatively associated with blaming people of color for their life outcomes, and Blacks' interactions with Hispanics have the same negative relationship. Across all eight outcomes, 58 significant effects are in the expected and desired direction, whereas only one effect is significant in the opposite direction.

DISCUSSION

In sum, interracial interactions are consistently associated with improved college student outcomes; therefore, interactions with students from all racial backgrounds may be a powerful means for bolstering student growth. Moreover, Asians, Blacks, and Hispanics' interactions with White students are associated with similar outcomes as their interactions with students from racial minority groups. As noted earlier, belonging to a majority or minority group often leads to particular interpersonal concerns during intergroup interactions, and these concerns may be less pronounced in minority–minority interactions. Therefore, it seems that minority–minority interactions should involve less anxiety, which might allow for more meaningful interpersonal connections and greater personal growth. However, Gurin et al. (2002) has suggested that the discomfort and disequilibrium that sometimes results from interracial interactions is not antithetical to the learning process; instead, it is the wrestling with and resolving these concerns that ultimately contribute to learning and development.

Although some noteworthy similarities in the findings are apparent across groups, some key differences also exist. On average,

Asian students benefit more from interracial interactions than do students from other racial groups, regardless of whether the interactions are with Whites, Hispanics, or Blacks and whether the outcomes were measured via longitudinal assessments or self-reported gains. These findings may be explained, at least in part, by cultural differences in the role of interpersonal relationships. Relative to the dominant culture in the United States, many Asian cultures place a strong emphasis on close-knit social relationships as a means of defining oneself and as a source of well-being (e.g., Markus & Kitayama, 1991), so Asian students may be more strongly affected by interracial interactions and friendships than are other students. The two race-related outcomes in which interracial interactions have the strongest effect on Asians (closeness to other races and relating to people from other races) are interpersonal in nature, which is consistent with this interpretation. In addition, Asian students may be more likely to define what it means to be a “better person” and to be prepared for postcollege life in terms of interpersonal relationships and skills, which would help explain why interracial interactions have a positive impact on these outcomes only among Asians.

Other noteworthy patterns exist for predictors of a single outcome. First, interracial interactions are consistently related to decreases in blaming people of color for their life outcomes among Asians and Whites, but this is generally not the case among Hispanics and Blacks. Because Asian Americans are often stereotyped as the “model minority” group (e.g., Chou & Feagin, 2008), many Asians may not perceive that negative stereotypes regarding lack of financial or occupational success are targeted toward them. Some interactions with Black and Hispanic students may inform Asian and White students about the substantial structural barriers in achieving educational,

occupational, and financial success that many Blacks and Hispanics face. Second, interracial interactions are consistently related to increased closeness to other races among Asians, Blacks, and Hispanics, but not among Whites. One possible explanation may follow from Lerner’s (2009) qualitative study of White college students. She found that these students strongly valued “diversity” as an abstract concept and felt that diverse interactions led to an appreciation and knowledge of other cultures. However, the same students were quite reluctant to endorse diversity when it was framed in terms of racial inequalities. Thus, to the extent that White students frame interracial divides as a product of divergent attitudes toward social policies and inequality, they may not perceive themselves being close to other races, even when they interact frequently across race.

IMPLICATIONS AND CONCLUSIONS

This study demonstrates that the link between interracial interactions and college student outcomes varies substantially as a function of students’ own race. Thus, research that examines all participants simultaneously—or analyzes Asians, Blacks, and Hispanics as a single group of “students of color”—may mask important group differences in the impact of interracial interactions and other college diversity experiences. Datasets based on national student surveys often have sufficient sample sizes to perform separate analyses by race or to examine interaction terms for several racial groups; these conditional analyses should be conducted when possible.

The effects of interracial interactions are fairly consistent regardless of with whom the interaction occurs. Given the similarity in effects, the practice of combining interactions with multiple racial outgroups into a single “interracial interaction” variable seems justified.

Moreover, because interactions with all other racial groups are effective at promoting desirable outcomes, student affairs practitioners can foster intergroup interactions among students from any racial background(s) as a means of enhancing their learning, growth, and development.

Future research should further explore the conditions under which diversity experiences are most strongly related to student outcomes. For instance, the effect of interracial interactions may be associated not only with student demographics, but also with psychological or experiential factors, such as their openness to diversity, precollege exposure

to diversity, and even academic achievement (Bowman & Denson, 2012; Denson & Chang, 2010; Pascarella, Martin, Hanson, Trolian, Gillig, & Blaich, in press). A better understanding of these conditional effects can help higher education practitioners and administrators design diversity experiences that are optimally effective for promoting student growth, satisfaction, and persistence.

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