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## Spencer F. Charles '11 – Social Science

*The Effect of Extracurricular Activities on Friendship Diversity:*

*A Look into an Organizational Aspect of College Activities and Cross-Group Relationships*

### **Abstract**

With research supporting the benefits of racial diversity within the workplace and in academic settings, many colleges and universities have begun ramping up efforts to increase racial diversity within their student bodies. Gordon Allport's contact hypothesis theory (1954) suggests that increasing racial diversity alone does not increase friendship diversity, but that support for cross-group interactions by persons in authority helps to promote meaningful interactions across racial groups. This paper looks at the effects of extracurricular activities on friendship diversity of individuals at the college level by distinguishing between if an individual is selected by authority figures or if that individual self-selects into that activity, after controlling for personal characteristics and high school diversity. The results show a positive correlation between joining an extracurricular activity into which one is selected by members of authority, and that individual's friendship diversity. However when distinguishing between Whites and non-Whites, the results show that non-white students who are members of selective groups have increased friendship diversity, but Whites do not. As suggested by previous research, race, sex, and high school diversity are also strongly correlated with friendship diversity.

### **Introduction**

With research supporting the benefits of racial diversity within the workplace and in academic settings, many colleges and universities have begun ramping up efforts to increase racial diversity within their student bodies. The hope is that it will facilitate more interracial interactions between students, increase understanding across cultures, and diversify ideas and perspectives in a collegiate atmosphere. This idea is known as contact theory, and for the most part, previous research has found that campus diversity is positively correlated with friendship diversity (Fischer, 2008). However, one could argue that exposure alone is not enough to break down barriers and create long lasting cross-group relationships. For example, in colleges that are majority white, "in-group preferences intensify" for students who are the racial minority (Fischer, 2008). This suggests that when students are given the option to choose their friends, with all else equal, they self-select based on race (Moody, 2001). Prior research has found that spatial proximity defines the set from which friends can be chosen, and within that space, individuals tend to become friends most readily with those who are most like themselves (Fischer, 2008). This means that even within a diverse community, people will still gravitate towards individuals most like themselves, which will minimize cross-group friendships community-wide.

One solution is presented through Gordon Allport's contact hypothesis (1954), which suggests that in addition to campus diversity, organizational factors play an important role in the formation of interracial friendships. He stresses the importance of quality contact on prejudice reduction, the relative status equality of participants, the cooperation of actors, and the support for cross-group interactions by persons in authority. James Moody (2001) examines how organizational aspects of high schools, such as academic tracks and extracurricular activities may decrease opportunities for interaction across racial groups by "resegregating otherwise-integrated schools". However, he goes on to say that if the extracurricular activities also mix students by

race, then there could be a positive effect on the level of interracial friendship in a school (Moody, 2001). The purpose of this paper is to draw from the last part of Allport's contact hypothesis and examine the effects of extracurricular activities on friendship diversity at the college level. I distinguish between whether an individual is selected by authority (e.g. varsity sports) or self-selects into a group (race/ethnic interest group). I find that membership in an authority group is correlated with an increase in friendship diversity for non-Whites when controlling for personal characteristics like race and high school diversity, but not for Whites.

### **Hypothesis on Extracurricular Groups**

The majority of friendships are formed through multiple multilevel interactions, which are best formed during extracurricular activities where individuals have the opportunity to interact and work together in an informal setting. However, race is a salient issue even when it comes to certain extracurricular activities. For example, cultural groups promote a particular cultural identity and students who have interest or identify with that group are most likely to join. Examples of cultural groups are Black Student Union (BSU), Caribbean Students Association (CSA), Latin-American Student Association (LASO), and Korean-American Students Association (KASA). If the cultural focus of the group is an indication of the predominant racial group within the organization, then Blacks will have the largest racial representation in the Black Student Union, Hispanics will be most represented in LASO, and so on.

On the other hand, for varsity sports teams, one assumes that coaches choose their athletes based on their ability to compete and not on their racial identity. In this situation, the student avoids self-selection bias and the coach determines the racial composition of the team. The same would apply for Honors fraternities and sororities, in which one's academic performance or leadership positions qualify that individual for membership, and therefore is race-blind.

If cultural group participation is related to race, as mentioned above, then it could limit cross-race interactions for members of that group (Moody, 2001). Blau's (1977) macro-structural theory of intergroup relations points out, "as in-group size increases, out-group contact decreases" (Moody, 2001). Unless the students of very homogeneous groups actively mix with out-group students, the overall campus friendships across groups will decrease even though it is well integrated. In extracurricular activities where students, coaches, faculty, or administrators express favor for interracial contact, then interracial friendships should increase, and there will be higher levels of friendship diversity. Discrimination and racism are other factors that would determine how individuals choose friends and interact with students in the out-group, but this paper does not control for prejudice and perceptions on race.

### **Literature Review**

Stinebrickener & Stinebrickener (2006) looks at peer effects on academic interactions, academic performance, and social interactions at Berea College (a liberal arts college in Kentucky). This paper is an important contribution to college relationships because it surveys freshmen students at different stages in college. They found little evidence that a student's first year grade is influenced by unobservable characteristics of his/her roommate. Other papers have used this data to look deeper into interracial relationships in college.

In a follow-up study by Camargo et al. (2010) called *Interracial Friendships in College*, they look at interracial friendships at different stages of college and find that even though "sorting exists at all stages of college, black and white students are, in reality, very compatible as

friends” (Camargo et al., 2010). Freshmen students at Berea College are randomly assigned roommates, and the study takes a survey of the incoming class at Berea College and looks at the effect of roommate assignments and cross-group friendships. They conclude that “roommates of different races are as likely to become friends as roommates of the same race” and “white students who are randomly assigned black roommates have a significantly larger proportion of black friends than white students who are randomly assigned white roommates” (Camargo et al., 2010). This study suggests that homophily is present in all stages of college, but mandated cross-group interactions increase friendship diversity among students. A problem with this study is that they only looked at the interaction between blacks and whites (all non-blacks). Another problem is that students enter into college with varying exposure to other racial groups and prejudices about one another that could inhibit potential friendships. The authors note that friendships at subsequent stages of college, “the process by which a student encounters potential friends is no longer random” and creates a problem identifying a clear relationship between interracial interactions (Camargo et al., 2010). Lastly, the survey questions that were asked may have been unclear or encouraged participants to answer according to their perception of the purpose of the study.

Fischer (2008) provides another study that looks at interracial friendships in college. Fischer used data from the National Longitudinal Survey of Freshmen (1999-2003) “to examine the impact of college characteristics, social distance felt toward other groups, and precollege friendship diversity on the formation of interracial friendships in the first year of college” (Fischer, 2008). She found that precollege experiences affect interracial behavior and campus diversity is positively correlated with friendship diversity. She also found that “minorities have higher predicted friendship diversity than whites” (Fisher, 2008). Fischer builds off of important research on contact theory from Gordon Allport (1954). Her study furthers his research by observing precollege factors to account for selection bias, looking at multiple racial and ethnic groups, and predicting the out-group friendships. Some of the problems with this study are similar to the previous study by Camargo et al. (2010). First, the survey asked students to list how many friends out of 10 are from each racial/ethnic group. Students could have more or less than 10 friends. Second, we cannot be sure that friendship nomination is reciprocal as there is no definitive measurement for labeling one as a close friend. This study provides evidence that precollege factors do influence friendship behavior and that both minorities and whites benefit from increased campus diversity.

Hongyu Wang (2007) studies socioeconomic status and interracial relationship among adolescents. She finds that “socioeconomic status has little effect on whether adolescents choose an interracial partner except in the case of Hispanics” (Wang, 2007). However, she also discovers that higher socioeconomic status (SES) is positively correlated to blacks and Asians dating white partners in their SES. This study is interesting because college students come from various economic backgrounds, and it is interesting to know that SES is not a significant factor in interracial relationships, except in Hispanics and except when it comes to the choice of racial group.

Lastly, James Moody (2001) identifies school features that affect friendship segregation. He finds that simple exposure to other races does not promote integration, but certain organizational settings, like support from university policies, promote the positive effects of contact theory. His study looks at high schools and this paper will examine extracurricular activities at the college level.

## Research Method

My study will use the National Longitudinal Survey of Freshmen (NLSF)<sup>1</sup> from 1999-2003 to look at the effect of organizational aspects within extracurricular activities (selection method) of a student's primary extracurricular activities and their friendship diversity. The survey includes equal sized samples of 3,924 white, black, Asian, and Latino freshmen students from 28 selective colleges and universities and follows them over their 4 years of college. The data will come from Wave 1, 2, 4, and 5 of the NLSF with Wave 1 being the first semester in college, Wave 2 being the second semester, and Wave 3-5 are sophomore, junior, and senior year respectively. The primary focus will be on Wave 4 (junior year), which asks respondents to list their two primary extracurricular activities. They are asked to 1) indicate whether they are involved in extracurricular activities, 2) what are the functions of the groups, and 3) of what race/ethnicity are most of the group members. I will use this information along with data collected about the student's race, sex, high school diversity, whether the group is selective or not to examine their effect on college friendship diversity, which will serve as the dependant variable.

Friendship diversity is the likelihood that two randomly chosen friends will belong to different race/ethnic groups (Fischer, 2008). In order to calculate friendship diversity, students were asked how many of their 10 closest friends belong to each of the four racial groups. The friendship diversity measure, borrowed from Fischer (2008), will be created using the fractionalization index:

$$\text{Friendship Diversity Measure} = 1 - \sum(\text{Share}_g)^2,$$

where  $\text{Share}_g$  is the number of friends in each race group  $g$  out of total friend group. The measure ranges from 0, when the individual's friends are all from the same racial group, to 0.75, when friends are completely heterogeneous in a four-group case. Next, given that studies have shown the effect of pre-college influences on college friendships, I used a similar heterogeneity formula to create a high school diversity variable. For the primary independent variable, I use a dummy variable for determining whether an individual student is involved in a selective group for one of their two primary extracurricular activities. I grouped varsity/junior varsity sports, music/theater/arts, and honors fraternity and sorority into a dummy called *authority*. The rest were grouped into a *volunteer* dummy, which were used as the reference group. Participants who marked "Other" or who were not involved in an extracurricular group were dropped from the study.

## Results

I begin by controlling for the effect of being in one of the *authority* activities versus not being in an *authority* activity seen in Model 1 of Table 1. On average, those in *authority* extracurricular activities have a friendship diversity that is .011 points higher than those who are not. Next, I control for the effect of race on friendship diversity shown in Model 2. Since Whites are the majority race within most of the surveyed schools, I focus on White students in order to better gauge predictors of friendship diversity on the campuses. The assumption is that if White students are increasing in friendship diversity, then the campus is benefitting from more cross-

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<sup>1</sup> This research is based on data from the National Longitudinal Survey of Freshmen, a project designed by Douglas S. Massey and Camille Z. Charles and funded by the Mellon Foundation and the Atlantic Philanthropies.

group relationships between Whites and non-Whites. I add a dummy variable for white students, and I find that being a white student, versus a non-white student, is negatively correlated with friendship diversity and significant (-0.076). I then want to see the effect that race has on friendship diversity of students within *authority* activities in Model 3. Do Whites still have less friendship diversity than other races when they are in activities that are selecting based on non-racial factors? Surprisingly, adding an interaction between the *White* dummy and *authority* showed that Whites in *authority* groups have even lower friendship diversity than Whites not in those activities. They experience, on average, an additional 0.034 point decrease in friendship diversity. However, non-Whites in *authority* groups have more diverse friendships. This result is interesting because it would mean that being in an *authority* group is positively correlated to friendship diversity for non-Whites and not for Whites.

In the Model 4, I include high school diversity (*hsdiv*) because it proved to be an important pre-college predictor of friendship diversity in Fischer's study (2008). I find that on average, going from a high school with complete homogeneity to complete heterogeneity increases one's college friendship diversity by .08 points. *Authority* now has a greater effect on friendship diversity for non-Whites. For an individual who is in a selective group, on average, their friendship diversity increases by .021 points.

Finally, I look at other pre-college factors, including sex and race, to see its effect on friendship diversity in Table 2. All of these variables are significant and they each have a positive effect on friendship diversity except for the female indicator. On average, being a female lowers friendship diversity by .03 points relative to males. With White as the reference group, being Hispanic has the greatest effect on friendship diversity with Asians coming in second.

## Conclusion

This paper expands on Allport's contact theory hypothesis, which states that campus diversity alone does not increase friendship diversity even though research has found positive correlations between the two. The results show that non-white students who are members of selective groups have increased friendship diversity, but Whites do not. The individual's race, sex, and high school environment are still the driving factors behind one's friendship diversity level.

Given the limitations of the survey, there are a few areas I would like to address for further exploration. First, as seen in previous studies, there is a restriction on the closest friends a student is supposed to report. They are asked to "think about the 10 closest friends they have made since coming to college", therefore they could have more than 10 friends, or there is a hidden correlation between high school friend diversity and college friend diversity. Another problem is that in the order of questioning, the question about 10 closest friends comes directly after the section called "Perceptions of Prejudice on Campus", which may orient a student to falsely report a more diverse friend group. There is also no way of checking if the relationships are reciprocal.

Second, I did not have the racial makeup of each extracurricular group in which the individual was involved. Indeed, knowing the race that had the most representation in each group was helpful in providing insight into predicting one race's choice to participate in that particular type group over others. However, one cannot see the effect of increasing group heterogeneity on friendship diversity. In addition, the *authority* label on an extracurricular group assumes that the group is somehow more diverse, but that information cannot be drawn from the survey data. This is to say that just because an honors fraternity is selective, does not mean leaders are not

discriminating based on race or that students who choose to apply use race as a way of achieving self-selection bias.

Finally, my categorization of extracurricular groups into selective and voluntary may not have been accurate. For example, music and theater groups may be not be selective at all, except when it comes to casting roles in productions. Many students marked “Other” for type of group, which may have been either selective or voluntary membership, but were not included in the data.

In conclusion, this paper is intended to shed light on the important role that leaders play in achieving a higher level of cross-group interactions and friendships. Groups that attract a homogenous population based on student’s interests and cultural ties need to be even more aware that their members have a higher risk of friendship segregation. Camargo’s study (2010) finds that students of different races are compatible. In the Berea College example, it required the school’s implementation of randomly assigned roommates to increase interracial relationships. Diversity is an issue that must be addressed from different levels, in which students do not only see diversity, but they seek it within their friends and extracurricular groups.

## Appendix

### Summary Statistics

Summary Statistics	
Students	3676
Female	58.51%
Male	41.49%
Asian	24.81%
Black	27.01%
Hispanic	23.10%
White	25.08%
Average Frienddiversity	0.379
Average HSdiversity	0.411
# of students in selective group	72.40%
# of students in voluntary group	92.20%

Table 1

Effect of Authority				
	Model 1	Model 2	Model 3	Model 4
Variable	Coefficient			
Friendship Diversity	Whites			
Intercept <i>(Std deviation)</i>	0.371* (0.006)	0.390* (0.007)	0.384* (0.007)	0.370* (0.011)
Authority	0.011 (0.008)	0.012 (0.008)	0.020* (0.009)	0.021* (0.009)
White		-0.076* (.009)	-0.053* (0.015)	-0.051* (0.015)
White*Authority			-0.034* (0.018)	-0.034 (0.018)
HS Diversity				0.080* (0.017)
Female				-0.031* (0.008)
*Significant at 5% level				

Table 2

Effect of Race & Sex	
Intercept	0.337* (0.008)
Female	-0.028* (0.007)
White	<i>(ref)</i>
Black	0.034* (0.010)
Asian	0.085* (0.010)
Hispanic	0.121* (0.011)
*Significant at 5% level	

### List of Colleges Included in NLSF Study

Barnard College	Smith College
Bryn Mawr College	Stanford University
Columbia University	Swarthmore College
Denison College	Tufts University
Emory University	Tulane University
Georgetown University	University of California, Berkeley
Howard University	University of Michigan, Ann Arbor
Kenyon College	University of North Carolina, Chapel Hill
Miami University	University of Notre Dame
Northwestern University	University of Pennsylvania
Oberlin College	Washington University (St. Louis, MO)
Penn State University	Wesleyan University
Princeton University	Williams College
Rice University	Yale University

### List of Extracurricular Activity Categories

- Varsity or junior varsity sports
- Intramural sports or sports club
- Social (fraternity or sorority)
- Political/Social awareness, including environmental
- Social service outreach
- Career development group
- Religious group
- Music, Arts, or Theater group
- Foreign language group
- Race/Ethnic interest
- Sex or gender issues
- Gay/Lesbian/Transgendered issues
- Honors fraternity or sorority
- Other type of group

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