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Are Black Students Punished for “Acting White”?: Race, Academic Achievement, and Friendship Choices

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Introduction

Although disparities in black and white academic achievement in the United States have declined in the last 30 years, a significant gap remains (Gamoran 2001; Jencks and Phillips 1998; Kao and Thompson 2003). In order to explain this gap, many scholars argue that black students associate high educational achievement with conformity to the values of white students (Fordham and Ogbu 1986; Ogbu 1978). Black students who are academically successful or engage in behaviors associated with academic success—such as taking AP classes, doing homework, or participating in class—are considered by their black peers to be “acting white” (Neal-Barnett 2001). In order for their black peers to accept them, black students reject the pro-education norms associated with white culture, thereby reducing their overall academic achievement. The result is a gap in achievement between blacks and whites.

The “acting white” hypothesis predicts a rejection of high-achieving black adolescents by their black peers. In this paper, I assess this hypothesis. Using data from the National Longitudinal Study of Adolescent Health (Add Health), I model adolescents’ friendship group choices, taking into account their possible alternative choices. Overall, my results provide mixed support for the “acting white” hypothesis.

My results suggest that in schools with small proportions of black students, low and average achieving black adolescents prefer lower achieving friendship groups, whereas high-achieving black adolescents prefer high-achieving friendship groups. Because high-achieving black students choose each other as friends and lower-achieving black preferences mirror those of lower-achieving non-blacks, these results are inconsistent with the “acting white” hypothesis. In schools with large proportions of black students however, I find that both high and lower-achieving black students prefer lower-achieving friendship groups to higher-achieving friendship

groups. Unlike in predominantly non-black schools, high-achieving black students are less likely to be chosen as friends by all students, even fellow high-achievers. I also find that non-black students in schools with large black populations are more likely to choose lower-achieving friendship groups compared to non-black students in schools with few black students. This burden associated with high-achievement may provide an important explanation for lower achievement levels of black students in predominantly black schools. Furthermore, I show that this burden extends beyond the black population in a school and has significant effects on *all* students.

Background

Ogbu (1978) introduced the idea that there exists an oppositional culture among blacks in the United States. He argued that as a result of the legacy of slavery and persistent discrimination, blacks perceive a ceiling to their educational and occupational opportunities. This perceived ceiling discourages academic effort and achievement because effort and achievement are unlikely to payoff in the future. The consequence of this oppositional culture is that blacks who are academically or occupationally successful are disparaged by their black peers for “acting white” or selling out.

Although the existence of an oppositional culture is highly contested, many scholars argue that this theorized burden associated with “acting white” has severe negative consequences for black adolescents. They argue that black adolescents who engage in behaviors associated with “acting white” such as taking AP classes, doing homework, or participating in class (Neal-Barnett 2001) are shunned by their black peers, leading them to be less popular and to have

fewer friends overall. The social isolation of high-achieving black students then further discourages high-achievement among this population.

Two possible versions of this theory exist. A lenient version would require merely a rejection of high-achieving black students by lower-achieving black students. A more rigid version would require a rejection of high-achieving black students by *both* high and lower-achieving black students. The latter interpretation of this theory could explain changes in achievement among both high and lower-achieving black students. High-achieving black students would respond by decreasing their level of achievement while lower-achieving black students would be discouraged from achievement. The former interpretation could explain lower levels of achievement among lower-achievers but could not explain any change in achievement among high-achievers. High-achievers would experience little cost to their high achievement if lower-achievers did not want to be their friends but high-achievers did. For this reason, I engage the more rigid interpretation throughout this paper.

Research on Oppositional Culture and “Acting White” Hypothesis

Although many researchers have documented this phenomenon with qualitative and regional data¹ (see for example, Ferguson 2001; Horvat and Lewis 2003; Tyson, Castellino and Darity 2005), it is critical to expand our current understanding with nationally representative data. Oppositional culture is often used to explain national trends including the gap in black and white achievement. If this theory is used to explain national trends, then we need to know if it exists on a national level. At this time, only three papers attempt to document the existence of a burden associated with “acting white” using nationally representative data. These papers are discussed below.

¹ These analyses are small sample analyses that cannot be generalized beyond the study population.

Using regression analysis and self-reported measures of popularity and academic achievement, both Ainsworth-Darnell and Downey (1998) and Cook and Ludwig (1998) study the relationship between academic achievement and race, on the one hand, and self-reported popularity on the other. Contrary to the “acting white” hypothesis, they find that high-achieving black students are as popular as or more popular than both high-achieving whites and lower-achieving blacks. At first glance, these results contradict the argument that blacks under-achieve in order to avoid social punishment. These results, though, cannot differentiate between popularity among blacks, popularity among whites, and popularity among the whole school population. It is consistent with these results that high-achieving blacks may be *both* popular among white students *and* socially rejected by their black peers. If this were so, then high-achieving black students would still suffer significant social costs, on account of their high achievement, just as the “acting white” hypothesis predicts. Furthermore, these analyses use self-reported measures of popularity. If high-achieving black students tend to over-estimate their popularity in school, using self-reports will mask the negative effect of being a black high-achiever on popularity.

In order to correct for the bias introduced by using self-reported popularity and to differentiate between same-race and cross-race popularity, Fryer and Torelli (2005) use actual friendship nominations to measure adolescents’ popularity among students of the same race. Regressing students’ academic achievement and race on their same-race popularity, they show that the relationship between popularity and academic achievement is different for different racial groups. While high-achieving white students are the most popular students among their white peers, high-achieving black students have on average 1.5 fewer same-race friends than high-achieving white students. Middle-achieving black students are the most popular among

their same-race peers. Although these results are weakened by the inclusion of school racial and academic composition, the basic finding that high-achieving black students are less popular than high-achieving white students remains significant. Fryer and Torelli (2005) treat these results as support for the “acting white” hypothesis.

Although Fryer and Torelli (2005) make great strides forward by using friendship nominations rather than self-reported popularity, their approach does not make a distinction between who is choosing whom. As a result, their results could be interpreted in two importantly different ways: 1) Low-achieving black students might reject high-achieving black students because they do not approve of their “acting white”. The consequence of this rejection would be that high-achieving black students are less popular among their black peers. 2) Alternatively, high-achieving black students might reject low-achieving black students because they do not approve of their low achievement. Because fewer black students are high-achieving, high-achieving black students would then be less likely to be friends with black students. As a result of this preference and the options available for friendships, high-achieving black students would be less popular among their black peers. In scenario 2), high-achieving blacks are not burdened by “acting white”; instead, *they* are rejecting their low-achieving black peers. Both scenarios are consistent with Fryer and Torelli’s results but lead to very different conclusions regarding the potential stigma attached to high achievement among black adolescents.

This paper extends prior research on the “acting white” hypothesis by taking seriously the role of choices and preferences in adolescent friendship formation. Using discrete-choice analysis to model students’ friendship group choices, I can account for and separate students’ preferences for friendship groups from students’ opportunities for friendships.² Only by

² Several papers study adolescents’ friendship preferences. This research focuses primarily on the effect of race and ethnicity on friend choice, and shows that adolescent friendships are organized by race and racial preferences vary

attending to these complexities, can we distinguish between the two scenarios considered above and determine whether there is in fact a burden associated with “acting white”.

Hypotheses Implied by the “Acting White” Hypothesis

Throughout this analysis, I separate adolescents’ *opportunities* for different friendship groups from their *preferences* for types of friendship groups. In particular, I assess adolescents’ preferences for race and academic composition in their friendship group, net of their opportunities to choose friendship groups with particular race and achievement compositions. In order to determine whether high-achieving black students are socially punished for their high achievement, I propose a number of hypotheses.

If black students are burdened by “acting white”, lower-achieving black adolescents should be more likely to choose low-achieving friendship groups over high-achieving friendship groups. Furthermore, high-achieving black students should similarly be more likely to choose low-achieving friendship groups over high-achieving friendship groups. These expectations result in hypotheses 1 and 2 below.

H1: Lower-achieving black students are more likely to choose low-achieving friendship groups than high-achieving friendship groups.

H2: High-achieving black students are more likely to choose low-achieving friendship groups than high-achieving friendship groups.

Although consistent with the “acting white” hypothesis, these behaviors may be characteristic of high or low-achieving individuals in general rather than high or low-achieving

by school racial composition (Hallinan and Williams 1989; Moody 2001; Mouw and Entwisle 2006; Quillian and Campbell 2003; Zeng 2004). However, this work is limited in two respects: 1) it focuses exclusively on racial preferences for friends and 2) looks at preferences for individual friends rather than groups of friends. Friendship choices are complicated. Individuals base friend decisions on combinations of characteristics. Individuals also choose many friends and these choices are interdependent. If adolescents have different preferences for the characteristics of different friends we will not accurately represent preferences when looking at individual friends. This paper extends prior research on friend preferences by: 1) modeling joint preferences for academic achievement and race, and 2) modeling friendship *group* preferences rather than preferences for individual friends.

black students. For example, a preference on the part of lower-achieving black students for low-achieving friendship groups may result exclusively from their level of achievement and not their race. In order to confirm this hypothesis, comparisons need to be made with non-black adolescents.³ If black students are burdened by “acting white”, lower-achieving black adolescents should be more likely to choose low-achieving friendship groups than non-black lower-achieving adolescents. Similarly, high-achieving black adolescents should be more likely to choose low-achieving friendship groups than high-achieving non-black adolescents. These expectations result in hypotheses 3 and 4 below.

H3: Lower-achieving black students are more likely to choose low-achieving friendship groups than lower-achieving non-black students.

H4: High-achieving black students are more likely to choose low-achieving friendship groups than high-achieving non-black students.

The oppositional culture hypothesis is neutral with respect to the role that school racial composition should have on friendship group choices. In order for this theory to explain differences in national trends in academic achievement, oppositional culture needs to be pervasive among black students in all schools. Still, I expect oppositional culture to be stronger in schools with a high proportion of black students. The concentration of a population of students at risk should enforce and strengthen oppositional norms.

In this paper I model the joint effects of friendship group racial and academic characteristics on friendship group choice. I describe adolescents’ preferences for race and academic achievement in their friends, accounting for their opportunities to create friendship groups with different characteristics. This analysis allows me to disentangle the potentially

³ Although previous research deals with the black/white dichotomy, I will focus on the black/non-black dichotomy. In future research I hope to expand this work to other race/ethnic groups but in order to maintain clarity I restrict my analysis to two categories. I will test results for sensitivity to the inclusion of other races in the non-black category but I expect results to be stronger when limited to whites and blacks rather than weaker.

different and contradictory preferences of high- and lower-achieving black and non-black adolescents. Only when such preferences are disentangled can we determine whether there is in fact a burden associated with “acting white”.

Data

This analysis uses data from the National Longitudinal Study of Adolescent Health (Add Health), an ideal dataset for studying friendship choice. It is the only nationally representative survey of adolescents and their complete in-school friendship groups. Add Health surveyed seventh- through twelfth-grade students in 144 sampled schools in 80 U.S. communities between September of 1994 and April of 1995 (N=89,940). Nearly all students in participating schools completed the in-school survey, containing basic socio-demographic information including academic achievement (self-reported grades) as well as friendship nominations. Each student was asked to nominate his/her five closest male friends and five closest female friends. Nominations were allowed to include any friend, whether or not that friend attended the respondent’s school. All students participating in the in-school survey were linked to their nominated in-school friends, providing a unique opportunity not only to consider the relationship between race, academic achievement, and friendships but also to formally model adolescents’ friendship group choices and the characteristics that are most important to their choices. Because data are collected only for in-school friends, my analysis is limited to adolescents’ in-school friendships and their preferences for in-school friends (Bearman, Jones and Urdy 1997).

Methods

I model adolescents’ friendship group choices using a discrete-choice analysis. Although traditionally used in economics to study transportation, housing, and consumer choice problems,

discrete choice models extend nicely to the case of friendship choice. This method of analysis allows me to compare an adolescent's chosen friendship group to the friendship groups that the adolescent could have chosen but did not choose. This set of chosen and non-chosen friendship groups represents an adolescent's friendship group opportunities. For individual i , the observed utility V of friendship group alternative n is a function of the individual's characteristics X and the friendship group alternative's characteristics Y , or:

$$V_{in} = \mathbf{a}_n + X_{in} \mathbf{b}_n + Z_i Y_n \quad (1)$$

The probability \mathbf{p} of choosing friendship group alternative n by individual i is:

$$\mathbf{p}_i(n|\mathbf{D}) = \frac{\exp[V_{in}]}{\sum_{m \in \mathbf{D}} \exp[V_{im}]}, \quad n \in \mathbf{D} \quad (2)$$

where \mathbf{D} is the set of friendship group choices, including the chosen alternative (Ben-Akiva and Lerman 1985; McFadden 1978). The friendship group is the unit of analysis and all models condition on the respondent. The model therefore includes multiple observations for each respondent and the additive effects of all individual characteristics on friendship group choice are netted out of the model.

In this case, the set of possible friendship group choices is defined as all possible combinations of up to five male friends and five female friends within each student's school.⁴ Because the size of the choice-set increases more than exponentially with the school size, including each individual's complete choice-set in the model is intractable.⁵ I therefore sample a set of possible friendship groups to represent each individual's choice-set.

⁴ I limit friendship group size and gender composition in this way because of the dataset design. Nominated friendship groups can contain at most five males and five females.

⁵ Schools in Add Health vary in size from 25 students to 2,551 students. In the smallest school there are 3,774,680 possible friendship groups of up to 10 students (five girls, five boys). In the largest school there are 7.85×10^{26} possible friendship groups.

Acquiring unbiased estimates from a sampled set of non-chosen alternatives depends on two important assumptions: 1) that the relative choice probabilities of a given set of alternatives is independent of still other alternatives (the independent of irrelevant alternatives assumption), and 2) that actors have full knowledge of all choice alternatives. Although friendship choice shares some features with more traditional choice problems, friendship choices are significantly more complicated. Friendships are dependent on the preferences of the chooser as well as the preferences of the chosen individual. This characteristic of friendships makes it difficult to accurately specify an individual's choice-set and therefore likely violates assumption 2). If choice alternatives that an individual does not consider are included in their choice-set and these alternatives have a high probability of being chosen if they were known to the individual, behavior could be dramatically misrepresented. As the probability of selecting these erroneously included alternatives falls, the bias introduced from their inclusion falls as well (Parsons and Kealy 1992).

One way to decrease the probability of including unknown alternatives in the sampled choice-set is to increase the sample size of the sampled alternatives. I sample the largest number of non-chosen alternative choices that is allowed by the limitations of my computer. I am currently limited to a sample of 30 non-chosen alternatives⁶. As a result, preferences for racial composition of friendship groups are likely biased when disaggregated by school racial composition. Flashman (2008) provides an in depth discussion of these problems as well as a demonstration of the bias introduced in this complicated case of friendship choice.

Assumption 1, that choices are independent of irrelevant alternatives, is violated when models include identical alternatives (Ben-Akiva and Lerman 1985; McFadden 1978). Although

⁶ Future versions of this paper will increase this sample size of non-chosen alternatives to 100.

each friendship group alternative in a choice-set is unique in its members, each friendship group is not necessarily unique in its characteristics. Two friendship groups in a choice-set with no overlapping members but whose racial composition and academic achievement is the same are technically identical alternatives but treated in the model as distinct options, violating the IIA assumption. In order to correct for this violation, I include the log of the inversed number of duplicates d with the same composition as friendship group n in the choice-set as an offset, resulting in equation 3.

$$p_i(n|\mathbf{D}) = \frac{\exp\left[(V_{in}) + \ln\left(\frac{1}{d_n}\right)\right]}{\sum_{m \in \mathbf{D}} \exp\left[(V_{im}) + \ln\left(\frac{1}{d_m}\right)\right]}, \quad n \in \mathbf{D} \quad (3)$$

Whether friendship groups are classified as duplicates depends on the model. A friendship group is considered a duplicate if it has the same racial and academic composition as another friendship group that appears in the choice-set. My final model predicts friendship group choice, correcting the model for duplicates within the choice-set.

This analysis assumes that all individual characteristics are exogenous to friendship group characteristics and are fixed. Race satisfies this assumption. The racial characteristics of adolescents are fixed and not affected by their friendship groups. Academic achievement however, is not fixed. Adolescents' academic achievement often changes across time and may be affected by their friendship groups. In this paper, I am interested in determining whether there is a burden associated with "acting white" for black adolescents in the United States. For this to be true, we need to observe significant differences in the levels of academic achievement between high-achieving black individuals and their preferred friendship groups. However, research on friend effects suggests that friends influence one another to be more similar. As a

result, this analysis may overstate the preference for similarity in friendship groups, and therefore be more likely to reject the “acting white” hypothesis. In other words, this paper provides conservative estimates of the existence of a burden associated with “acting white”.

This paper also assumes that nominated friends are students’ preferred friends. In reality, friendships are much more complicated. Ben may prefer Michael as a friend, but because Michael does not want to be friends with Ben, Ben must choose another friend, Martin. This paper treats Martin as Ben’s preference when in fact Michael is Ben’s preference. One way to deal with this problem is to exploit the fact that respondents’ friendship nominations are not required to be reciprocated. In fact, approximately 60% of friend nominations in the data are not reciprocated. Reciprocated friendships may be different than unreciprocated friendships. Reciprocated friendships may represent students’ actual friends, whereas unreciprocated friendships may represent students’ desired friends. In order to better capture adolescents’ actual preferences, I model preferences based on all nominated friends, then on only their reciprocated friendships, and finally only on their unreciprocated friendships. Overall, results are strongest in models that include only unreciprocated friendships but all models generate substantively consistent results. I show models that include all friendship nominations.⁷

Measures

In this analysis I study individuals and their chosen and sampled in-school friendship groups. Each individual has two characteristics, her race and her level of academic achievement. Although a number of studies show variation in preferences across more detailed racial and ethnic categories, the most extreme preferences are always for black adolescents. For reasons of

⁷ Estimates from models including only reciprocated friends and only unreciprocated friends are available from the author upon request.

simplicity, I separate students into four categories: black high-achievers, black lower-achievers, non-black high-achievers, and non-black lower-achievers. Students whose self-reported grade point average (GPA) is 3.5 or greater (on a 4 point scale) are treated as high-achieving⁸. In a sample of 70,371 adolescents⁹, 60% are non-black and lower-achieving, 25% are non-black and high-achieving, 13% are black and lower-achieving, and 2% are black and high-achieving.

Friendship groups may include up to ten friends (not including the respondent), five male friends and five female friends¹⁰. Friendship groups can be as small as one friend. Students who nominate zero in-school friends are included in the analysis¹¹ and their choice of zero friends is compared to the other possible friendship group choices in the school. On average respondents nominate 5.2 in-school friends. Friend nominations are not required to be reciprocal. In order to measure the academic and racial composition of both the nominated and sampled friendship groups, I calculate the percent black and the average GPA in the friendship group from friends' (and possible friends') self-reported race and grades. Friendship group academic composition is divided into four categories: less than 2.5, between 2.5 and 3.0, between 3.0 and 3.5, and 3.5 and

⁸ Respondents report their average grade in English, math, science, and social science. I calculate a GPA from these self-reported grades by assigning grade points to each average grade and dividing by four. A=4, B=3, C=2, D=1, and F=0. Actual grades taken from respondents' high school transcripts are available for a subset of the in-school survey respondents. Because these transcript data exist only for a subset of the survey sample these cannot be used in this analysis to describe adolescents' level of academic achievement.

⁹ I exclude respondents who are missing information on individual race, gender, age, grade, and achievement.

¹⁰ In this paper, I do not distinguish friendship nominations by gender and I do not allow preferences for friendship groups to vary by gender. In real life, friendships in adolescence are more likely to occur between same gender individuals. Because females generally have higher levels of achievement, and pressures to conform to an oppositional culture may be different and less for female students, the proceeding results may vary significantly by gender. Future work will test these potential interactions.

¹¹ In-school survey participants nominated three types of friends: friends who attended their school and participated in the in-school survey, friends who attended their school but did not participate in the in-school survey, and friends who did not attend the school. Approximately 15% of in-school survey respondents nominated zero friends, while 36% nominated ten friends. If I limit nominated friends to students in the school, the number of students nominating zero friends increases to almost 22%, while the number of students nominating ten friends falls to just over 12%. Because I only have data on in-school friends who also participated in the in-school survey, the description of friendship groups is limited to in-school friendship groups. A small number of students appear on the school roster but did not participate in the in-school survey. Limiting friends to students who attend the same school and also participated in the in-school survey increases the percent of students nominating zero friends to 24% and decreasing the number of students nominating ten friends to just fewer than 3%. This analysis treats un-matched in-school friends as friends who did not attend the school.

greater¹². Friendship group racial composition is divided into three categories: 0% black, 1-50% black, and 51-100% black¹³. The percent distributions of friendship groups across these categories and individual characteristics are summarized in table 1.¹⁴

Results

This paper models adolescents' friendship group choices. In order to assess the “acting white” hypothesis outlined above, I focus on how the academic and racial characteristics of friendship groups affect adolescent friendship group choices and how these choices differ by individuals' academic and racial characteristics.

Table 1 presents the basic descriptive differences between high and lower-achieving black and non-black adolescents. These descriptive statistics provide mixed evidence for oppositional culture. On the one hand, black students choose friendship groups with fewer high-achieving students on average, compared to non-black students. On the other hand, high-achieving black students have more friends on average than lower-achieving black students, and friendship groups with similar proportions of black students. These numbers do not control for individual or friendship group characteristics, or adolescents' opportunities for friendships. The patterns observed above could be the result of the opportunities available to students rather than

¹² I also ran models using an alternative measure of friendship group academic achievement: the percent of the friendship group that are high-achieving. I then separated this measure into 3 categories: 0% high-achieving, 1-50% high-achieving, and 51-100% high-achieving. Results were substantively the same with this alternative specification of friendship group academic achievement, though somewhat muted.

¹³ I ran this analysis dividing racial composition into four rather than three categories: 0% black, 1-20% black, 21-50% black, and 51-100% black. The general story was the same regardless of whether I measured racial composition using four or three categories. Although results were clearer in the four category models, I present the three category models in this analysis because the data were stretched too thin across the two middle categories.

¹⁴ All proceeding analyses were also run using continuous measures of friendship group academic achievement and racial composition. These models provided worse fits to the data than did the categorical measures of these variables according to likelihood ratio tests and BIC.

their true preferences. The following models compare adolescents' friendship group choice with the choices they could have made to account for their friendship group opportunities.

Table 2 summarizes the series of models estimated and their goodness-of-fit. The best fitting model—model 12—includes measures of the friendship group racial composition and academic achievement interacted with individual race and academic achievement. Friendship group racial composition is also interacted with friendship group academic achievement and individual race. Including school racial composition interactions in model 12 provides a statistically significant better fit to the data according to both likelihood ratio tests and BIC. In other words, the effects of friendship group academic and racial composition on adolescents' friendship group choices varies significantly by the racial composition of the school they attend. I present parameter estimates from model 12 including all schools, schools that are less than 20% black, schools that are between 20 and 50% black, and schools that are more than 50% black in table 3.

Table 4 presents the predicted probabilities calculated from the parameter estimates from table 3 of friendship group choice by the academic and racial composition of friendship groups. Given a friendship group that is 0% black with an average GPA that is less than 2.5, lower-achieving non-black students have a .26 probability of choosing the friendship group compared to a .135 probability among high-achieving non-black students, a .134 probability among lower-achieving black students, and a .097 probability among high-achieving black students.

Table 4 shows three important patterns. First, black students prefer black friendship groups whereas non-black students prefer non-black friendship groups. This pattern does not vary across levels of individual academic achievement. Among non-black lower-achieving students, 75% of predicted friendship group choices fall into the 0% black category, compared to

78% among non-black high-achieving students. Among both high and lower-achieving black students, approximately 73% of predicted friendship group choices are between 51 and 100% black. This pattern varies by school racial composition; black students in predominantly black schools show a much stronger preference for non-black friendship groups than black students in schools with very few black students¹⁵.

Second, lower-achieving black students' preferences for academic achievement in friendship groups mirror non-black lower-achieving preferences for academic achievement. Both show a strong preference for friendship groups with average GPAs less than 2.5 and extremely low probabilities of choosing the highest achieving friendship groups. As schools become more black, these preferences for low-achieving friendship groups among both black and non-black lower-achieving individuals increase.

Third, high-achieving black students' preferences for academic achievement are similar to, but not the same as, high-achieving non-black students. Both show a preference for friendship groups with GPAs between 3.0 and 3.5 over friendship groups with GPAs between 3.5 and 4.0. However, non-black high-achieving students are more likely to choose the highest achieving friendship group compared to high-achieving black students (compare .241 and .103 in table 4). Across school racial compositions, patterns become more complex and less clear. As the percent black in a school increases, preferences for lower-achieving friendship groups among both black and non-black high-achievers increase, though black students still show a large probability of choosing a friendship group with an average GPA between 3 and 3.5.

Evaluating the Oppositional Culture Hypothesis

¹⁵ This result may be a consequence of the bias introduced by sampling an individual's non-chosen friendship group alternatives. Current models include a choice-set of size 31. In models with smaller choice-sets, these preferences among black students for non-black friendship groups were stronger and declined as I increased the size of the choice-set. This work leads me to believe that these numbers are still somewhat biased in the positive direction.

Using the parameter estimates in table 3 and the predicted probabilities in table 4, I evaluate the hypotheses proposed earlier. The first hypothesis states that lower-achieving black students should be more likely to choose lower-achieving friendship groups than higher-achieving friendship groups. I assess this hypothesis by testing whether the coefficients for lower-achieving black students in table 3 associated with academic achievement are significantly different from one another and the coefficients for lower-achieving friendship groups are significantly greater than coefficients for higher-achieving friendship groups. Across all schools, Wald tests suggest that for friendship groups between 51 and 100% black, lower-achieving black students have a significant positive preference for friendship groups with average GPAs that are less than 3.0 ($p < .05$) but are equally likely to choose groups that fall between 2.5 and 3.0 and groups with an average GPA less than 2.5. These results vary by school racial composition such that adolescents in schools with small numbers of black students have stronger preferences for middle achieving friendship groups. Overall these results provide support for hypothesis 1. The “acting white” hypothesis suggests that black students should reject high-achieving students in favor of lower-achieving students and I show that lower-achieving black students prefer lower-achieving friendship groups to high-achieving friendship groups across the board, although this preference is less extreme in schools with small black populations.

The second hypothesis states that high-achieving black students should be more likely to choose lower-achieving friendship groups than high-achieving friendship groups. This hypothesis is not entirely supported by the data. Given friendship groups that are between 51 and 100% black, high-achieving black students are significantly more likely to choose middle achieving friendship groups with average GPA between 2.5 and 3.5 ($p < .05$) compared to the lowest achieving friendship groups. These students are also significantly more likely to choose

these middle-achieving friendship groups than the highest achieving friendship groups. On the one hand, high-achieving students are rejecting the highest-achieving students as friends; on the other hand they are also rejecting the lowest-achieving students. This pattern only occurs in schools with large black populations. In schools that are less than 50% black, high-achieving black adolescents prefer friendship groups with average GPAs above 2.5 to those with GPAs less than 2.5 but there is no significant difference in their preferences for friendship groups with GPAs at or above 2.5.

Although I have presented evidence in support of the “acting white” hypothesis, these results may be due to differences in preferences between high- and lower-achieving adolescents rather than differences in preferences between high- and lower-achieving *black* adolescents. I therefore compare black students’ friendship group choices to those of non-black students. If black preferences diverge from non-black preferences within categories of academic achievement the “acting white” hypothesis may be supported by this analysis, particularly in schools with large black populations.

Hypothesis three compares lower-achieving black students’ probability of choosing lower-achieving friendship groups with lower-achieving non-black students’ probability. According to this hypothesis lower-achieving non-black adolescents should be less likely to choose lower-achieving friendship groups than lower-achieving black adolescents. Non-black lower-achieving adolescents are significantly less likely to choose friendship groups with average GPAs greater than 2.5 than friendship groups with average GPAs less than 2.5, given friendship groups that are 0% black. As a friendship group increases in average academic achievement, preferences decline. This preference among lower-achieving non-black adolescents is significantly smaller than the preference among lower-achieving black

adolescents. When translated into predicted probabilities, lower-achieving black adolescents have a .423 combined probability of choosing a friendship with average GPA below 2.5 compared to a .338 probability among non-black adolescents. When separated by school racial composition, preferences for the lowest achieving friendship groups among lower-achieving students increase as the percent black in a school increases. In schools with small black populations, black and non-black preferences are not significantly different (according to Wald tests). As the percent black in a school increases, black and non-black preferences diverge, such that black students are more likely to prefer lower achieving friendship groups than non-black lower-achieving students. Overall, this evidence supports hypothesis 3 with a caveat that this result is dependent on school racial composition; lower-achieving black adolescents are more likely to prefer lower achieving friendship groups than lower-achieving non-black adolescents in schools that are more than 50% black.

Finally, hypothesis four states that high-achieving black students should be more likely to choose lower achieving friendship groups than high-achieving non-black students. Based on predicted probabilities from table 4, high-achieving black students are less likely to choose the highest achieving friendship groups compared to high-achieving non-black students, and more likely to choose lower-achieving friendship groups. And although all high-achieving students are less likely to choose high-achieving friendship groups in schools with both small and large black populations, in contrast to schools that are between 20 and 50% black, high-achieving black students are always less likely to choose high-achieving friendship groups than high-achieving non-black students. Overall, these results support hypothesis 4.

This analysis provides some support for the oppositional culture hypothesis but with qualification; oppositional culture appears strongest in schools with large black populations.

Lower-achieving black students show a strong preference against friendship groups that are high-achieving in all schools. This negative preference is greater than that of lower-achieving non-black students *only* in schools that are more than 50% black. In contrast, high-achieving black students show a significantly smaller preference for high-achieving friendship groups compared to high-achieving non-black students. In schools with small black populations however, this difference is smaller than in schools with large black populations. Further support is provided by the overall trends in friendship group choice in schools with large black populations. All students—black and non-black—are less likely to choose high-achieving friendship groups in these schools, suggesting that the oppositional culture extends beyond the black population to the entire population of the school. Together, these results suggest that in certain environments, the oppositional culture hypothesis holds but that it may be incorrect to think of it as race-specific phenomenon, though its effects are magnified among the black population.

Discussion

In this analysis, I provide mixed evidence that high-achieving black adolescents are socially punished by their peers for their high achievement. Using friendship nominations and a sample of possible in-school friendship groups not chosen by the respondent, I model adolescents' friendship group choices. Through the methods employed, I account for differences in adolescents' friendship opportunities and separate these opportunities from their preferences. The best fitting model allows preferences to vary by school racial composition and shows significant differences in the preferences of adolescents for friendship groups in schools with different racial compositions.

In schools with small proportions of black students, the “acting white” hypothesis does not hold. High-achieving black students experience little pressure (at least as manifested in friendships) to conform to an oppositional culture. When black students are segregated in schools, I provide evidence that an oppositional culture develops. In these schools both high and lower-achieving black students prefer lower-achieving friendship groups to higher-achieving friendship groups. Black students in these schools effectively enforce this oppositional culture through their friendship group choices. High-achieving black students are perceived by their black peers as “acting white” and are not desirable friends. However, these results also show that oppositional culture can extend beyond the black population. Non-black students in schools with large black populations are similarly punished for their academic achievement and success through their peers’ friendship group choices.

This analysis provides a clarification of previous research on the oppositional culture hypothesis by using more appropriate methods and data to assess the hypothesis that high-achieving black adolescents are socially punished for acting white. I find some support for the hypothesis¹⁶. The implication of this result is that the peer environment of black adolescents is *not* hostile to high academic achievement when black adolescents make up less than 50% of the school population. When black students make up more than the majority of a school, high academic achievement among black students *can* be a detriment. In these schools there is a strong stigma against friendship groups that are, on average, high-achieving.

¹⁶ This paper focuses on academic achievement as a measure of “acting white”. Adolescents may be more sensitive to other forms of “acting white”, for example wearing certain brands of clothing or talking in a particular manner, that are not captured by their academic achievement. Furthermore, Farkas et al (2002) argue that high-achieving black students may compensate for their high-achievement by participating in extracurricular activities, increasing their popularity among peers. This paper does not address this concern. In future work I plan to include the extra-curricular involvement of friendship groups as a friendship group characteristic to determine 1) if black students have a preference for friends involved in extra-curricular activities, and 2) if black students are more likely to choose high-achieving friendship groups if members of those groups are active in extra-curricular activities.

The oppositional culture hypothesis is a dynamic theory. It predicts that black adolescents choose friends with lower levels of academic achievement. In response, high-achieving students lower their levels of achievement and as a result, their popularity and number of friends should increase. All studies to date are cross-sectional (including my own). In order to show real support for this theory, research needs to engage with the dynamic process of friendship choice and academic achievement. Although this work provides a look at the cross-sectional friendship choices of adolescents, it cannot speak to the dynamic nature of this theory. In an extension of this paper I will dynamically model friendship choice and behavioral change.

Tables and Figures

Table 1 Means of Friendship Group Variables by Individual Race and Academic Achievement

Variable	All schools		<20% black		20-50% black		>50% black	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Non-black non-high-achiever								
Number of friends	5.134	3.473	5.194	3.464	5.035	3.467	4.097	3.540
Percent black								
0%	0.871	0.336	0.929	0.257	0.774	0.419	0.383	0.486
1-50%	0.095	0.294	0.064	0.245	0.156	0.363	0.175	0.380
51-100%	0.034	0.182	0.007	0.083	0.070	0.256	0.442	0.497
Average GPA								
<2.5	0.276	0.446	0.331	0.470	0.466	0.499	0.510	0.500
2.5-3.0	0.347	0.476	0.313	0.464	0.276	0.447	0.331	0.471
3.0-3.5	0.288	0.453	0.273	0.446	0.190	0.392	0.117	0.322
3.5-4.0	0.090	0.286	0.083	0.276	0.068	0.253	0.041	0.198
N	42,172		34,501		6,741		930	
Non-black high-achiever								
Number of friends	5.608	3.373	5.628	3.359	5.681	3.369	3.882	3.715
Percent black								
0%	0.896	0.306	0.933	0.249	0.802	0.399	0.421	0.495
1-50%	0.089	0.284	0.063	0.243	0.157	0.363	0.206	0.406
51-100%	0.015	0.125	0.003	0.059	0.042	0.200	0.373	0.485
Average GPA								
<2.5	..087	0.282	0.163	0.369	0.237	0.425	0.326	0.470
2.5-3.0	0.197	0.398	0.175	0.380	0.187	0.390	0.277	0.449
3.0-3.5	0.422	0.494	0.391	0.488	0.334	0.472	0.308	0.463
3.5-4.0	0.293	0.455	0.271	0.444	0.242	0.428	0.089	0.285
N	17,822		14,962		2,643		217	
Black non-high-achiever								
Number of friends	4.652	3.581	4.350	3.535	4.537	3.526	4.906	3.642
Percent black								
0%	0.071	0.258	0.311	0.258	0.291	0.454	0.119	0.324
1-50%	0.136	0.343	0.258	0.437	0.104	0.305	0.059	0.822
51-100%	0.792	0.406	0.431	0.495	0.605	0.489	0.822	0.383
Average GPA								
<2.5	0.391	0.488	0.407	0.491	0.571	0.495	0.436	0.496
2.5-3.0	0.379	0.485	0.351	0.477	0.269	0.443	0.356	0.479
3.0-3.5	0.194	0.395	0.197	0.398	0.130	0.337	0.183	0.387
3.5-4.0	0.037	0.188	0.045	0.208	0.030	0.171	0.024	0.154
N	8,825		2,171		3,915		2,739	
Black high-achiever								
Number of friends	4.973	3.482	4.728	3.423	4.955	3.497	5.099	3.494
Percent black								
0%	0.068	0.253	0.342	0.475	0.250	0.433	0.089	0.286
1-50%	0.151	0.359	0.230	0.422	0.145	0.352	0.066	0.248
51-100%	0.779	0.414	0.428	0.496	0.605	0.489	0.844	0.363
Average GPA								
<2.5	0.201	0.401	0.295	0.457	0.399	0.490	0.236	0.425
2.5-3.0	0.340	0.474	0.308	0.462	0.280	0.449	0.294	0.456
3.0-3.5	0.371	0.483	0.274	0.447	0.246	0.431	0.415	0.493
3.5-4.0	0.089	0.284	0.123	0.329	0.075	0.263	0.055	0.229
N	1,558		372		693		493	

Table 2 Models and goodness-of-fit statistics

Model	Friendship Group % Black			Friendship Group % High-Achieving			Interactions		df	Log Likelihood	BIC
	Group Comp.	Individual Race	Ind. Academic Achievement	Group Comp.	Individual Race	Ind. Academic Achievement	%High Ach /%Black	%High Ach/%Black/ Individual Chars.			
Model 1	Yes	No	No	No	No	No	No	No	4	-60517960	-151275
Model 2	Yes	Yes	No	No	No	No	No	No	6	-59478109	-189058
Model 3	Yes	Yes	Yes	No	No	No	No	No	10	-59469350	-189321
Model 4	No	No	No	Yes	No	No	No	No	5	-63268250	-54299
Model 5	No	No	No	Yes	Yes	No	No	No	8	-63159430	-58011
Model 6	No	No	No	Yes	No	Yes	No	No	8	-62592224	-77692
Model 7	No	No	No	Yes	Yes	Yes	No	No	14	-62519660	-80135
Model 8	Yes	No	No	Yes	No	No	No	No	8	-60279799	-159841
Model 9	Yes	Yes	No	Yes	No	Yes	No	No	13	-58535735	-223800
Model 10	Yes	Yes	Yes	Yes	Yes	Yes	No	No	23	-58430580	-227577
Model 11	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	29	-58311685	-231933
Model 12	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes (only race)	35	-58218327	-235341

Separated by school racial composition											
<20% black											
Model 12	Yes (only race)	70	-58070318	-240384							
>50% black											
Model 12	Yes (only race)	70	-58104656	-239094							
<20% black & >50% black											
Model 12	Yes (only race)	105	-58001084	-242476							

Table 3 Log odds of friendship group choice, choice-set size=31, Add Health 1995

	All Schools	Model 12		
		<20% Black	20-50% Black	>50% Black
Friendship group average GPA				
2.5-3.0	-0.048*	-0.02	-0.120*	0.133
	(0.022)	(0.024)	(0.051)	(0.186)
3.0-3.5	-0.070**	-0.033	-0.173**	-0.509*
	(0.024)	(0.027)	(0.054)	(0.247)
3.5-4.0	-0.487**	-0.496**	-0.257**	-0.294
	(0.030)	(0.033)	(0.066)	(0.285)
Friendship group % black				
1-50%	-1.828**	-1.992**	-1.658**	-1.229**
	(0.049)	(0.068)	(0.076)	(0.188)
51-100%	-1.270**	-1.398**	-1.678**	-0.334*
	(0.061)	(0.140)	(0.087)	(0.145)
Interactions with individual achievement				
High achievement X 2.5-3.0	0.119**	0.099*	0.287**	0.271
	(0.038)	(0.042)	(0.084)	(0.253)
High achievement X 3.0-3.5	0.774**	0.755**	0.950**	0.971**
	(0.036)	(0.040)	(0.077)	(0.310)
High achievement X 3.5-4.0	1.298**	1.302**	1.360**	0.747
	(0.040)	(0.045)	(0.088)	(0.426)
High achievement X 1-50% black	-0.077	-0.015	-0.195*	-0.066
	(0.060)	(0.080)	(0.091)	(0.270)
High achievement X 51-100% black	-0.283*	0.078	-0.398**	-0.375
	(0.110)	(0.238)	(0.143)	(0.213)
Interactions with individual race				
Black X 2.5-3.0	-1.627**	-1.182**	-2.245**	-2.791**
	(0.099)	(0.136)	(0.168)	(0.425)
Black X 3.0-3.5	-1.566**	-1.208**	-2.253**	-0.771*
	(0.104)	(0.140)	(0.197)	(0.356)
Black X 3.5-4.0	-1.258**	-1.194**	-2.100**	-0.783*
	(0.115)	(0.165)	(0.208)	(0.393)
Black X 1-50% black	1.005**	1.250**	0.433**	0.063
	(0.082)	(0.139)	(0.127)	(0.206)
Black X 51-100% black	2.407**	2.948**	2.352**	1.046**
	(0.072)	(0.200)	(0.099)	(0.135)
Interactions with individual race and achievement				
Black X High achievement X 2.5-3.0	0.171	0.046	-0.009	0.128
	(0.103)	(0.207)	(0.166)	(0.303)
Black X High achievement X 3.0-3.5	0.077	-0.29	-0.142	0.079
	(0.108)	(0.211)	(0.168)	(0.356)
Black X High achievement X 3.5-4.0	-0.415**	-0.16	-0.836**	0.343
	(0.151)	(0.262)	(0.233)	(0.506)
Black X High achievement X 1-50% black	-0.059	0.043	0.225	-0.539
	(0.134)	(0.225)	(0.191)	(0.397)
Black X High achievement X 51-100% black	0.083	-0.142	0.195	0.072
	(0.144)	(0.331)	(0.198)	(0.270)
Interactions between friendship group characteristics				
2.5-3.0 X 1-50% black	0.047	0.001	0.258*	-0.275
	(0.063)	(0.085)	(0.105)	(0.276)
2.5-3.0 X 51-100% black	-0.014	0.157	-0.067	-0.308
	(0.088)	(0.212)	(0.129)	(0.223)
3.0-3.5 X 1-50% black	-0.031	-0.02	0.115	-0.284
	(0.068)	(0.095)	(0.105)	(0.363)

	Model 12			
	All Schools	<20% Black	20-50% Black	>50% Black
3.0-3.5 X 51-100% black	-0.457** (0.107)	-0.407* (0.197)	-0.405* (0.162)	-0.282 (0.299)
3.5-4.0 X 1-50% black	0.141 (0.090)	0.238* (0.119)	-0.226 (0.147)	0.073 (0.520)
3.5-4.0 X 51-100% black	-0.248 (0.152)	0.147 (0.235)	-0.177 (0.223)	-1.424** (0.471)
Friendship group interactions interacted with individual race				
Black X 2.5-3.0 X 1-50% black	1.428** (0.146)	1.119** (0.228)	1.838** (0.230)	2.706** (0.506)
Black X 2.5-3.0 X 51-100% black	1.608** (0.135)	1.256** (0.294)	2.264** (0.211)	2.872** (0.445)
Black X 3.0-3.5 high-achieving X 1-50% black	1.304** (0.156)	0.959** (0.253)	1.990** (0.252)	1.104* (0.496)
Black X 3.0-3.5 high-achieving X 51-100% black	1.666** (0.153)	1.563** (0.308)	2.293** (0.256)	1.101** (0.396)
Black X 3.5-4.0 high-achieving X 1-50% black	0.713** (0.230)	0.724* (0.362)	1.598** (0.362)	0.153 (0.738)
Black X 3.5-4.0 high-achieving X 51-100% black	1.032** (0.202)	0.861* (0.383)	1.898** (0.314)	1.220* (0.546)
Log-likelihood	-58218327	-58001084	-58001084	-58001084
Observations	2181687	1612186	433752	135749

Robust standard errors in parentheses

* significant at 5%; ** significant at 1%

Table 4 Predicted probability of friendship group choice by percent high-achieving and percent black

Friendship group average GPA	All Schools			< 20% Black			20-50% Black			> 50% Black		
	0	1-50	51-100	0	1-50	51-100	0	1-50	51-100	0	1-50	51-100
Non-black lower-achieving												
<2.5	.260	.035	.043	.254	.030	.041	.292	.043	.029	.325	.045	.084
2.5-3.0	.213	.038	.047	.220	.034	.046	.199	.049	.031	.170	.034	.087
3.0-3.5	.192	.034	.025	.200	.032	.022	.165	.038	.018	.069	.027	.036
3.5-4.0	.082	.020	.012	.080	.020	.021	.106	.018	.013	.073	.041	.010
Non-black high-achieving												
<2.5	.135	.018	.015	.129	.016	.015	.132	.017	.009	.243	.022	.033
2.5-3.0	.124	.022	.018	.122	.020	.018	.124	.027	.012	.160	.021	.043
3.0-3.5	.275	.047	.023	.274	.045	.022	.247	.051	.017	.170	.044	.047
3.5-4.0	.241	.058	.024	.233	.062	.044	.297	.045	.022	.151	.055	.010
Black lower-achieving												
<2.5	.134	.034	.255	.059	.024	.240	.185	.034	.253	.281	.027	.209
2.5-3.0	.013	.028	.261	.012	.024	.327	.008	.024	.226	.012	.019	.221
3.0-3.5	.014	.023	.159	.012	.018	.182	.008	.022	.140	.026	.018	.129
3.5-4.0	.008	.012	.059	.005	.009	.087	.007	.011	.081	.016	.008	.034
Black high-achieving												
<2.5	.097	.022	.143	.031	.010	.147	.143	.027	.149	.212	.016	.100
2.5-3.0	.014	.027	.222	.008	.014	.275	.010	.031	.217	.014	.018	.164
3.0-3.5	.029	.043	.258	.013	.016	.229	.015	.043	.196	.081	.043	.251
3.5-4.0	.018	.023	.103	.011	.016	.229	.014	.024	.131	.038	.013	.049

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