Friendship Choices of Multiracial Adolescents: Racial Homophily, Blending, or Amalgamation?

Jamie M Doyle
Grace Kao, University of Pennsylvania

Available at: http://works.bepress.com/grace_kao/29/
Friendship choices of multiracial adolescents: Racial homophily, blending, or amalgamation?☆

Jamie Mihoko Doyle *, Grace Kao

Population Studies Center and Department of Sociology, University of Pennsylvania, 3718 Locust Walk, Philadelphia, PA 19104, USA

Available online 26 January 2007

Abstract

Using the National Longitudinal Study of Adolescent Health (Add Health), we utilize the concepts of homophily, blending, and amalgamation to describe the possible friendship patterns of multiracials. Homophily occurs when multiracials are most likely to choose other multiracials as friends. Blending occurs when friendship patterns of multiracials are somewhere in-between those of their monoracial counterparts. Amalgamation consists of friendship patterns that are similar to one of their monoracial counterparts. All groups exhibit signs of amalgamation such that non-white multiracials resemble Blacks, and White multiracials resemble whites except for Black-White multiracials. Black-Whites, Asian-Whites, and Asian-Blacks also exhibit signs of blending, while only Native American multiracials show signs of homophily. Multiracials have different experiences depending on their specific racial composition, and while they seem to bridge the distance between racial groups, their friendship patterns also fall along Black and White lines.

© 2006 Elsevier Inc. All rights reserved.

☆ We are grateful to the anonymous reviewers for their helpful comments on an earlier draft, and are indebted to Evelyn Patterson, Susan Watkins, and Elizabeth Vaquera for their suggestions. An earlier version of this paper was presented at the 2004 Annual Meetings of the American Sociological Association (San Francisco, CA). This research was supported by a grant from the NICHD (R01 HD38704-01A1; PI: Grace Kao). This research uses data from Add Health, a program project designed by J. Richard Udry, Peter S. Bearman, and Kathleen Mullan Harris, and funded by a grant P01-HD31921 from the National Institute of Child Health and Human Development, with cooperative funding from 17 other agencies. Special acknowledgement is due to Ronald R. Rindfuss and Barbara Entwisle for assistance in the original design. Persons interested in obtaining data files from Add Health should contact Add Health, Carolina Population Center, (www.cpc.unc.edu/addhealth/contract.html).

* Corresponding author.

E-mail address: jmdoyle@sas.upenn.edu (J.M. Doyle).
Keywords: Friendships; Multiracials; Biracials; Intermarriage; Adolescents; School; Add health

1. Introduction

In Robert E. Park’s seminal essay in 1928, he argues that a multiracial person lives in “two worlds, in both of which he [or she] is more or less a stranger,” (Park, 1928, p. 893). This idea, often referred to as The Marginal Man Theory, has dominated sociological thinking about multiracials and their position in the racial structure of the United States and elsewhere. In the new millennium where multiracial identities are more prevalent and officially recognized by the 2000 US Census, one emerging question is how multiracial people might self-identify in the modern racial landscape. Do they remain in the racial borderlands or act as a bridge between their two or more racial groups, as Park and Stonequist suggest, or do they simply assimilate into one of their monoracial counterparts?

To address this question, we investigate the extent to which self-identified multiracials are integrated into single-race groups by examining their best friend choices during adolescence. We know that racial groups are salient in part because peer groups tend to be racially homogeneous. Friendship choice offers a gauge of the social distance between groups; best friends, in particular, show with whom people feel the closest identification and greatest sense of acceptance.

Our paper proceeds as follows. We first delineate the specific contributions of previous research, focusing on the limited literature on multiracials and research on the determinants of peer selection. Then, drawing on key points from selected literature, we sketch our theoretical approach to this study and outline our hypotheses. We then describe our data, the National Longitudinal Study of Adolescent Health (Add Health). The survey instrument not only allows individuals to check two or more races, but unlike other datasets, provides linkages to the respondent’s friendship network, making it possible to directly examine survey responses by the respondent’s friends. Race of both the respondent and his/her best friend is self-reported, reflecting the racial identity of the respondent as well as his/her best friend. Lastly, we estimate logistic models using Generalized Estimating Equations (GEE) to examine the actual friendship choices of multiracial youth, taking into account the opportunities for interaction.

2. Literature review

2.1. Friendship networks

Race continues to stratify society and social networks in particular as early as grade school (Allport, 1954; McPherson et al., 2001). Previous research shows that among adolescents, racial homophily dominates (Clark and Ayers, 1992; Joyner and Kao, 2000; Way and Chen, 2000; Moody, 2001; Giordano, 2003). Using data from the High School and Beyond Study, Hallinan and Williams (1989) find that Whites are almost six times as likely to be friends with a randomly chosen White as they are with a randomly chosen Black.

---

1 In the 2000 Census, individuals were allowed to check more than one racial category.
Similarly, Blacks were eight times more likely to choose other Blacks than Whites as friends. People tend to choose friends who share similar characteristics, such as gender and class; however, race remains a primary boundary that is particular difficult to cross.

The choice of best friend provides a concise indicator of both self-identification and assimilation into racial groups due to the positive relationship between intimacy of contacts with members of a group and integration with that group (Allport, 1954; Giordano, 2003). Three reasons for this pattern are evident. First, as stated previously, peer groups tend to be racially homophilous. Second, unlike higher-order friends or contacts (i.e. acquaintances, seventh closest friend, etc.), close friendships give a fuller sense of belonging or “we-ness” since they are whom a person defines as most similar to himself or herself (Tajfel, 1982). Intimate friendships are likely to be more homophilous than distant friendships. Third, if this sense of belonging is not satisfied, then people will tend to leave these friendships (Turner, 1975; Tajfel, 1982). This social psychological theory implies that best friend network ties are likely to be less volatile than higher-order friends. When these patterns are analyzed on a group level, they suggest social proximity and greater assimilation of particular multiracial groups with specific monoracial or multiracial groups.

2.2. Multiracial identification, assimilation, and history

Census 2000 created a landmark change in the question on racial identification. Instead of allowing only one response, individuals could identify with more than one racial group. According to the 2000 Census, 2.4% of the US population—or 1 in 40 Americans—self-identified with two or more races (Jones and Smith, 2001). Although multiracials are a small fraction of the US population, they constitute the fifth largest racial group (6.8 million people) and outnumber American Indian/Alaskan Natives (2.4 million) and Native Hawaiian/Pacific Islanders (398,835) (Census 2000 Profile 2002). Moreover, with steady annual increases in the incidence of interracial marriage, researchers expect the proportion of mixed ancestry persons to further grow. Smith and Edmonston (1997) estimate that by 2050, 21% of the US population may identify with multiple racial and/or ethnic ancestries. The increasing recognition of racially mixed persons and the growing availability of data for research makes the examination of this population especially timely (Bean and Stevens, 2003).

Many scholars consider intermarriage to be a litmus test for the narrowing social distance between groups (Bean and Stevens, 2003; Lee and Fernandez, 1998; Kalmijn, 1998) and a principal indicator of the assimilation of minority groups into the majority (Hirschman, 1983; Lieberson and Waters, 1988; Waters, 1990; Gilbertson et al., 1996; Waters, 1999; Rosenfeld, 2002). Yet, the question of the position of multiracial children in the social spectrum remains unanswered (Hirschman et al., 2000). If intermarriage reflects a narrowing of social distance between two groups, will the same two groups equally accept the offspring of interracial marriages? Will multiracials amalgamate into one parent’s racial group or both?

Robert Park’s Race Relations Paradigm predicts that half-White multiracials will tend to closely identify and assimilate with the majority groups. Theoretically, multiracials are a product of marital assimilation by their non-White parent, and the presence of half-White

---

2 That is, if multiracials are taken as an aggregate, mutually exclusive group.
multiracials signifies the acceptance of that minority group into the White mainstream. However, Park does not directly address the racial position of multiracial children of interracial marriage. White multiracials may experience greater flexibility and be accepted by both monoracial groups, or conversely they could be marginalized by both groups. Alternatively, multiracials may feel compelled to conform to one-race categories regardless of their self-identification, perhaps due to past classifications of mixed racial persons (Lee and Bean, 2004). Hypodescent, also known as the “one-drop rule,” states that a person with one drop of non-White blood was considered non-White (Davis, 1991). This method of racial categorization was the dominant method of placing multiracials in a monoracial racial hierarchy, further accentuating the binary classification of Whites and Blacks (and sometimes Whites and other minorities).

2.3. Heterogeneity among multiracial subgroups

Multiracials are not all alike. Indeed, interracial marriage is a non-random process in the United States; however, the underlying reasons for the marital patterns differ depending on specific racial combinations. In addition, there exists an ongoing issue about the “authenticity” of self-identified race for some multiracial subgroups, particularly when analyzing mixed-race Native Americans; that is, the races that a respondent reports may not accurately capture a proximate tie to the ancestry he/she reports. For instance, the individual may not be officially registered in a federally recognized tribe, and may simply be indicating that he/she has some Native American ancestry in his/her family tree. In the following paragraphs, we provide a backdrop to our study by describing the diversity among multiracial subgroups.

2.4. Black-White multiracials

As mentioned previously, anti-miscegenation laws still affect contemporary race relations in the US, and its influence is best illustrated by socioeconomic differences between minority and majority individuals in interracial unions. For instance, researchers find that Black-White interracial couples tend to have higher socioeconomic status than monoracial Black couples but lower than that of monoracial White couples (Farley, 2002; Harris, 2002). In their analysis of Add Health, Udry et al. (2003) find that almost 39.46% of Black-White multiracials have a college educated parent, whereas the percentages for monoracial Whites and Blacks are 41.30% and 35.39%, respectively. This “in-between” status of Black-White multiracials is further validated by a study by Parker and Lucas (2000) using the National Health Interview Survey.

Black-White multiracials are likely to exhibit homophily based on socioeconomic status, which in turn could truncate their opportunities for meeting peers from minority groups. Socioeconomic homophily is a critical factor in friendship formation, particularly for children within schools. Presumably, parents of Black-White children are able to afford housing located near higher quality schools than parents of single-race Blacks, and their children are likely to attend schools with a lower percentage of minority students. This position is supported by an analysis conducted by Harris (2002), who finds that, on average, Black-White multiracials live in Census blocks that are between 52% and 78% White, 14–41% Black, and 3–4% Asian depending on how multiracials are categorized. Lack of a sufficient racial mix of students in their schools and neighborhoods may limit the best friends they can choose, and
results may initially find increased odds of choosing a White best friend. Controlling for both socioeconomic status and the opportunity to meet someone of the same or different race in a school is crucial to understanding the distance between races.

2.5. Asian multiracials

Similar to Black-White intermarriages, interracial unions of Asians are also not random. The presence of the US military in Asian countries has led to the higher prevalence of marriages between Asian females and non-Asian males rather than vice versa (Jacobson and Heaton, 2003; Jacobs and Labov, 2002). Therefore, it is not surprising that Asian-Whites/Blacks are likely to have first generation Asian mothers. What makes mothers of part-Asian children unique is their ongoing fear that their children will be entirely “Americanized” and their Asian heritage will essentially be “washed away” (Xie and Goyette, 1997). As a result of the importance of Asian culture in their households, part-Asian multiracials may have a tendency to choose Asian best friends out of similar tastes in foods, participation in traditions, shared linguistic aptitude, and other aspects of cultural similarity, otherwise known as pan-ethnic homophily. Unfortunately, for population-based studies, there is no surrogate marker that sufficiently accounts for “culture” other than generational status and language spoken at home.

Differences in socioeconomic status and the opportunity to meet individuals from different racial groups are also important to consider for mixed-race Asians. Udry and colleagues show that Asian-White multiracials—similar to Black-White multiracials—occupy an intermediate socioeconomic status compared to their single-race counterparts. The percentage of Asian-White multiracials who have a college educated parent is 52.36% whereas for Whites and Asians it is 41.30% and 60.80%, respectively. On the other hand, in the study by Parker and Lucas using the NHIS, they find that the educational attainment of the mother exceeds that of the two single-race groups. The mean years of education completed by the mothers of Asian-Whites is 13.4 years whereas for their monoracial counterparts, the mean is 12.5 and 13.0 for Asians and Whites, respectively. Given their favorable socioeconomic profile, it is not surprising that Asian-Whites reside in predominantly White neighborhoods. On average, Asian-Whites reside in Census blocks that are between 68% and 82% White, 6–8% Black, and 4–18% Asian (Harris, 2002). Similar to Black-White multiracials, the initial odds of Asian-Whites for choosing White best friends may appear high at the outset. However, after accounting for differences in SES and the racial mix of their schools, the odds are more modest. Due to socioeconomic homophily, we expect to see that before controlling for socioeconomic status, the odds of Asian-Blacks choosing an Asian best friend will be small. In the final models we predict that Asian-Blacks will exhibit friendship choices that are in-between their single-race counterparts.

2.6. Native American multiracials

The identification of Native Americans in the US is of concern to population-based research, particularly in light of their extensive history of racial mixing (Snipp, 1992). There

---

3 Within the last decade, there has been an increase in corporate partnerships with Asian countries which is changing this trend. However, for the cohort used in the current study, the pattern discussed is likely to be in effect.
have been drastic fluctuations in the number of Native Americans reported in the US Census as a result of individuals self-identifying with Native American ancestry who may not be registered with the Bureau of Indian Affairs (BIA). From 1960 to 1990 the number of American Indians reported in the Census more than tripled, from 523,591 to 1,878,285 (Nagel, 1995; Also see Harris, 1994; Eschbach, 1993). After careful analysis of fertility, mortality, and migratory trends of this group, researchers agree that the increased expression of Native American ancestry among those with distal ties was the underlying cause for the unprecedented growth of Native Americans in the US (Nagel, 1995; Snipp, 1997). The nationally representative sample we use is likely to have similar biases to those of the Census.

One important implication of the aforementioned research is the possibility of a reverse relationship between friendship choice and racial self-identification. In particular, if we observe that multiracial Native Americans have significantly high odds of choosing a multiracial best friend, this may lead us to conclude that these multiracials are racially homophilous, that is, they tend to closely identify with others who are also multiracial. However, the underlying mechanism for the trends could be entirely different. Multiracial Native Americans may self-identify with more than one race because they have best friends who are multiracial.

3. Theoretical approach

Our approach examines three hypothetical outcomes outlined by Lieberson and Waters (1988), which we call Homophily, Blending, and Amalgamation. Lieberson and Waters use a similar typology to describe intermarriage patterns among multiethnic populations; we adapt it for application to friendship choice. Homophily is the pattern where multiracials are most likely to choose best friends who are also multiracial. Blending occurs where multiracials have friendship patterns somewhere between those of their single race counterparts. Amalgamation is the tendency to amalgamate into one racial group, that is, to choose best friends of one of their races more than the other. We describe each of these hypothetical possibilities in more detail below.

3.1. Homophily

Multiracial children’s common experiences of exclusion and rejection by single-race groups may produce a preference for friends of mixed racial descent. For example, while the likelihood of an Asian-White finding someone in their school who is Asian-White is small, the common experiences of being multiracial may draw him/her toward having a best friend who is “mixed” rather than “Asian-White.” Homophily would be apparent if multiracials tend to choose other multiracials as their best friends. This perspective emphasizes the similarities between all multiracial groups such that they become a single distinct group that differs from all single-race groups. This pattern is evident in other national contexts with mixed-race populations, such as the “Eurasians” of Southeast Asia (Lieberson and Waters, 1988).

3.2. Blending

Blending occurs if biracials exhibit friendship patterns that bridge two separate racial groups—more specifically, if the patterns of friendship choice are dissimilar from either
racial group but in-between their single-race counterparts. For example, if Black-White biracials are more likely than Blacks but less likely than Whites to choose a White best friend, and if they are also more likely than Whites but less likely than Blacks to have a Black best friend, then their friendship patterns would be consistent with blending. This is consistent with the notion that biracials can bridge the gap between their monoracial counterparts.

3.3. Amalgamation

Amalgamation applies if the odds that self-identified biracials choose best friends of one race over another are severely imbalanced. The tendency for biracials to have friends from only one of their races may suggest a preference for one of the monoracial groups. Suppose that the odds of Asian-Blacks choosing a Black best friend overwhelmingly exceed those of choosing an Asian best friend: this would imply that in spite of self-identification with two races on a survey, they tend to more closely identify with one race. Amalgamation may also suggest that physical racial cues and an ability to “pass” for one race (Nagel, 1995; Bean and Stevens, 2003) play a salient role in friendship choice. This choice is also related to how they are viewed by their monoracial counterparts.

4. Data and methods

We base our analysis on the In-school questionnaire of the National Longitudinal Study of Adolescent Health (Add Health), a nationally representative sample of 90,118 students from 80 high schools in the US, due to several aspects of its unique design. First, the large overall sample size enables us to obtain stable statistical estimates for multiracial subgroups, a relatively small fraction of the total US population. In the unweighted, total In-school sample (not displayed in the tables), 3058 respondents self-identified with two races, including 1448 Native American-Whites, 525 Native American-Blacks, 523 Asian-Whites, 368 Black-Whites, and 194 Asian-Blacks. Since not all students nominated best friends, the sample of multiracial adolescents used for the analysis diminishes substantially to 644 Native American-Whites, 158 Native American-Blacks, 205 Asian-Whites, 135 Black-Whites, and 44 Asian-Blacks. Other biracial groups were too small for us to analyze separately. Eight hundred and fifty one adolescents identified with three or more races, but since these multiracials are a relatively heterogeneous group, we limit our analysis to only those who self-identified with only two races and belong in one of the above groups, to ensure a more concise, parsimonious analysis.4

Like the 2000 Census, the National Health Interview Survey (NHIS) (Parker and Lucas, 2000; Parker and Madans, 2002), Vital Statistics (Heck et al., 2001), and other survey instruments (Boehmer et al., 2002), Add Health allows multiple responses to the race question. However, unlike the Census and NHIS where proxy reporting is common, all responses on Add Health are self-reported, that is, every response to the race question in Add Health reflects the racial identity of the actual respondent and not reports by their parents or significant others. While other survey instruments also record self-reported race,

---

4 It is important to note that the count of respondents in the previous discussion refers to the entire Add Health, In-school sample. The total N by race that we report in Table 1 refers to the numbers of individuals we use for the analysis—namely, those who nominated a best friend.
only by using Add Health can we link the characteristics of the respondent with the characteristics of their peers while sustaining sufficient sample sizes for multiracial subgroups, making these data ideal for this analysis.

4.1. Racial coding

We determine respondents’ race only by their responses to the In-school component of the questionnaire. While other studies use both parental race/ethnicity from the In-home component of Add Health combined with respondent’s self-reported race/ethnicity from the In-school questionnaire to define who is multiracial (Harris and Sim, 2002; Harris, 2002), this method is inappropriate for the current analysis. Students who completed the In-home questionnaire are a 12,105 sub-sample of the 90,118 students who are given the In-school component. In order to retain the highest number of multiracials for this study, we use the entire In-school sample, utilizing an 11-category racial/ethnic scheme.

Add Health asked students, “Are you of Hispanic or Spanish origin?” and “What is your race? If you are of more than one race, you may choose more than one.” Single-race Whites, Blacks, Asians, and Native Americans are identified if they answered, “no” or “don’t know” to the Hispanic origin question and if only one race was selected on the survey.5 “Hispanics” refer to those who responded “yes” to the Hispanic origin question, regardless of what race was also selected. All students identified as multiracial in this study are non-Hispanic, though we recognize that Hispanics can also be multiracial. However, considering this group would introduce a critical problem to our analysis: How would these multiracials be identified in the data? Take for example two respondents who mark “Hispanic” to the Hispanic origin question and “Native American” and “White” to the race question. One respondent has a mother who is Hispanic (Mexican) White and a father who is non-Hispanic Native American. The other respondent is also Hispanic (Mexican), but considers himself/herself a *mestizo*, or a mixed-race Spaniard and Indian, which is a legitimate racial/ethnic social identifier in Latin American social circles in the US and also in their country of origin (Lee and Bean, 2004; Menchaca, 2003; Amaro and Zambrana, 2000). The likelihood of this individual marking “White and Native American” (or “Other”) would seem quite high. Since the In-school questionnaire does not collect information on the race of the parents, disentangling the respondents who are products of inter-marriages in the US and those who have a mixed-race lineage not originating in the US would be a difficult (if not an impossible) endeavor. Thus, we restrict our analysis to non-Hispanic multiracials. We define as multiracial respondents who chose only two races, as not all possible permutations of multiple race categories are considered due to insufficient cell sizes. We only examine the largest multiracial groups in the In-School sample.

4.2. Determinants of friendship choice

Since this study centers on the race of best friend as the dependent variable, it is necessary to control for other salient dimensions determining friendship choice. These fall under two categories. The first is what Lazarsfeld and Merton (1954) call factors for status

---

5 We cannot identify individuals who are “technically” multiracial (i.e. have parents that are of a different race), but chose to identify with a single-race. These individuals could already be amalgamated or blended, but testing this possibility is not possible using the In-school data.
homophily, which include race, ethnicity, sex, age, and socioeconomic status. Since race and ethnicity are our variables of interest, we must control for other factors that might lead to friendships based on non-racial similarity (also see Moody, 2001). Previous studies have found status homophily based on all of these factors. The second dimension is opportunity, referring to the opportunity or constraint to interact with someone of a different race in the school context. We use the racial composition of the school as a proxy for the opportunity for contact with other racial groups.

While measurements of sex and age are self-explanatory, how we choose to measure socioeconomic status requires some clarification. We use maternal education as the only socioeconomic indicator, even when educational status for both parents is available. There are three reasons for this. First, missing responses for paternal education are selective, while missing responses for maternal education are less common than paternal education, reflecting the prevalence of female-headed households and/or lack of paternal involvement in the student’s life. Second, because mothers are usually the primary caregivers for children, adolescents reporting their parents’ educational attainment may be more knowledgeable about their mother’s attainment than that of their father.

4.3. Dependent variables and statistical approach

Respondent’s best friends are identified if they indicate a same-sex first friend; or if the first friend is absent, the second friend (if indicated) is coded as the respondent’s best friend. Same-sex best friends are used because opposite sex friends may or may not be romantic partners (Joyner and Kao, 2000). The In-school sample does not enable us to investigate whether this is the case. We utilize the first friend/second friend coding due to the possibility that the student’s best friend does not attend the same school, and hence is not on the roster for friendship nominations. Our focus is on best friend choice given the school context.

Five sets of three logistic models are used for this analysis using Generalized Estimating Equations (GEE) (see Allison, 2001). GEE estimation corrects for the underestimation of the standard errors due to the clustering of observation within schools by altering the variance–covariance matrix of the error term (known as the R-matrix) to avoid this statistical problem. Unlike the first and second models, the third model in each set is a conditional logistic regression model, which will be described later. For all of our analyses, the dependent variables of interest are dichotomous measures of whether same-sex best friends are Multiracial, White, Black, Asian, and Native American, respectively. GEE Estimation is an ideal statistical approach given the hierarchical nature of racial composition measures, and the clustering of observations within schools. For the sake of brevity, results are reported in the form of odds ratios.

One possible critique is our use of sets of regression models when other more streamlined techniques are available. For instance, for our research question, it might be reasonable to assume that a multinomial logistic regression is the optimal approach for such an analysis. However, we have two reasons for not adopting such an approach. First is due to the compu-
tational intensity of using multilevel modeling in a multinomial framework. We use GEE estimated by Maximum Likelihood to obtain parameters and standard errors that are corrected for the clustering of students within schools. Since we have 80 schools and about 90,000 students, the resource demands are substantial just with a single dichotomous dependent variable. If we were to model a five-category dependent variable simultaneously with 80 schools and 90,000 students, we doubt that the cost of finding such resources to estimate such a model outweighs the potential benefit. Second, there is a potential problem of separation on the dependent variable in a five-category scheme. For instance, there are no Asian-Blacks who have a Native American best friend. Therefore, estimating a single multinomial logistic model could produce a multitude of problems that add little benefit to our analysis.

4.4. Model 3: Logistic models conditional on school racial composition

An important consideration when examining friendship choices is the respondents’ opportunity to meet someone of the same (or different) race. Ignoring this facet of network dynamics could yield misleading results due to endogeneity. In other words, the odds of choosing a friend of a certain race may be influenced by the racial composition of the school rather than respondents’ preferences. To address this possibility, we introduce conditional logistic models that are displayed in Model 3. The models condition on whether a respondent attends a school that has a racial composition with at least 1% of the race of the dependent variable. For instance, when looking at the odds of choosing a White best friend, the models are conditioned on whether an individual attends a school composed of at least 1% White students. This method is repeated for all best friend choices for Model 3.

Since the choice of a best friend can be seen as a discrete choice—only one best friend can be chosen in a given school—it would seem that a conditional logistic regression (or a mixed conditional logit) would be more appropriate. This approach integrates both the characteristics of the chooser with those individuals in a school that can be chosen (Hoffman and Duncan, 1988; also see Jepsen and Jepsen, 2002). In other words, friendship choices would be modeled as both a function of the characteristics of the chooser and the characteristics of those to be chosen. One advantage of this approach is that it would better control for homophily on other dimensions, such as socioeconomic homophily. However, the disadvantage is that if the dependent variable is set up as a set of unordered categories, a mixed conditional logit would still suffer from separation on the dependent variable due to the inclusion of Asian-Blacks—a problem that would also occur in a multinomial logit.

In addition, the dependent variable in a discrete choice model must contain the entire universe of possible choices. Our models consist of sets of dichotomies, all of which have Whites set as the reference category. In other words, we compare multiracials with their single-race counterparts with respect to their chosen best friends, and we set up dichotomies that compare the choices of Asian, Black, White, and Native American best friends with Whites. Hispanics and those who check “Other” as a race, for example, are not included in the dependent variable.

5. Results

Table 1 presents weighted descriptive statistics of single- and multiple-race respondents in the In-school sample. Several salient patterns regarding multiracials are worth noting. First, the majority of respondents who self-identify as multiracial (and indicate a best
Table 1  
Weighted descriptive statistics of respondents from the national longitudinal study of adolescent health, In-school sample*a

<table>
<thead>
<tr>
<th>Sex</th>
<th>White</th>
<th>Black</th>
<th>Asian</th>
<th>Native American</th>
<th>Black and White</th>
<th>Asian and White</th>
<th>Native American and Black</th>
<th>Black and Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>47.0</td>
<td>40.6</td>
<td>52.8</td>
<td>51.0</td>
<td>43.7</td>
<td>42.6</td>
<td>47.5</td>
<td>29.6</td>
<td>48.1</td>
</tr>
<tr>
<td>Female</td>
<td>53.0</td>
<td>59.4</td>
<td>47.2</td>
<td>40.5</td>
<td>56.3</td>
<td>57.4</td>
<td>52.6</td>
<td>70.4</td>
<td>41.9</td>
</tr>
<tr>
<td>Statistical differenceb</td>
<td>W,B</td>
<td>w</td>
<td>W</td>
<td>B</td>
<td>B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>12 and under</td>
<td>9.0</td>
<td>9.4</td>
<td>9.8</td>
<td>15.3</td>
<td>11.2</td>
<td>11.8</td>
<td>11.3</td>
<td>16.0</td>
<td>8.9</td>
</tr>
<tr>
<td>13–15</td>
<td>51.5</td>
<td>53.0</td>
<td>48.8</td>
<td>53.8</td>
<td>53.2</td>
<td>52.8</td>
<td>61.0</td>
<td>52.4</td>
<td>46.7</td>
</tr>
<tr>
<td>16–18</td>
<td>39.2</td>
<td>37.1</td>
<td>40.5</td>
<td>30.2</td>
<td>35.0</td>
<td>35.4</td>
<td>27.7</td>
<td>31.6</td>
<td>42.2</td>
</tr>
<tr>
<td>19+</td>
<td>0.3</td>
<td>0.5</td>
<td>0.9</td>
<td>0.7</td>
<td>0.7</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>2.2</td>
</tr>
<tr>
<td>Statistical difference</td>
<td>W,B</td>
<td>W,A</td>
<td>W,N</td>
<td>N,B</td>
<td>B,A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mother’s education</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;High school</td>
<td>8.3</td>
<td>9.6</td>
<td>7.5</td>
<td>16.0</td>
<td>5.1</td>
<td>6.4</td>
<td>13.8</td>
<td>6.3</td>
<td>8.6</td>
</tr>
<tr>
<td>High school</td>
<td>61.5</td>
<td>60.7</td>
<td>45.8</td>
<td>62.3</td>
<td>68.1</td>
<td>59.5</td>
<td>65.1</td>
<td>63.0</td>
<td>50.5</td>
</tr>
<tr>
<td>High school +</td>
<td>30.2</td>
<td>29.7</td>
<td>46.6</td>
<td>21.6</td>
<td>26.8</td>
<td>34.1</td>
<td>21.1</td>
<td>30.7</td>
<td>41.0</td>
</tr>
<tr>
<td>Statistical difference</td>
<td>W,B</td>
<td>W,A</td>
<td>W,N</td>
<td>N,B</td>
<td>B,A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mean racial composition of schoolc</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>% White</td>
<td>70.0</td>
<td>25.8</td>
<td>35.7</td>
<td>50.0</td>
<td>44.3</td>
<td>56.5</td>
<td>66.2</td>
<td>24.9</td>
<td>26.6</td>
</tr>
<tr>
<td>Statistical difference</td>
<td>W,B</td>
<td>W,A</td>
<td>W,N</td>
<td>N,B</td>
<td>B,A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Black</td>
<td>6.9</td>
<td>44.5</td>
<td>10.5</td>
<td>11.1</td>
<td>21.2</td>
<td>7.9</td>
<td>3.9</td>
<td>37.3</td>
<td>38.6</td>
</tr>
<tr>
<td>Statistical difference</td>
<td>W,B</td>
<td>W,A</td>
<td>W,N</td>
<td>N,B</td>
<td>B,A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Asian</td>
<td>1.7</td>
<td>1.9</td>
<td>15.7</td>
<td>1.3</td>
<td>4.1</td>
<td>7.0</td>
<td>1.7</td>
<td>3.0</td>
<td>4.2</td>
</tr>
<tr>
<td>Statistical difference</td>
<td>W,B</td>
<td>W,A</td>
<td>W,N</td>
<td>N,B</td>
<td>B,A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Native American</td>
<td>1.0</td>
<td>0.8</td>
<td>0.7</td>
<td>5.6</td>
<td>1.0</td>
<td>0.8</td>
<td>1.5</td>
<td>1.6</td>
<td>0.8</td>
</tr>
<tr>
<td>Statistical difference</td>
<td>B</td>
<td>A</td>
<td>W,N</td>
<td>N,B</td>
<td>B,A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Multiracial</td>
<td>5.3</td>
<td>5.2</td>
<td>7.4</td>
<td>6.6</td>
<td>7.3</td>
<td>7.4</td>
<td>6.6</td>
<td>7.5</td>
<td>6.4</td>
</tr>
<tr>
<td>Statistical difference</td>
<td>W</td>
<td>W,A</td>
<td>W,N</td>
<td>N,B</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Total weighted N                  | 6,846,879 | 1,464,975 | 300,568 | 111,282 | 36,475 | 44,907 | 211,008 | 59,264 | 12,914 | 9,088,272 |
| Total un-weighted N               | 22,466   | 4689    | 1511    | 294     | 135    | 205    | 644     | 158    | 44     | 30,146   |


*a Reported are column percents, unless otherwise indicated. Columns may not sum to 100% due to rounding error. All respondents are non-Hispanic.

b Statistical difference between groups is assessed by likelihood ratio χ² tests using weighted contingency tables. The letters W, B, A, and N denote statistical difference from Whites, Blacks, Asians, and Native Americans, respectively. The cut-off value for statistical difference is p<0.05.

c The means for school racial composition do not add up to 100% since we exclude Hispanics and “Other race” from the table. These figures are available from the authors upon request.
friend) are Native American-White biracials, who encompass over half of our multiracial sample (54.3%). Secondly, females represent an overwhelming number of those who self-identify with more than one race, particularly among Native American-Black multiracials, whose proportion of females is 70.4%. This pattern suggests a greater propensity for female multiracials to identify with more than one race compared to male multiracials. It is likely that females are more cognizant of the complexity of their racial identity than males. Lastly, adolescents who self-identify with more than one race are, on average, much younger than single-race groups.

School racial composition varies greatly among biracial adolescents as compared with their monoracial counterparts. Biracial Black-Whites tend to be intermediate between their single-race counterparts with respect to their schools’ racial. Black-White adolescents, for instance, attend schools that have more Whites than their Black counterparts, but fewer Whites than the schools of their White counterparts; and vice versa. This pattern is consistent among all biracial groups observed.

Table 2 examines the race of monoracial and biracial respondents by the race of their best friend. Note that this is a simple descriptive account of the actual choice of friends and does not take into account the racial composition of schools. Still, we find that the descriptive account offers clues to the friendship choices of multiracials. The number of multiracial friends is too small for us to disaggregate this group, but we can examine the racial identifications of the four largest multiracial groups of respondents. Overall, monoracial respondents overwhelmingly prefer racially homophilous friendships. Among the multiracial respondents, the patterns are more complex. Black-White biracials are almost perfectly split between having Black and White friends, with only slightly more single-race White best friends. The remaining half-White groups report having mostly White best friends, while mixed minorities (non-White biracials) report mostly Black best friends. Our findings may suggest also that other minority groups (i.e. Asians and Native Americans) may be less likely to accept their biracial Black counterparts compared to their biracial White counterparts.

Table 3 presents results from logistic regression models that estimate the odds of choosing a best friend of a particular racial group. The current analysis uses three models for

Table 2
Cross-classification of respondents and their best friends

<table>
<thead>
<tr>
<th>Best Friend’s race</th>
<th>White</th>
<th>Black</th>
<th>Asian</th>
<th>Native American</th>
<th>Black and White</th>
<th>Asian and White</th>
<th>Native American and White</th>
<th>Native American and Black</th>
<th>Asian and Black</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monoracials</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>92.4</td>
<td>6.5</td>
<td>26.1</td>
<td>70.7</td>
<td>42.2</td>
<td>70.2</td>
<td>88.5</td>
<td>10.1</td>
<td>9.1</td>
</tr>
<tr>
<td>Black</td>
<td>1.5</td>
<td>86.7</td>
<td>3.4</td>
<td>8.8</td>
<td>40.7</td>
<td>2.4</td>
<td>2.3</td>
<td>76.6</td>
<td>79.5</td>
</tr>
<tr>
<td>Asian</td>
<td>1.8</td>
<td>1.2</td>
<td>64.4</td>
<td>2.0</td>
<td>4.4</td>
<td>17.6</td>
<td>1.7</td>
<td>1.9</td>
<td>6.8</td>
</tr>
<tr>
<td>Native American</td>
<td>0.8</td>
<td>6.0</td>
<td>0.6</td>
<td>13.3</td>
<td>3.7</td>
<td>1.5</td>
<td>1.6</td>
<td>0.6</td>
<td>0.0</td>
</tr>
<tr>
<td>Multiracial</td>
<td>3.5</td>
<td>5.1</td>
<td>5.5</td>
<td>5.1</td>
<td>8.9</td>
<td>8.3</td>
<td>5.9</td>
<td>10.8</td>
<td>4.5</td>
</tr>
<tr>
<td>Total un-weighted N</td>
<td>22,466</td>
<td>4689</td>
<td>1511</td>
<td>294</td>
<td>135</td>
<td>205</td>
<td>644</td>
<td>158</td>
<td>44</td>
</tr>
</tbody>
</table>


* Included in best friend calculations are cases where “first friend” is absent, but the a “second first friend” is indicated. More details on first/second best friends are available on the following website: http://www.jamiemihoko.com/SSR_appendix1.htm. Reported are un-weighted column percents. Weighted percentages are available from the authors upon request.
Table 3
Logistic Models using GEE estimation with race of best friend as the outcome$^{a,b,c}$

<table>
<thead>
<tr>
<th>Race of Best Friend</th>
<th>Characteristics of Respondent</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3$^{d,e}$</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3$^{d,e}$</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3$^{d,e}$</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3$^{d,e}$</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3$^{d,e}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race</td>
<td>White</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>Ref</td>
<td>1.20</td>
<td>1.22</td>
<td>1.21</td>
<td>Ref</td>
<td>0.04*</td>
<td>0.03</td>
<td>Ref</td>
<td>73.77*</td>
<td>78.26*</td>
<td>48.96*</td>
<td>0.03*</td>
<td>0.37</td>
<td>0.61</td>
<td>0.60</td>
<td>0.55</td>
</tr>
<tr>
<td>Asian</td>
<td>Ref</td>
<td>1.26</td>
<td>1.32</td>
<td>1.31</td>
<td>Ref</td>
<td>0.19*</td>
<td>0.20</td>
<td>Ref</td>
<td>2.60*</td>
<td>1.10</td>
<td>2.02*</td>
<td>27.20*</td>
<td>24.30*</td>
<td>16.99*</td>
<td>0.99</td>
<td>0.94</td>
</tr>
<tr>
<td>Native American</td>
<td>1.04</td>
<td>1.04</td>
<td>1.02</td>
<td>0.38*</td>
<td>0.40</td>
<td>4.52*</td>
<td>4.41</td>
<td>4.76*</td>
<td>1.25</td>
<td>1.47</td>
<td>1.94</td>
<td>10.45</td>
<td>12.56</td>
<td>8.22*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black and White</td>
<td>1.79</td>
<td>1.83</td>
<td>1.80</td>
<td>0.15*</td>
<td>0.17</td>
<td>23.71*</td>
<td>22.04*</td>
<td>15.22*</td>
<td>1.11</td>
<td>0.83</td>
<td>0.63</td>
<td>4.07*</td>
<td>5.35</td>
<td>3.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian and White</td>
<td>1.31</td>
<td>0.92</td>
<td>0.92</td>
<td>0.55*</td>
<td>0.60</td>
<td>1.22</td>
<td>1.42</td>
<td>1.35</td>
<td>4.30*</td>
<td>4.55</td>
<td>3.62*</td>
<td>1.31</td>
<td>0.37</td>
<td>0.74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Native American</td>
<td>1.89*</td>
<td>1.74</td>
<td>1.71</td>
<td>0.81</td>
<td>0.90</td>
<td>0.90*</td>
<td>1.00</td>
<td>0.70</td>
<td>0.75*</td>
<td>0.53</td>
<td>1.47</td>
<td>1.35</td>
<td>1.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and White</td>
<td>Native American</td>
<td>2.77*</td>
<td>2.51</td>
<td>2.46</td>
<td>0.06*</td>
<td>0.05</td>
<td>0.06*</td>
<td>48.50*</td>
<td>48.17*</td>
<td>31.00*</td>
<td>0.53</td>
<td>0.70</td>
<td>0.19</td>
<td>0.69</td>
<td>1.00</td>
<td>0.45</td>
</tr>
<tr>
<td>Asian and Black</td>
<td>0.62</td>
<td>0.56</td>
<td>0.56</td>
<td>0.04*</td>
<td>0.03</td>
<td>0.04*</td>
<td>59.90*</td>
<td>66.70*</td>
<td>41.13*</td>
<td>2.51</td>
<td>3.22</td>
<td>3.13*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>Female</td>
<td>1.21*</td>
<td>0.89*</td>
<td>1.13*</td>
<td>1.10</td>
<td>1.04</td>
<td>1.06*</td>
<td>0.84</td>
<td>0.99</td>
<td>0.52*</td>
<td>0.87</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.89*</td>
<td>1.21*</td>
<td>1.10</td>
<td>1.13</td>
<td>1.07*</td>
<td>1.04</td>
<td>1.02</td>
<td>0.88</td>
<td>0.83</td>
<td>0.50*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother’s education</td>
<td>&lt;High school</td>
<td>1.10</td>
<td>1.10</td>
<td>0.86</td>
<td>0.85</td>
<td>1.18</td>
<td>1.15</td>
<td>0.90</td>
<td>0.97</td>
<td>0.92</td>
<td>0.86</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>High school +</td>
<td>0.80*</td>
<td>0.80*</td>
<td>1.12*</td>
<td>1.13*</td>
<td>1.04</td>
<td>1.03</td>
<td>1.21</td>
<td>1.16</td>
<td>0.94</td>
<td>1.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(continued on next page)
Table 3 (continued)

<table>
<thead>
<tr>
<th>Race of Best Friend</th>
<th>Characteristics of Respondent</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Deviance</td>
<td>4.09E+06</td>
<td>3.59E+06</td>
<td>3.50E+06</td>
<td>9.46E+06</td>
<td>8.38E+06</td>
<td>7.97E+06</td>
<td>3.78E+06</td>
<td>3.22E+06</td>
<td>3.06E+06</td>
<td>1.76E+06</td>
<td>1.57E+06</td>
<td>1.44E+06</td>
<td>1.10E+06</td>
<td>9.29E+06</td>
<td>8.40E+06</td>
</tr>
<tr>
<td></td>
<td>Log Likelihood</td>
<td>-2.04E+06</td>
<td>-1.79E+06</td>
<td>-1.75E+06</td>
<td>-4.73E+06</td>
<td>-4.19E+06</td>
<td>-3.98E+06</td>
<td>-1.89E+06</td>
<td>-1.61E+06</td>
<td>-1.53E+06</td>
<td>-8.79E+06</td>
<td>-7.87E+06</td>
<td>-7.19E+06</td>
<td>-5.50E+06</td>
<td>-4.64E+06</td>
<td>-4.20E+06</td>
</tr>
</tbody>
</table>


a Reference categories are Male and High school, unless otherwise indicated. Whites are the reference in all models to allow for comparability across all models.
b The analysis is based on weighted, logistic models using Generalized Estimating Equations (GEE).
c No Asian-Blacks reported having Native American friends.
d The letters A, B, and N denote statistical difference from Asian, Blacks, and Native Americans, respectively. A letter for Whites is not included since they are the reference category. Models for Native American and Multiracial best friends did not show statistical differences from single race groups.
e Logistic regression models conditioned on racial composition. Given that an individual attends a school with a racial composition (using race of the dependent variable) that is at least 1% of the school. The odds ratios shown are the odds of choosing a best friend of the dependent variable’s race given the opportunity to meet someone of that race.
*p < 0.05.
each of the outcome measures: Multiracial, White, Black, Asian, and Native American best friends. For Model 1, under each dependent outcome, we only include measures of the race of respondents. Model 2 adds measures of their background characteristics, and Model 3 conditions on the racial composition of the schools that the respondents attend.

The most pronounced results from Model 1 (the baseline model, Table 3) are among the mixed-race Native Americans who appear to be racially homophilous. Native American-Blacks are more than twice as likely to have a multiracial best friend, while Native-American-Whites are 89% more likely than Whites. Although this may indicate a clear preference for multiracial best friends for both groups, looking at other outcomes introduces a further complication. For example, the odds that Native American-Whites will choose a White friend are almost at unity with single-race Whites (OR = 0.81). Similarly, when looking at Black best friends as the dependent variable, the odds ratio for Native American-Blacks is 48.50, a number that is more comparable to single-race Blacks than to Native Americans. Since only one outcome is observed at a time, we cannot observe whether one race is preferred over another; that is, while the odds ratio for choosing a multiracial best friend is 1.89 for Native American-Whites, we do not know whether they prefer a multiracial best friend more than a White best friend.

Even at baseline, there is emerging evidence for a racial blending model for Black-White multiracials. In other words, they exhibit odds that are in-between those of their single-race counterparts. When looking at the odds of choosing a White best friend, for instance, Black-White multiracials are about 85% less likely than Whites to choose a best friend of that race. While this may appear as evidence against the racial blending pattern, contrasting their odds with single-race Blacks provides evidence for racial blending. Single-race Blacks are 96% less likely than Whites to nominate a White best friend, as are Native American-Blacks and Asian-Blacks. The color line, therefore, may be more permeable for Black-Whites than single-race Blacks and other half-Black multiracials. However, the aforementioned trends may be obscured by differences in demographic characteristics and the opportunity to meet individuals from similar or different racial backgrounds.

Model 2 shows that demographic characteristics appear to significantly affect the odds ratios for friendship choice when looking at minority groups as the outcome. We find the most marked change in models that examine Black best friend as the dependent variable. Sociodemographic characteristics significantly mediate the odds for mixed-race and single-race Blacks for choosing a Black best friend. Controlling for these characteristics seems to create a greater gap in the odds between mixed-/single-race Blacks and Whites for choosing a Black best friend. The only exception is for Black-White multiracials, since the addition of these factors accounts for part of their disparity with Whites. The parallel shift in odds of half-Black multiracials compared with Blacks suggests a racial amalgamation pattern.

Interestingly, Model 2 also shows that the odds for both single- and mixed-race Asians are sensitive to differences in sociodemographic characteristics when predicting for an Asian best friend. It appears that status homophily explains away differences between Whites and Asians, but suppresses the differences between mixed-race Asians. Recall that single-race Asians had the highest percentage of respondents who have a college educated mother. Therefore, after controlling for socioeconomic status (along with other individual factors), the odds ratio for Asians decreases by 2.9 while the odds increase for multiracial Asians in Model 2 for Asian best friends.
Model 3 displays results from the conditional logistic regression models that account for the racial composition of schools. The most profound yet puzzling findings arise with Black best friends as the dependent variable. The odds for Black-White and Asian-Black multiracials decrease after controlling for their schools’ racial mix. For Black-Whites, the change in odds from Models 2 to 3 is 31%. In addition, the likelihood ratio \( \chi^2 \) tests show that they are statistically different from both Blacks and Whites. Recall that in Table 1, Black-Whites attend schools that are 18.7% Black on average, whereas for Blacks, it is 38%. From Table 1 alone, one could predict that since Black-Whites attend schools with few Black students and many White students that, after accounting for this discrepancy, the odds for Black-Whites choosing a Black best friend would increase. However, in Model 3 the odds actually decrease. Alternatively, the decrease in odds for Asian-Blacks (when looking at Black best friends as the dependent variable) after accounting for their schools’ racial mix is consistent with prior research on residential and school segregation. Recall that the mean percentage of Blacks in the schools Black-Asians attend is 20.2%, which exceeds that of single-race Asians at 10.4% and, relatively speaking, is more comparable to that of monoracial Blacks at 38%. The substantial decrease in odds from 66.7 to 41.1 suggests that part of the elevated odds for Asian-Blacks in choosing a Black best friend is a function of the racial composition of their schools.

The change from Models 2 to 3, when Asian best friends are the outcome, show that multiracial Asians exhibit evidence of blending: their odds of choosing an Asian best friend are in-between monoracial Asians and monoracial Whites. Interestingly, the change in odds for mixed-race Asians reacts differently than monoracial Asians when accounting for a school’s racial mix. For instance, the attenuation in odds for Asian-Whites is not as sizable as the decrease for monoracial Asians. After accounting for the opportunity to meet monoracial Asians in a given school, the odds ratio for single-race Asians decreases from 24.3 to 17.0 while for Asian-Whites, the change is from 4.6 to 3.6. This decline is expected given the average percentages of Asians that attend their schools. Table 1 shows that for monoracial Whites, the average percentage of Asian students in schools that Whites attend is 3.1% whereas for monoracial Asians and Asian-Whites, the average is 16.5% and 10%, respectively.

Deciphering what model Asian-Blacks fall into, when Asians are the dependent variable, is not as obvious as it is for Asian-Whites. On the one hand, there is evidence against applying the blending model to this group. For instance, when statistically comparing Asian-Blacks with Blacks and Asians (as indicated by the superscripts “B” and “A”), Asian-Blacks are not statistically different from Blacks but are statistically different from Asians in the odds of choosing an Asian best friends, which aligns with the amalgamation and not the blending model. On the other hand, more subtle evidence suggests the application of both amalgamation and blending to Asian-Blacks. Recall that Asian-Blacks have fewer opportunities to have Asian best friends than their other Asian counterparts. Yet even after taking into account the racial mix of their schools, there is only a slight decline in their odds. When comparing the odds ratios of Asian-Blacks (OR = 3.1) with monoracial Asians (OR = 17.0) and Blacks (OR = 0.4), it appears that, like Asian-Whites, Asian-Blacks also satisfy one condition of the blending model: their odds of choosing an Asian best friend are overwhelmingly higher than those of monoracial Blacks and significantly lower than those of monoracial Asians.

The most compelling finding stems from our test of the homophily model for multiracials with multiracial best friends as the dependent variable. For all racial groups
considered, the opportunity to meet someone who is multiracial seems marginally important. Our hypothesis was that multiracials may have little opportunity to meet others who are also mixed-race, predicting that after accounting for the racial composition of schools, multiracials would have the tendency to have other mixed-race best friends. However, this factor seems to be less crucial. The coefficients for all racial groups considered are fairly inelastic. The only two groups that remain differentiated from other groups are multiracial Native Americans, whose odds of choosing a multiracial best friend remains substantially higher than other racial groups. The conditional logistic models, then, further validate the pattern of homophily of multiracial Native Americans.

All multiracial subgroups considered for the study show some degree of amalgamation, with multiracial Blacks amalgamating with Blacks and half-Whites amalgamating with Whites. After accounting for the opportunity to meet someone who is Black, Black-White multiracials have 15 times the odds of choosing a Black best friend compared to Whites. In addition, Black-White multiracials are 82% less likely to choose a white best friend compared to Whites. For Asian-Black multiracials, the odds for choosing an Asian best friend are indeed robust; however, the magnitude of the difference is striking when compared to the odds of choosing a Black best friend (OR = 41 and 3.1 for the odds of choosing a Black versus an Asian best friend, respectively). The patterns for Native American-Blacks are far clearer than for Black-White and Black-Asians. The odds of choosing a Native American best friend are considerably lower than those of Whites, and are noticeably higher (at an OR of 31) when looking at Black best friends. Similarly, half-White multiracials, with the exception of Black-Whites, also exhibit evidence of amalgamation, more so for Native American-Whites than for Asian-Whites. Asian-Whites are only 40% less likely than Whites to choose a White best friend, but are statistically different from both Asian and Whites in their odds; alternatively, Native American-Whites have odds that are only 10% less than that of monoracial Whites. However, when considering the odds of choosing a Native American best friend, the coefficient indicates that not only are Native American-Whites 55% less likely than Whites to do so, but they are also not statistically different from Whites.

6. Conclusion

6.1. Summary of findings

Our major findings are summarized in Table 4. Results suggest that the homophily model applies exclusively to multiracial Native Americans. Other multiracial subgroups that we

<table>
<thead>
<tr>
<th>Friendship pattern</th>
<th>Race of respondents</th>
<th>Black-White</th>
<th>Asian-White</th>
<th>Native American-White</th>
<th>Native American-Black</th>
<th>Asian-Black Black</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homophily</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blending</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amalgamation</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final</td>
<td>Amalgamation</td>
<td>Blending</td>
<td>Homophily/</td>
<td>Homophily/</td>
<td>Blending/</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>amalgamation</td>
<td>amalgamation</td>
<td>amalgamation</td>
<td></td>
</tr>
</tbody>
</table>
considered could not be differentiated from their single-race counterparts (statistically), and their coefficients did not change after accounting for the racial composition of the schools they attend. Alternatively, odds for multiracial Native Americans remain robust and statistically different from Whites even in the conditional logistic models.

Black-White, Asian-White, and Asian-Black multiracials exhibit patterns that are consistent with the blending model. In the case of Black-Whites, the odds of choosing a White best friend are substantially higher than for monoracial Blacks, even after accounting for the racial composition of the schools that they attend. In addition, when looking at the odds of choosing a Black best friend, the same trend follows: the odds of choosing a Black best friend are strikingly higher for Black-Whites than for their monoracial White counterparts. In both cases, Black-Whites are statistically different from both monoracial Whites and Blacks. Perhaps the most intriguing patterns are among multiracial Asians, who tend to exhibit blending for groups of varying social distances. In particular, the social distance between Asians and Whites is much narrower than for Asians and Blacks, yet both Asian-Whites and Asian-Blacks show patterns of blending. Asian-Whites are far less likely than Asians but far more likely than Whites to choose an Asian best friend. Asian-Blacks also have a similar pattern: They are substantially more likely that Blacks and less likely than Asians to choose a best friend who is Asian. Although the likelihood ratio \( \chi^2 \) statistics show that they are not statistically different from Blacks in these odds, the robust coefficient in comparison to Blacks is difficult to overlook, and suggests that the small number of Asian-Blacks in Add Health may explain the results from the statistical difference tests.

Interestingly, all of the multiracials we consider exhibit some evidence of amalgamation, although some more so than others. For instance, mixed-race Native Americans unquestionably fit the amalgamation model, with Native American-Blacks amalgamating into Blacks and Native American-Whites into Whites. When examining Native American best friends as the dependent variable, multiracial Native Americans have odds that are lower than both monoracial Native Americans and Black-White multiracials. In addition, they are not statistically different from either of their single-race counterparts. Alternatively, when looking at the odds of choosing their other monoracial counterpart, the pattern of amalgamation becomes more pronounced. Native American-Whites have odds that are nearly at parity with monoracial Whites for choosing a White best friend. Similarly, the sizeable coefficient of Native American-Blacks, especially in comparison to monoracial Native Americans, neatly corresponds to the definition of amalgamation.

The remaining multiracial groups—Asian-Whites, Black-Whites, and Asian-Blacks—have signs of both the blending and amalgamation. For instance, in the case of Black-Whites, differences in the coefficient for choosing a Black best friend versus a White best friend are considerable in comparison. This is also the case for Asian-Blacks relative to their single-race counterparts. In other words, multiracial Blacks tend to exhibit a pattern of amalgamation into Blacks. Alternatively, multiracial Whites (excluding Black-Whites) tend to amalgamate into Whites. For example, while the odds for Asian-Whites are 40% less than monoracial Whites in choosing a White best friend, the coefficient for Asian-Whites are more than three times than that of monoracial Asians when we examine at the odds of choosing an Asian best friend.
6.2. Discussion

Our overarching contribution is to the sociological understanding of race relations as racial identities become increasingly complex. In examining the offspring of interracial unions, we are also implicitly testing whether intermarriage really marks the narrowing social distance between two races. We find that this may be true for groups such as Native Americans and Asians, but not for Blacks (with the exception of Asian-Black multiracials).

Overall, our analysis shows that multiracials are somewhat integrated into single-race groups. By disaggregating multiracials into subgroups, our findings counter the long-standing Marginal Man theory. While Park and Stonequist predict multiracials to be cast in the racial borderlands, our evidence suggest that multiracials seem to find their place among single-race groups in spite of their identity asserting their racial difference. However, their specific experiences of integration vary depending on their racial backgrounds. Mixed minorities (or non-white multiracials) appear to assimilate better with single-race Blacks, while half-White multiracials seem to integrate better with single-race Whites. Like other multiracial subgroups, those having both Black and White racial ancestries also find their place in society, though the Black-White division does not appear to apply. Instead, they exhibit patterns intermediate between the two groups. These findings have profound implications for research findings that attribute differences in outcomes among multiracials (as compared to monoracials) to feelings of conflict and isolation implied by the Marginal Man theory. Moreover, we suggest that researchers should exercise caution when combining multiracials into single-race groups, since their racial experiences differ depending on racial ancestry. This study suggests that even for multiracials, individuals and groups are divided along Black and White lines.

While our study introduces an innovative view of race relations, further research is essential. This analysis does not focus on friendship networks and structures for multiracials or on the statistical methodologies used for network analysis, and does not make assertions about the meaning of race to the individual and to his/her best friend. Moreover, qualitative work is necessary to further explore whether monoracials view multiracials as part of their in-group and vice versa.

Second, our results foreshadow possible gender differences in friendship choice for multiracials. Because females are more likely to self-identify as multiracial, gender-specific models would provide breadth to the results uncovered in this analysis, and further elucidate the trajectory of race relations.

Third, while our results show evidence of blending, a future study could take a more nuanced approach by examining the racial mix of the entire friendship network of multiracials (instead of only best friends). If social circles of multiracials are more diverse than that of their single-race counterparts, this would lend stronger evidence for the blending model. Lastly, future research should investigate dyadic relationships and examine patterns of reciprocity. Findings from statistical analyses of reciprocity among friends combined with qualitative data examining the meanings of friendship among multiracials and between multiracials and their single-race peers would greatly enrich our understanding of where multiracials fit in the racial structure. Multiracials may augment dominant notions of discrete racial categories, but may also be forced to reify those divisions in the United States.
References


