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**The Black-White-Other test score gap: academic achievement among mixed race adolescents\***

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## **The Black-White-Other test score gap: academic achievement among mixed race adolescents**

**Abstract:** This study tests theories of racial differences in achievement among mono-racial and multi-racial high school students. The theories in question (status attainment, oppositional culture, and educational attitudes) were developed to explain achievement differences among mono-racial groups, but this study tests how the theories apply to a multi-racial sample. Results show that ethnic identity and experiences of racism are not strong factors in explaining achievement among multi-racial *or* mono-racial students. Instead, the school achievement of multi-racial youth is most clearly related to the racial composition of the contexts they live in such as peer group, family, neighborhood, and school. Additional descriptive statistics compare multi-racial groups, showing that multi-racial students who self-identify as black or Latino achieve less in school than those who self-identify as white or Asian. The paper proposes a trans-racial theory of achievement that considers the effects of contexts.

## Introduction

In the 1970s, several years after the last few states repealed their anti-miscegenation laws, one in 100 children born in the United States had parents who were not of the same race. In the thirty years since, that ratio has increased to one in nineteen (National Center for Health Statistics, 1999). Over the last decade, multi-racial and multi-ethnic<sup>2</sup> people and their racial/ethnic identities have increasingly fascinated researchers in fields ranging from psychology to demography. However, the resulting research on multi-racial identity is developing slowly because of the difficulty of identifying appropriate samples. Most of the existing research makes use of small, non-random samples of multi-racial people. This research should be expanded and strengthened by considering not only multi-racial identity, but its effects on developmental outcomes for adolescents. Recognizing the impact of multi-racial status on developmental outcomes can help us better understand the life course trajectories of a fast-growing segment of the American population.

Although research on multi-racial identity is gaining popularity across multiple fields, existing studies of developmental outcomes for multi-racial youth focus almost exclusively on mental health outcomes (Rocquemore and Brunnsma, 2002), ignoring outcomes such as achievement, deviance, and peer relations. Researchers who examine race with respect to these latter outcomes have focused on cultural and environmental factors associated with *monoracial*

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<sup>2</sup> Although race and ethnicity are different characteristics, for the purposes of this paper, multi-racial will refer to multi-racial *and* multi-ethnic.

groups, not multi-racial groups. For example, sociologists of education have documented consistent race differences in academic achievement: Asians and Asian-Americans achieve the highest grades and test scores, on average, followed by non-Hispanic Whites, then Hispanics and African Americans (Hallinan 1988, Lee 1996, Jencks and Phillips 1998). These achievement differences remain significant even when one controls for the quality and funding of the school, family socioeconomic status, and neighborhood, family and peer group influences (Jencks and Phillips 1998). However, the research documenting these differences has not considered the unique position of multi-racial students.

As educators and public policy makers struggle with issues of test score gaps between monoracial groups, they have used a select group of theories to guide their research and practices. These include status attainment theory (Howell and Friese 1979; Kerckhoff 1976, 1977a, 1977b; Porter 1974; Portes and Wilson 1976), theories of parenting style (Baumrind 1978, Steinberg, Dornbusch and Brown 1992; Dornbusch et al 1987), expectation states theory (Berger, Cohen, & Zelditch 1972; Cohen & Roper 1972), oppositional culture theory (Fordham and Ogbu 1986, Ogbu and Simons 1998, Ogbu and Davis 2003), and theories about students' attitudes toward education (Mickelson 1990). These theories of racial variation represent the current range of thinking on achievement differences, taking into account factors such as background, environment, culture, and cognitive processes. They lack a physiological perspective, but

most of the literature concurs that biological differences between race groups, if they exist at all (King, 1981), do not have a significant influence on the achievement gap between race groups (Marks, 2001).

Yet these theories do not adequately address the complexities of achievement differences among America's growing number of multi-racial youth because they assume that there is a mono-racial cultural style driving the achievement behavior of each racial group. This paper will describe the achievement patterns of mono-racial and multi-racial youth and then examine how their achievement fits into three of the abovementioned theoretical explanations of mono-racial differences in achievement. Finally, we present a model that explains achievement for multi-racial students.

*The monoracial test score gap:*

Much of the work on ethnic differences in academic achievement focuses on African Americans and non-Hispanic Whites (henceforth referred to as blacks and whites; see Jencks and Phillips 1998 for a complete review) and generally shows that the environment plays an important and well-documented role in creating achievement differences between race groups. Herrnstein and Murray's notorious (1994) work is one of the few voices arguing for the effects of genetics, but there is a mountain of evidence opposing it. For example, black and multi-racial children raised in white homes have higher test scores than those raised in adoptive black homes (Nisbett, 1998), demonstrating the impact of family

environment. Since the 1930s when IQ tests were first administered, scores have risen for all ethnic groups (Flynn 1987; Neisser, 1998), most likely the result of environmental effects such as better nutrition and more universal schooling. The gap between black and white IQ scores has decreased over the last century (Hedges and Nowell 1998, and Grissmer, Flanagan, and Williamson 1998), which either means that black genes have developed at a faster rate than white ones, or that the environmental differences affecting achievement between blacks and whites have decreased over time. The fact that the test scores of blacks raised in adoptive white families decrease relative to those of white students during adolescence (Nisbett, 1998) demonstrates the influence of the familial environment.

There are at least two types of explanations for this body of environmental evidence about the test score gap: cultural and structural. Cultural explanations range from ethnic differences in family socialization toward school achievement, to ethnic differences in the cultural values placed on education, to perceived or real ethnic discrimination in school by teachers and stereotype threat (Mickelson 1990; Carew and Lightfoot 1979; Baron, Tom, and Cooper 1985; Ogbu, 1978; Steele, 1997; Steinberg, Dornbusch, and Brown, 1992). Cross-cultural explanations point to how assimilation with American culture and school norms affect the achievement of immigrant youth of Asian and Hispanic descent (Suarez-Orozco and Suarez-Orozco, 2001; Lee 1996, Stanton-Salazar, 2001).

Ogbu's theory of oppositional culture is one example of such cultural theories. He argues that members of certain racial and ethnic groups that perceive limited returns to education and racist educational/occupational opportunity structures have developed social norms that oppose white middle-class cultural dominance. These groups include involuntary minorities<sup>3</sup> such as African Americans, Latinos, Native Americans, and Asian refugees. Involuntary minority students develop resistance to school and to the white, middle-class cultural achievement standards they perceive to be controlling the educational system. The result is a peer group that imposes negative sanctions for academic achievement, leading to depressed grades for involuntary minority group students.

One weakness of Ogbu's explanation is that it assumes that the experiences of race groups are culturally specific, identifiable, and different.<sup>4</sup> Ogbu argues that the factors deterring black students' academic achievement are rooted in the African-American history. This history has generated an ecological culture which rejects mainstream white, middle-class culture. Similarly, he would argue that the factors deterring Latino student achievement are rooted in the Latino culture and the history of its relationship to white culture; that Native American culture and the history of its relationship to white culture

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<sup>3</sup> Involuntary minorities are those whose ancestors were enslaved, conquered, or forced to flee to the US because of a dangerous situation in their country of origin. They are contrasted with voluntary minorities, who chose and carefully planned to come to this country in pursuit of a better life style.

<sup>4</sup> Other scholars have expressed different reservations about Ogbu's thesis, for example Ainsworth-Darnell and Downey (1998) argue convincingly that survey research doesn't support the theory.

affects the ability of Natives to excel in school, and so forth. Ogbu's theory assumes that race is an unambiguous status characteristic that predisposes an individual to embrace a given oppositional culture. Thus, the theory was not designed to explain the experiences of mixed race individuals; nor it does readily suggest such an explanation. Scholars looking for a more parsimonious and scope-free theory are left to develop a hypothesis that would address this theoretical gap.

Carla O'Connor (2001) explores the gap when she argues that traditional sociology has ignored complexities of how racial identity positions people in the social world, particularly in research that reduces race to a variable in a model. Minority students both reflect and refract their identity. That is, they use both their own interpretations and others' responses to them in shaping their racial identities so their interpretations of racial identity are not uniform. Structural theories like Ogbu's fail to account for this within-group variation in identity (and by extension, achievement) because such theories are rendered as if class or race unilaterally positions a person in the social world (O'Connor, 2001). However, not all minority youth engage in oppositional culture, so when we explain achievement differences we must account for the contextual differences across schools, ability groups, class, gender, and families.

Taking a slightly different approach than O'Connor, Ann Ferguson (2000) sees identification with a race group or a peer group as a series of public commitments to a role. In studying the role of schools in determining students'

achievement, she finds that school labeling processes and punishment systems often steer black students, particularly males, to a life of delinquency while promoting white students' achievement. Thus, the good students in Ferguson's study, the ones expected to achieve, self-identified as multi-racial whereas the "bad boys" only identified as black even when they were multi-racial. The bad boys also rejected the school's functionalist discourse that attributed school success and failure to personal agency rather than societal structures (Ferguson, 2000); hence, the bad boys, the black males, believed that they were destined to fail not because of peer pressure to create an oppositional identity, but rather because school culture demands that students "act white" in order to achieve.

While components of both O'Connor's and Ferguson's theories appear to Ogbu's theory of oppositional culture, taken together O'Connor's and Ferguson's theses bring us to Ogbu's argument-- minority students adhere to a culture of opposition that contrasts white middle class values. However, as we understand from O'Connor and Ferguson, Ogbu incorrectly attributes the causal effects of an oppositional identity. Racial identity is not uniform as Ogbu claims, but using one's own interpretations and others' responses to them, many minorities of a particular race group may end up with a similar sense of racial identity. In other words, it may not matter if one is black and upper-class or black and lower-class; to the world s/he is viewed as black and internalizes this reaction. Thus, the world is seen as 'us' versus 'them.' In the same way, it may not matter if one is biracial black-white or mono-racial black; the perceptions of others and their

influence on racial identity may cause an adolescent to identify as black and to develop a black identity in opposition to the white middle class culture.

Mickelson (1990) also attempted to smooth the gap between Ogbu's theory and the empirical reality that shows not all minority students exhibit oppositional culture. She proposed her theory of concrete and abstract beliefs, showing that Ogbu's findings about academic performance among involuntary minorities can be explained by differences between blacks and whites in concrete beliefs regarding the chances for educational and occupational success. Abstract beliefs are those that individuals hold about the world in general while concrete beliefs are those that an individual holds about his/her own actual life situation. Although nearly all students hold the abstract belief that achievement in school is important to success in life, Mickelson showed that black students are much more likely than whites to have pessimistic concrete beliefs about their own personal abilities to secure the economic benefits of increased education. Thus, Mickelson shows that a good proportion of the test score gap is due to different concrete beliefs blacks and whites hold about the value of education. Her findings have been replicated on other monoracial samples (Steinberg, Dornbusch and Brown, 1992; Dillingham 1980).

Social structural explanations for the test score gap focus on students' demographic and psychological characteristics. For example, the scholars of status attainment (Blau and Duncan 1967, Haller and Portes 1973) show that family socioeconomic status, ability, prior achievement, aspirations, and role

models are the most significant predictors of educational and occupational attainment. Though their original research was done on middle- and working-class white Midwestern boys, more recent research suggests that the impact of these variables on attainment is different for other race and gender groups (Burke and Hoelter 1988; Howell and Frese 1979; Kerkhoff and Campbell 1977a 1977b). This later research found that SES had far less significance for black educational attainment whereas it was quite significant among whites. There is reason, therefore, to test how these variables behave in a model employing multi-racial subjects.

### *Multi-racial achievement*

The little research that exists on developmental outcomes for multi-racial students focuses on testing a 75-year-old theory developed by sociologists Robert Park (1928) and Everett Stonequist (1935). This “Marginal Man” theory suggests that mixed-race people are more prone to low self-esteem and its attendant problems because they are marginalized and isolated from *both* monoracial groups. Park (1928) gives ethnographic evidence of this isolation and shows how it affects occupational attainment. Stonequist theorizes about the consequences of divided loyalty for those ‘of mixed blood’:

“His racial status is continually called in question; naturally his attention is turned upon himself to an excessive degree: thus increased sensitiveness, self-consciousness, and race-consciousness, an indefinable *malaise*, inferiority, and various compensatory mechanisms, are common traits in the marginal person.” (Stonequist, 1935, p. 6).

Some developmental psychologists have examined the self-esteem of multi-racial people and report that multi-racial people are troubled and marginalized (Berzon 1978, Nakashima 1992, Gibbs 1987, 1998) while others have found that there is no psychological disadvantage associated with a multi-racial background (Phinney and Alipuria 1996, Field 1992, Grove 1991 Cauce et al, 1992).

However, there is little support for the idea that biracial youth fit the marginal man theory, particularly with regard to social distancing and its effect on achievement. Grace Kao (1999) found that social distance between groups does not cause low self-esteem among biracials, nor are they marginalized in school or among peers. David Harris' (2000) work shows that the social distance between component race groups does not have an impact on relative academic performance of those multi-racial groups. Thus, he concludes, "concerns about the hardships of being multiracial are largely unfounded (p. 17)."

A different argument claims that achievement is related to treatment by others which is based on social norms and cued, in part, by physiognomy—particularly for multi-racial people. The norm of hypodescent, also known as the one-drop rule, developed in the southern US during the era of slavery. It requires that a mixed-race person belongs to the group with the lowest social value among the race groups represented by his/her ancestry (see Root, 1997 for a full description). Current social norms governing racial and ethnic relations indicate that African Americans fall at the bottom of the social hierarchy, followed by Latinos and Asians, with non-Hispanic northern Europeans at the top.

Combining these norms, one can derive the hypothesis that mixed race people, especially to the extent that they have any black ancestors, fall toward the bottom of the social hierarchy, experience similar treatment as monoracial blacks, develop identities similar to those of monoracial blacks, and achieve in the same measure as the average black person.

Indeed, the way one is treated has an important impact on self-identification in the sense that if one is perceived as black, one is treated as black and is likely to self-identify as black (Herman, 2004). Of all mixed-race youth, those with some black or Latino heritage are far more likely to report being black or Latino than those with some white heritage are to report being white or those with some Asian heritage are to report being Asian. Therefore, I argue, being treated as black leads to a racial identification and set of developmental outcomes for part-black biracials that is very similar to those for monoracial black youth. If membership in a lower status race group is related to lower school performance for monoracial black and monoracial Latino youth, it is logical to wonder whether the same achievement relationship is found among multi-racial youth who *identify* as Latino or African-American.

The achievement of multi-racial students may be similar to that of the race group(s) with which they identify and/or it may be similar to the achievement of the race group in which others perceive them to be, but we cannot guarantee this to be true under all circumstances. The salience of racial identity as a determinant of achievement may vary according to the racial context. For

example, being black in an Advanced Placement class at a private school is different from being black at a low-performing public school, being black at a symphony is different from being black at a basketball game. As we see that the meaning of race changes with context, both in the way one is treated and how one self-identifies, we understand that race on its own is too simplistic of an indicator of achievement. Racial context may be a better tool for explaining achievement but the shifting significance of race is difficult to quantify.

The racial context varies according to the stereotypes salient in any situation. Adolescents, particularly those subject to negative racial stereotypes, find themselves either having to live up to the stereotypes or having to actively deny them (Lee 1996; Brown, Hamm, Herman, and Heck, 2003). This process of reacting to stereotypes is probably more complicated and potentially more difficult for multi-racial youth because they are prey to the stereotypes of multiple groups. However, actively denying the multiple stereotypes that apply to multi-racial youth can cause them to downplay the significance of race altogether and increase the significance of other influences on their behavior (Gaskins 1999). For example, rather than being expected to join an ethnically specific peer group, multi-racial youth may make more active decisions to identify with a particular reputation or activity-based peer group. Choosing one's peer group is an option for both monoracial and multi-racial youth, but multi-racials have more choices because of their multiple statuses. Whatever stereotypes are associated with the

chosen group then come to apply to the multi-racial person. This group of ideas leads to several testable hypotheses:

1. Multi-racial students with some black or Latino ancestry have lower achievement than multi-racial students with no Black or Latino ancestry.
2. Among multi-racial students with some black or Latino ancestry, those who *self-identify* as black or Latino have lower achievement than those who self-identify as white or Asian.
3. Racial identity is a strong factor in explaining the achievement of multi-racial students.
4. Racial context is a strong factor in explaining the achievement of multi-racial students.

## **Data**

### *Sample*

The survey population used in this study consists of all students in nine high schools in California and Wisconsin between 1987 and 1990. The survey was originally designed to study parenting styles, peer interaction, and academic achievement but the questionnaires also included many items relevant to the study of race and ethnic identity (Steinberg 1996). The survey sample included all students who were present in school on the day the survey was administered

except for a small percentage who refused to participate and those whose parents denied consent to participate. Usable questionnaires were obtained from approximately 80% of potential respondents. Herman (2004) provides details about the biracial subsample and its demographic characteristics. Of the 10,275 respondents, 8,732 (85%) reported a race for themselves and for both biological parents. Of the respondents who completed the items for their own and their parents' race, 1,496 (14.6% of the original sample<sup>5</sup>), were designated as biracial based on the reports of their parents' race(s). Of the mixed-race respondents, 45% are biracial and the remainder are multi-racial. All respondents who indicated their own race are included in the analyses.

Table 1 shows the distribution of biracial groups and the responses of multi-racial adolescents on the forced choice race question ("which race best describes you?"). Because respondents were only given a mono-racial option, it is not possible to determine which multi-racial respondents would have claimed a multi-racial identity and which would not. However, it is possible to compare multi-racial respondents who made different mono-racial claims. For example, of the 160 students in the "black-white" category, 68% reported being black, whereas only 16% reported being white, 7% reported a different race category and the remaining 9% did not respond to the forced mono-racial choice. The difference between choosing black and choosing white was statistically

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<sup>5</sup> 14.6% is high compared to the 2000 Census for California youth (7.3%) and Wisconsin youth (2.5%), in part because the census treats Hispanic as an ethnic group whereas this survey offered it as one of the race categories. If one could extrapolate mixed race from the Hispanic data on the census, the numbers would be much higher.

significant ( $p < .001$ ). The black-white students who chose a category other than black or white had multi-racial parents. The choice between white and the minority category were also significantly skewed toward the minority category ( $p < .001$ ) among white-Asians and white-Latinos, although not as much as the black-white category. The “double minorities” also favored the black category ( $p < .001$ ).

\*\*\*\*\* Table 1 approximately here \*\*\*\*\*

### *Measures*

Each theory of achievement described above suggests a regression model predicting achievement over time. The status attainment theory model includes measures of student-reported mean years of parents' education (SES), academic orientation of peers, educational aspirations, fatalism, school deviance, and prior achievement (grades). (See appendices A and B for verbal and statistical descriptions of all variables used in this study).

Measuring the concepts associated with the oppositional culture hypothesis using survey items is challenging because Ogbu's work on the theory is ethnographic. However, the variables in this oppositional culture model capture many of Ogbu's central concepts. These include educational expectations and school engagement--both of which would be associated with higher achievement--along with perceptions of ethnic discrimination by peers, teachers, and other adults, minority peer group membership, and positivity of

feelings about ethnic identity--which should all be associated with lower achievement.

Mickelson's (1990) argument about the negative effects of pessimistic concrete beliefs on *black* students' achievement (and on poor white students' as well) suggests a test among *multi-racial* students: do those multi-racial students who have some black ancestry have more pessimistic concrete beliefs about their own personal chances to succeed, given a good education? Mickelson's concepts of abstract and concrete beliefs map reasonably well onto this study's data using a question examining the difference between worrying about the occupational consequences of oneself not getting a good education (concrete belief, focused on the individual) and being convinced that getting a good education will help one secure a good occupation (abstract belief, true for everyone). In addition to concrete and abstract beliefs, this model includes variables measuring socioeconomic status, effort in school, and peer academic values. These variables, along with having positive concrete beliefs, are expected to be associated with higher achievement.

Lastly, this paper proposes a model that reflects the unique situation of biracial youth. Because they have no single racial identity, biracial youth may be less focused on their racial category as an indicator of their own and others' expectations for their academic achievement. Instead, they react to others' perceptions and categorizations of them, to the ethnic peer culture they choose (as opposed to the single ethnic peer culture monoracial youth are assumed to

experience), and to their unique perceptions of the potential they have to achieve in the wider social structure. These variables are assembled into a model of contextual effects which is loosely based on work showing that the quality of the home, school, neighborhood, and peer group contexts are associated with achievement among adolescents (Cook et al, 2002). However, the model in Cook et al focuses on the *quality* of contexts whereas this study focuses on the *racial demographics* of each context.

The outcome variable measuring achievement is student-reported grades. The fact that the grades are self-reported makes them slightly unreliable compared to transcript reports of these variables. However, separate analyses of these data (Dornbusch 1994) comparing student reports to transcript information for a 10% sub-sample of the students showed that student-reported grades by middle- and upper-ability students are mostly accurate (correlation of .76) while those with GPAs below 2.0 tend to inflate their grades somewhat. The grades variable in the current study is the average of four student-reported grades (social studies, English, math, and science), with grades in the first year of the survey as a control variable and grades in the second year as an outcome.

## **Methods and Results**

### *The racial hierarchy*

My first hypothesis was that students who have some black or Latino ancestry have lower grades than those who do not. To test it, I compared the

descriptive statistics for all the groups' grade point averages. Figure 1 provides some support for this hypothesis insofar as the average grades of all groups with some black and/or Latino heritage are considerably below the sample mean of 2.778 and all but two are significantly below it ( $p < .01$ ). Furthermore, the black-Latino group has the lowest grades of all groups and it is significantly below the average of both the monoracial black and monoracial Latino groups ( $p < .05$ ). Black-Latino students may be suffering under the double burden of whatever negative effects membership in each of these two race groups has on educational achievement. Mono white, biracial white-id, biracial black-id, monoblack/latino is the predicted hierarchy of mean concrete attitudes. Control for class.

\*\*\*\*\*Figure 1 about here\*\*\*\*\*

The second hypothesis was that biracial students who identify as black or Latino have lower grades than those who self-identify as Asian or white. To test it, I compared the grades of students in the same biracial category who self-identified differently. The comparison, in table 2, shows that the hypothesis is supported for some of the biracial groups. For example, the top section of table 2 shows that Latino-white students who identify as Latino have significantly lower grades (average GPA = 2.37) than those who identify as White (2.70), ( $p < .001$ ). White-identifiers also have significantly higher peer academic values than the

Latino-identifiers. The fourth section of table 2 shows that black-Asian students who report being black have significantly lower grades (2.14) than those who report being Asian (3.5) ( $p < .05$ ). There are no significant differences between the grades of Asian-Latinos who report being Asian and those who report being Latino, but the academic aspirations of the Asian-reporters are significantly higher ( $p < .01$ ). Similarly, there are no significant differences between black-white students who identify as black versus white on variables related to academics though there are some differences related to ethnic identity. The grades of Asian-whites who identify as Asian (3.15) are significantly higher than those who identify as white (2.76) ( $p < .01$ ). There are no significant differences in the grades of black-Latinos who report being black and those who identify as Latino. Thus, having black or Latino ancestry and self-identifying as black or Latino are both associated with decreased grades relative to not having or self-reporting these racial statuses.

\*\*\*\*\* Table 2 approximately here \*\*\*\*\*

### *Biracial vs. monoracial groups*

The third hypothesis examines whether ethnic identity is a strong factor in explaining achievement among multi-racial students. In particular, I was interested to compare the strength of ethnic identity as a factor in predicting achievement among multiracial versus monoracial students. In order to test this

hypothesis, I employed an autoregressive change model estimating grades at year 2 of the survey using: grades at year 1, SES, importance of ethnic background, educational aspirations, fears of the consequences of failing in school, and a biracial dummy variable. These variables represent the major concepts from each of the theoretically driven models described above<sup>6</sup>. The coefficient for this biracial dummy variable acts as an indicator of whether the multi-racial subset is significantly different from the monoracial subgroup to which it is being compared in this model. However, the model does not distinguish among the different biracial categories. The results (presented in Table 3) show that positive feelings about one's ethnic group are positively associated with achievement only among monoracial Latinos and monoracial whites. Achievement among blacks and Asians is not significantly related to ethnic identity.

\*\*\*\*\*Table 3 about here\*\*\*\*\*

If not ethnic identity, then what *does* predict the achievement of biracials? To answer this question I looked to existing theories of achievement. The models in this theory section are also auto-regressive change models, estimated in two different ways. First, I estimated a single model for each theory that included dummy variables for each race group, main effects for each theoretical

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<sup>6</sup> Results of this and all the other models are the same with and without including gender as a variable.

variable, and interactions of each race group with each main effect. These models allow meaningful comparisons across race groups. For a more parsimonious presentation, however, I estimated the models separately by race group. These two approaches are substantively identical and statistically very similar; I have noted in the text where the results differ. The results appear in table 4.

\*\*\*\*\*Table 4 about here\*\*\*\*\*

### *Status attainment*

According to the status attainment theory and its associated empirical literature, one would expect a weak but positive association between socioeconomic status and academic performance. In contrast, one would expect a stronger positive association between aspirations, peer values and educational performance or attainment (Haller and Portes, 1973). Kerckhoff and Campbell (1977a) found that this original Wisconsin model did not fit a black sample very well and that previous school achievement, fatalism, mother's education and current disciplinary record are much more important than father's education in predicting attainment among blacks. In my version of the status attainment model, I have included comparable measures of all the variables in both the Wisconsin model and the Kerckhoff and Campbell model.

The status attainment model fits quite well for biracial youth: nearly every variable is significantly related, in the expected direction, to achievement. I was

also able to replicate both the original and modified Wisconsin model findings among whites, at least in direction and significance (effect sizes vary somewhat). Both demographic and social psychological variables are significantly related to the achievement of white students. Fatalism has no significant impact on grades, but school deviance has a significant negative impact. In contrast to monoracial whites, none of the predictive variables in the model has a significant relationship with achievement for blacks except prior GPA which gives less of a boost to black achievement than it does for white students. Prior GPA is also significantly related to Asian achievement, along with aspirations and peer values, though these latter two are not significant in the interactions version of my model. The grades of monoracial Latino youth are negatively related to school deviance; also, educational aspirations are significantly related in the interactions version of the model though not in the model presented here.

### *Oppositional Culture*

Ogbu's (1986, 2003) work on oppositional culture suggests that involuntary minority youth (blacks and Latinos in this sample) have lower achievement than whites and Asians as a result of having low educational aspirations, peer values that denigrate educational achievement, disengagement from school, and a strong sense of identification with the ethnic group. My quantitative model attempts to replicate Ogbu's ethnographic work using the following variables: educational aspirations, peer educational values, class

cutting, effort put forth in school, and feelings about ethnic background. Because other theorists of race and achievement suggest that racism is to blame (Carew and Lightfoot 1979; Baron, Tom, and Cooper 1985), I also included a variable measuring perceived ethnic discrimination by teachers, peers, and others (racism) in my model. If Ogbu's theory is correct, ethnic discrimination and class cutting should have a significant negative relation to grade point average while the remaining variables should have a significant positive relationship among black and Latino youth but not among whites or Asians.

In contrast to Ogbu's findings, my work shows that with the exception of class cutting, none of the oppositional culture variables has a significant relation to later grades among monoracial black youth. Even without prior grades in the model, only educational aspirations and class cutting are significant. Contrary to Ogbu's contention that the grades of blacks students suffer when they have a strong ethnic identity, black students' grades are unrelated to their feelings about ethnic identity. The oppositional culture model does not work among Latinos, either: having a positive ethnic identity is actually associated with *higher* grades among Latino students. The Latinos in my sample are mostly Mexicans and Puerto Ricans; as such they would fit in Ogbu's classification of involuntary minorities. Yet the overall evidence from the students in my study does not support Ogbu's theory.

### *Educational attitudes*

An alternative to Ogbu's theory by Mickelson (1990; 2002) suggests that oppositional culture is not the reason why involuntary minority youth fare worse in school than whites. Rather, minority youth believe that they face a racist job market and this belief shapes both their academic aspirations and their achievement. The black youth in Mickelson's study espoused the belief that education generally helps people to realize greater occupational returns, but for themselves, personally, they did not expect education to pay off well and therefore applied themselves commensurately at school. Steinberg, Dornbusch and Brown (1992) tested Mickelson's hypothesis using a variable that measures the extent to which a respondent believes that failing to get a good education will hurt his/her chances of getting a good job (concrete belief). They found that this belief was strongly associated with academic achievement whereas believing that getting a good education will increase one's chances of getting a good job (more of an abstract, universal belief) was not significantly associated with achievement.

My model testing Mickelson's theory employs the same Steinberg et al. (1992) measures of concrete and abstract beliefs along with peer educational values. The results show that of these variables, only prior grades and effort in school are significant in predicting the grades of monoracial black students. That is, neither concrete nor abstract beliefs as measured here have a significant impact on the achievement of black students. However, concrete beliefs are significantly related to grades for biracials, monoracial Latinos, and monoracial

whites and abstract beliefs are not related to achievement among any group. Thus, my results show some support for Mickelson's theory insofar as concrete beliefs (as instantiated here) are associated with grades for some ethnic groups and abstract beliefs are not.

### *A contextual model*

Research suggests that changing contexts and the passage of time affect the ethnic identity of mixed-race people (Root 1997). If contexts are a source of variation in identity, it is logical that contexts have an important effect on the achievement of biracial youth. Four contexts with a significant impact on adolescent development are: the peer group, the school, the family, and the neighborhood (Cook et al, 2002). Cook and his colleagues focused on the quality of each context, but my contexts model uses variables that represent racial/ethnic aspects of each context and variables for which there was significant variation across races. For neighborhood context, I used racial and socioeconomic composition derived from 1988 census data. The school context variables are the percentage of whites among the student body and school deviance. For peer group context, the variables are membership in an ethnic crowd (as opposed to a reputation or activity-based crowd) and academic peer values. Family context measures include behavioral control, involvement in school, and psychological autonomy granted by parents; measures on which

there is statistically significant variation across race groups (see Steinberg, Dornbusch, and Brown 1992 for details).

The results show that the racial/ethnic aspects of contexts are important factors in achievement among adolescents, particularly for biracial youth. The school racial context variables (percent white in school, and school deviance) were significant predictors of biracial achievement, as were the peer crowd context variables of peer values and minority peer crowd membership. The neighborhood is also important: biracial youth in higher SES neighborhoods have significantly higher achievement. The racial composition of the neighborhood does not have an effect on achievement in any race group. The family context variables measuring parenting styles were not particularly effective in predicting biracial achievement although they did well for Asians: exercising behavioral control and granting psychological autonomy boosts the grades of monoracial Asians.

#### *Disaggregating biracial groups*

Although it is necessary to achieve statistical significance in regression models, it is somewhat disingenuous to group all the biracial groups in one large biracial category as they are quite diverse (black-white, black-Asian, Asian-Hispanic, etc.). However, separating the biracial groups from each other results in such small groups that it is impossible to make any significant statements about any individual group. Instead, I compared the biracial subgroups to their

component monoracial groups in order to understand differences in the determinants of achievement. For example, I compared biracial black-Asians to monoracial blacks. Thus, this last set of models compares each multi-racial group to its component monoracial groups using the theories presented above. These models are set up just like the theoretical models used above but each one includes a dummy variable for the biracial category in question and is estimated on a single biracial group with one of its monoracial components.

The results (not presented) show that the only biracial group that is statistically significantly different from its component monoracial groups is black-Asians. These youth have higher grades than those of monoracial blacks and lower grades than monoracial Asians. Perhaps the large social distance between monoracial blacks and Asians in the school context accounts for these significant differences. Or, perhaps the lack of significant differences between other groups in this set of models is simply due to sample size rather than substantive differences.

## **Discussion**

This study demonstrates that the hierarchy of achievement by race among multi-racial groups is comparable to one for monoracial groups: part-black and part-Latino youth fare poorly compared to part-white and part-Asian youth. Furthermore, multi-racial students who self-identify as black or Latino achieve less in school than those who identify as white or Asian. Yet, unlike much of the

literature on race differences in achievement, this paper shows that racial identity is not as strong a factor in explaining the achievement of multi-racial or mono-racial students. Only among Latino and white students is ethnic identity a strong factor and it has a positive relation to achievement. If not ethnic identity, then what factors predict achievement among biracial students?

**This paragraph doesn't really fit here but it needs to be said somewhere.** The analyses in this paper show that biracial youth respond to the racial dynamics of the contexts in which they live, particularly their neighborhoods and peer groups. While adolescents have great control over their choice of peers, they typically have very little choice over their public school and even less over their residential neighborhood. Parents have some more choice in school and neighborhood, but even these choices are constrained by income and housing discrimination, among other factors. Thus, while there are undoubtedly some selection effects in the findings on peer group context, there is probably very little endogeneity associated with the neighborhood effect.

However, it is important to consider biracial subgroups separately. Indeed, the only good reason to consider them as a whole group is because statistical tests show that not all of the biracial subgroups can be disaggregated from their component monoracial groups. Subgroup analyses show that only black-whites and black-Asians are significantly different from their respective monoracial component groups. To those familiar with the one-drop rule and the racial hierarchy of the United States, this finding should come as no surprise.

Part-blacks have less choice in the formation of their ethnic identities because society imposes the one-drop rule and prevents their choosing non-black identities more than it does part-Asians and part-Latinos. This conjecture is consistent with the fact that the outmarriage rate is lower for blacks than Asians or Latinos; essentially, blacks are more constrained in their social choices related to race than Asians and Latinos (Goldstein 1999). The conjecture is also consistent with my finding that there are no significant achievement differences between black-white students who identify as black versus white: with respect to academic matters, black-whites are probably considered and treated as blacks by their teachers and peers. Being treated as black undoubtedly influences their self-perceptions and their identity choices, which in turn influences their academic behavior and aspirations.

The implications of this finding for minority student achievement are serious. Recent research on the test score gap shows that minority students do better in school when they have more encouragement and less demandingness from teachers (Ferguson, 2002). Other research shows that students take schoolwork more seriously to the extent that they consider evaluations of the work to be soundly based; yet the evaluations teachers give to black and Latino students are far *less* soundly based than those given to white students (Natriello and Dornbusch 1984). To the extent that teachers treat multi-racial students as they do monoracial minority students, the policy implications would clearly be in favor of more teacher professional development training in the area of race and

achievement. Groups like the Minority Student Achievement Network, a consortium of 15 suburban school districts with heterogeneity in race as well as achievement are working on such training and development among teachers.<sup>7</sup>

The results of this paper show that the research on achievement and attainment, regardless of the race of the subject pool, misses some important concepts that would explain achievement among non-whites and those of mixed heritage. For example, the three theories analyzed here all predict that expectations of educational attainment play a role in achievement and yet this study finds that expectations explain considerably more among a white sample than a mixed or non-white sample. We need more universal theories to explain achievement among all race groups.

To test such theories we will need adequate datasets. Research on mixed race youth suffers from a lack of large representative samples with good measures of racial identity and behavioral outcomes. We need a sample that includes enough respondents from each biracial group to do meaningful comparisons between groups. We need surveys that explore students' racial self-identification allowing a mixed option along with choosing a default single best-race category. Ideally, such a survey would also include questions that assess the theories of achievement differences discussed in this paper along with other current theories such as differences in achievement motivation across race groups (Ferguson, 2002). Hopefully, such research would allow for a more

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<sup>7</sup> For more information, see [www.msanetwork.org](http://www.msanetwork.org)

nuanced test of the theories and a retest of the two main findings of this paper: that the average achievement of individual biracial groups falls somewhere between the means levels of their component monoracial groups' achievement, and that racial contexts, rather than ethnic identity explain the achievement of multi-racial youth.

Because existing theories of achievement do not fully explain the differences between monoracial groups, perhaps considering multi-racial youth will help researchers develop better theories. Culturally specific theories clearly only explain a small portion, if any, of the achievement gap between race groups. Theories that consider factors such as motivation, encouragement, and evaluation styles may be the best way to advance our understanding of this crucial question of what, after controlling for typical background and environmental characteristics, explains the remaining differences in achievement across race groups and multi-racial groups.

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Table 1: Percent of multi-racial respondents who select each mono-racial category

	Black	White	Asian	Hispanic	Other*	No choice	N	% of biracial sample
Black-Asian	57	15	7	7	7	7	60	1.80
Black-Hispanic	56	7	1	25	7	4	70	2.01
Other-Asian	11	14	23	15	37	1	89	3.07
Asian-Hispanic	13	15	15	40	12	5	101	3.48
Other-Hispanic	9	9	2	46	33	0	117	3.68
Other-Black	61	11	3	4	20	1	159	6.08
Black-White	68	16	1	2	4	9	160	10.70
White-Asian	4	33	43	6	10	4	298	16.71
Other-White	5	62	1	8	25	0	450	21.66
White-Hispanic	3	38	1	52	1	5	485	30.82
Total:							1,989	

\* Native American, Pacific Islander, Middle Eastern

Table 2: Statistically significant differences between biracial subgroups reporting different races

Variable		Reported Race	N	Mean	Std. Err.
<b>1. LATINO-WHITE</b>					
Ethnicity is important	***	WHITE	180	2.11	.08
		LATINO	244	2.47	.08
Perceived racism	***	WHITE	178	1.23	.04
		LATINO	237	1.47	.05
GPA	***	WHITE	175	2.70	.06
		LATINO	229	2.37	.06
SES	***	WHITE	164	3.23	.04
		LATINO	210	2.82	.06
Peer academic values	*	WHITE	130	3.10	.06
		LATINO	173	2.90	.06
<b>2. BLACK-WHITE</b>					
Ethnicity is important	**	BLACK	105	2.39	.12
		WHITE	24	1.71	.21
Feelings about ethnic group	**	BLACK	106	4.59	.12
		WHITE	25	3.72	.27
Concrete beliefs	*	BLACK	73	2.85	.08
		WHITE	15	2.20	.26
Permissive parenting	*	BLACK	109	.15	.03
		WHITE	25	.04	.04
<b>3. ASIAN-WHITE</b>					
Perceived racism	***	ASIAN	122	1.45	.06
		WHITE	95	1.21	.05
Authoritarian parenting	**	ASIAN	99	.11	.03
		WHITE	127	.23	.04
GPA	***	ASIAN	117	3.15	.06
		WHITE	90	2.76	.08
<b>4. BLACK-ASIAN</b>					
Authoritative parenting	**	ASIAN	34	.21	.07
		BLACK	4	.00	.00
GPA	*	ASIAN	4	3.50	.35
		BLACK	32	2.14	.17
<b>5. ASIAN-LATINO</b>					
Academic aspirations	**	ASIAN	16	5.13	.26
		LATINO	40	4.15	.23
Authoritarian parenting	*	ASIAN	16	.31	.12

		LATINO	40	.08	.04
SES	**	ASIAN	14	3.36	.17
		LATINO	33	2.70	.15

**6. BLACK-LATINO**

No significant differences

\* p < .05 \*\* p < .01 \*\*\* p < .001

**Table 3: Disaggregating biracials from each monoracial group**

	White		Black		Asian		Latino	
	Beta	Sig.	Beta	Sig.	Beta	Sig.	Beta	Sig.
Biracial	-.015		.077	**	.044	*	.028	
GPA1	.643	***	.564	***	.666	***	.579	***
SES	.045	***	.052	*	.006		.027	
Positive feelings about ethnic group	.040	**	.034		.006		.139	***
Academic aspirations	.078	***	.071	*	.065	**	.046	
Concrete beliefs	.071	***	.091	***	.062	***	.122	***
Biracial*positive feelings about ethnic group	-.033	*	.025		.021		.110	**
N	3341		982		1387		1164	
R2	.527		.405		.554		.417	

\* p < .05 \*\* p < .01 \*\*\* p < .001

**Table 4: Estimates of achievement at time 2, by theory and race group**

	White		Black		Asian		Latino		Biracial	
	Beta	Sig.	Beta	Sig.	Beta	Sig.	Beta	Sig.	Beta	Sig.
<b>Status Attainment</b>										
GPA1	.648	***	.459	***	.696	***	.533	***	.585	***
SES	.051	***	.082		.013		.043		.032	
Peer academic values	.047	***	.001		.078	**	.036		.093	**
Academic aspirations	.083	***	.036		.073	*	.034		.088	*
Fatalism	.030	*	.012		.041		.063		.040	
School misconduct	.053	***	.039		.015		-.175	***	-.088	**
N	2579		271		655		433		625	
R2	.534		.230		.546		.343		.460	
<b>Oppositional Culture</b>										
GPA1	.644	***	.452	***	.710	***	.485	***	.619	***
SES	.051	***	.083		.009		.021		.032	
Peer academic values	.041	***	.007		.078	**	.057		.108	***
Academic aspirations	.076	***	.044		.077	**	-.008		.082	*
Positive ethnic ID	.031	*	.023		.002		.148	***	-.004	
Perceptions of racism	.005		.075		.037		-.039		-.003	
Cutting class	.024		.015		.034		-.107	*	.076	*
Effort in school	.049	***	.112	*	.025		.094	*	.027	
N	2628		288		655		397		650	
R2	.534		.225		.546		.353		.456	
<b>Concrete/Abstract Beliefs</b>										
GPA1	.672	***	.456	***	.718	***	.522	***	.608	***
SES	.066	***	.088		.003		.012		.049	
Peer academic values	.045	***	.005		.087	**	.054		.104	***
Effort in school	.046	***	.110	*	.009		.095	*	.020	
Concrete beliefs	.062	***	.019		.048		.134	***	.120	***
Abstract beliefs	.042	**	.004		.012		-.013		-.005	
N	2667		288		655		433		650	
R2	.532		.223		.542		.339		.462	

**Contexts**

GPA1	.672 ***	.473 ***	.694 ***	.517 ***	.604 ***
SES	.054 ***	.112	.027	.018	.037
Peer academic values	.046 ***	.009	.086 **	.014	.103 ***
Minority peer crowd	.013	.045	.046	-.007	-.063 *
Percent white in school	.024	.077	.053	-.053	.068 *
School misconduct	.046 ***	.057	.002	-.169 ***	-.079 *
Percent white in neighborhood	.011	.164	.041	.044	-.016
Neighborhood SES	.019	.071	.030	.045	.121 ***
Parental behavioral control	.023	.107	.103 ***	.085	.071 *
Psychological autonomy	.010	.025	.102 ***	-.024	-.042
Parental involvement	.037 *	.014	.010	.034	-.053
N	2244	174	599	362	625
R2	.530	.199	.561	.351	.481

\* p < .05 \*\* p < .01 \*\*\* p < .001

Figure 1 goes here.

## Appendix A: the variables used in this study

The GPA1 variable is the average of eight unweighted, student-reported, grades (social studies, English, math, and science) over two semesters.

The GPA2 variable is calculated the same way as year one, using the second year's grades.

SES is the average of a respondents parents' years of education scaled as follows: 1 = high school degree or less, 2 = some college, 3 = bachelor's degree, 4 = graduate or professional degree.

The importance of ethnic identity variable measures "how important is it that others know your ethnic background?" and the response categories range on a 5 point scale from "not at all important" to "extremely important." The positivity of ethnic identity variable measures "how do you feel about your ethnic background?" on a six point scale of "strongly negative" to "strongly positive."

The academic aspirations variable measures "what is the highest level you expect to go in school?" with response categories of: quit high school, finish high school, some college, two year degree, four year degree, and graduate degree.

The academic orientation of peers variable is a response to the question "among your friends, how important is it to a) finish high school, b) get good grades, and c) go to college?" The response categories ranged on a four point scale from "extremely important" to "not at all important."

The parenting style variables include authoritative, authoritarian and permissive parenting styles. These variables are described in detail in Dornbusch, et al., 1987.

The school engagement variables are as follows. Trying hard in school is the mean of answers to four items "How hard do you try in a) math, b) English, c) social studies and d) science?" Response categories were "1) every day, 2) a few times per week, 3) once a week, 4) very rarely, and 5) never." The cutting class variable was the mean response to "How often do you cut class?" for each of the four subjects listed above. Responses were "1) never, 2) a few times per year, 3) a few times per month, 4) a few times per week, 5) almost every day."

Fatalism is the sum of responses to items asking students whether they attributed luck, as one of many factors, to the outcome of their good or bad grades.

Perceptions of ethnic discrimination is the mean of responses to the question “how often has a a) teacher b) peer c) other adult been unfair to you because of your ethnicity?” Response categories were on a five point scale of “almost never” to “almost always.”

Minority peer group membership is a binary variable indicating whether the respondent would categorize him/herself as a member of an ethnic minority crowd (Asians, Chinese, Filipinos, Mexicans, Blacks, Hispanics, Latinos, Vietnamese, Pacific Islanders, etc.) or a reputation/activity crowd (jocks, brains, populars, partyers, etc.) See Brown, Hamm, Herman, and Heck (2003) for details.

Concrete and abstract educational beliefs were responses to the questions: “How likely is it that you’ll get the job you hope for if you don’t get a good education?” and “how likely is it that you’ll get the job you hope for if you do get a good education?” Response categories were on a four point scale of “very likely” to “very unlikely.”

Photo appearance was coded from yearbook photos of all biracial respondents. See Herman (2001) for details.

Neighborhood racial and socioeconomic variables were derived from 1988 census tract data corresponding to students’ home addresses (provided by the schools). The variables used were average household income and percent of each race group in tracts.

School deviance is the mean of three items scaled “never, once or twice, several times, or often”: in the past school year how often have you 1) copied homework or a class assignment from somebody else, 2) cheated on a class test, or 3) come to class late.

See appendix B for descriptive statistics by race category.

## Appendix B: descriptive statistics of study variables, by race category

	black	white	Asian	Latino	black- white	black- Asian	black- Latino	white- Asian	white- Latino	Asian- Latino	Total	N
Percent white in school	.492 (.137)	.574 (.099)	.586 (.081)	.584 (.093)	1.691 (10.53)	3.673 (17.25)	.562 (.112)	3.242 (15.70)	4.514 (18.96)	.616 (.041)	1.148 (7.418)	1
Percent white in n'hood	.457 (.333)	.856 (.115)	.751 (.143)	.682 (.194)	.711 (.230)	.709 (.276)	.681 (.230)	.784 (.148)	.787 (.141)	.686 (.183)	.784 (.185)	
GPA year 1	2.433 (.757)	2.874 (.794)	3.168 (.753)	2.450 (.814)	2.601 (.784)	2.483 (1.098)	2.234 (.865)	2.948 (.768)	2.515 (.831)	2.585 (.795)	2.789 (.829)	
GPA year 2	2.496 (.678)	2.929 (.777)	3.142 (.745)	2.528 (.794)	2.593 (.767)	3.182 (.643)	2.292 (.674)	2.952 (.819)	2.605 (.667)	2.594 (.701)	2.850 (.793)	
Peer academic values	3.262 (.740)	2.961 (.788)	3.264 (.768)	3.083 (.794)	2.957 (.803)	2.952 (.994)	3.167 (.868)	3.037 (.846)	2.992 (.815)	3.232 (.668)	3.042 (.801)	
Perceived ethnic Discrimination	1.726 (.807)	1.194 (.459)	1.612 (.717)	1.606 (.798)	1.733 (.954)	2.143 (1.362)	2.056 (1.133)	1.376 (.652)	1.380 (.690)	1.327 (.638)	1.374 (.662)	
Class cutting (total)	1.417 (.800)	1.420 (.712)	1.354 (.691)	1.607 (.882)	1.572 (1.004)	2.067 (1.528)	1.997 (1.220)	1.522 (.811)	1.541 (.825)	1.760 (.934)	1.459 (.774)	
Trying hard in school	4.006 (.849)	3.805 (.889)	4.019 (.848)	3.998 (.830)	3.637 (.876)	3.494 (1.517)	3.819 (.809)	3.880 (.827)	3.943 (.854)	3.913 (.856)	3.873 (.884)	
School misconduct	2.316 (.640)	2.418 (.683)	2.126 (.693)	2.286 (.714)	2.551 (.745)	2.690 (1.042)	2.372 (.779)	2.377 (.727)	2.337 (.692)	2.492 (.679)	2.354 (.701)	
Fatalism SES (mean years Of parent education)	.113 (.155)	.117 (.158)	.098 (.157)	.115 (.155)	.111 (.146)	.136 (.199)	.165 (.215)	.108 (.136)	.129 (.162)	.122 (.139)	.115 (.159)	1
Importance of ethnicity	3.109 (.694)	3.401 (.635)	3.262 (.884)	2.375 (1.032)	3.263 (.735)	3.040 (.935)	2.913 (.915)	3.326 (.755)	2.969 (.812)	2.720 (.834)	3.217 (.802)	
Positive feelings about ethnicity	2.462 (1.296)	1.814 (.994)	2.472 (1.150)	2.584 (1.268)	2.253 (1.266)	2.700 (1.622)	2.816 (1.409)	2.202 (1.179)	2.290 (1.177)	2.346 (1.064)	2.103 (1.153)	
Educational expectations	4.576 (1.372)	4.510 (1.026)	4.259 (1.246)	4.483 (1.327)	4.333 (1.292)	4.167 (1.642)	4.245 (1.726)	4.211 (1.227)	4.430 (1.180)	4.346 (1.186)	4.462 (1.156)	
Concrete beliefs	4.524 (1.338)	4.782 (1.196)	5.007 (1.113)	4.032 (1.433)	4.763 (1.301)	4.467 (1.717)	4.115 (1.700)	4.855 (1.186)	4.287 (1.358)	4.278 (1.379)	4.665 (1.282)	
Abstract beliefs	2.627 (.833)	2.599 (.838)	2.690 (.803)	2.539 (.830)	2.735 (.855)	2.786 (.975)	2.400 (.894)	2.621 (.837)	2.542 (.844)	2.463 (.745)	2.598 (.836)	
Minority peer crowd	1.528 (.709)	1.540 (.648)	1.533 (.689)	1.529 (.710)	1.731 (.884)	1.786 (.975)	1.233 (.430)	1.515 (.677)	1.523 (.665)	1.429 (.501)	1.539 (.681)	
N	.104 (.306)	.003 (.054)	.081 (.273)	.148 (.356)	.075 (.264)	.100 (.305)	.154 (.364)	.024 (.153)	.041 (.199)	.109 (.315)	.043 (.202)	1
	834	5840	1381	1273	160	30	52	250	461	55	10336	

**Biography:** Melissa R. Herman is Assistant Professor of Sociology at Dartmouth College. Her current research considers identity and developmental outcomes among biracial youth.