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The Impact of Education on Inter-Group Attitudes: A Multiracial Analysis

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Abstract

How does education affect racial attitudes? Past studies focus almost exclusively on Whites' attitudes toward Blacks, neglecting important minority populations. This study extends previous research by analyzing the effects of education on beliefs about racial stereotypes, discrimination, and affirmative action policies among Whites, Asians, Hispanics, and Blacks. Results indicate that Whites, Hispanics, and Blacks with higher levels of education are more likely to reject negative stereotypes, but these effects are less consistent among Asians. And, although education has consistent positive effects on awareness of discrimination against minorities, a more advanced education is not associated with greater support for racial preferences among any respondent group. Education is, however, related to more favorable attitudes toward race-targeted job training. These results are partly consistent with a revised group conflict perspective positing that education unevenly promotes different elements of the dominant racial ideology among nonwhite minorities, depending on their position in the racial hierarchy.

Keywords

racial attitudes; education; group conflict; stereotypes; affirmative action

The impact of education on racial attitudes is a contested topic in the social sciences. On one side of the debate, education is depicted as having a profound liberalizing influence on inter-group attitudes (Apostle et al. 1983; Hyman and Sheatsley 1964; Hyman and Wright 1979; Hyman, Wright, and Reed 1975; Quinley and Glock 1979). According to this perspective, an advanced education promotes a more enlightened world outlook, characterized by a heightened commitment to democratic norms of equality and tolerance of racial out-groups. A large body of empirical evidence supports this view, showing that highly educated Whites are more likely to reject negative racial stereotypes, agree with structural explanations for Black-White inequality, and endorse principles of equal treatment (Schuman et al. 1997).

Despite evidence of a positive association between education and a number of egalitarian racial attitudes, an important inconsistency remains: studies find that highly educated Whites are no more likely than less educated Whites to support specific policies designed to overcome racial inequality (Jackman 1978; Jackman and Muha 1984; Schuman et al. 1997). An alternative theory that attempts to account for this inconsistency, the ideological refinement perspective, views education not as enlightening but rather as an institution that endows dominant groups with a keen awareness of their group interests, more advanced cognitive skills, and a set of ideological commitments that enable them to articulate an astute defense of their privileged position in the social hierarchy (Jackman and Muha 1984).

Without support for concrete measures to restructure relations of inequality, the positive effects of education on inter-group tolerance and egalitarian principles represent little more than “slopes of hypocrisy,” glaring examples of educated Whites’ more sophisticated defense of the status quo (Schuman et al. 1997:304).

A critical weakness of both the enlightenment and ideological refinement perspectives is that they are based almost entirely on the attitudes of White Americans (but see Kane and Kyyro 2001 for an important exception). Because research about the impact of education on racial attitudes has largely failed to consider the perspectives of racial minorities, especially that of Hispanics, now the largest minority group in the country, and Asians, it remains unclear whether extant theory can account for the attitudinal effects of education in a multiracial context. Does education enhance awareness of group interests among racial minorities, molding sharper critics of negative stereotyping and discrimination as well as strong supporters of remedial policies for racial inequality? Or, does the formal education system promote the refined racial ideology of the dominant group, designed to quell inter-group conflict and subvert concrete efforts to overcome racial inequality, even among minorities whose group interests may conflict with elements of this belief system? Perhaps the attitudinal effects of education are still more complex, depending on a group's relative social position and the interests linked to it.

This study extends research on education and inter-group attitudes with a multiracial analysis. Specifically, it analyzes the effects of education on attitudes about racial stereotypes, discrimination, and affirmative action policies using large samples of Whites, Asians, Hispanics, and Blacks. By analyzing the views of multiple racial groups simultaneously, the study allows for more sophisticated and discerning tests of competing theoretical perspectives and thus provides a deeper understanding of the interplay between education, ideology, and group position. This research builds on prior multiracial analyses examining beliefs about poverty (Hughes and Tuch 2000; Hunt 1996), explanations for Black-White inequality (Hunt 2007), perceptions of inter-group competition (Bobo and Hutchings 1996), and static group differences in racial policy attitudes (Bobo 2000; Lopez and Pantoja 2004).

To provide a foundation for the discussion of education and inter-group attitudes in a multiracial context, I begin by reviewing theoretical perspectives on education and racial attitudes derived from research on Whites’ attitudes towards Blacks. Next, I adapt these theories for minority groups, focusing on how relative position in the racial hierarchy may modify the attitudinal effects of education. Then, using data from the 1992–1994 Multi-City Study of Urban Inequality and the 1990–2010 waves of the General Social Survey, I estimate and compare the effects of education on negative racial stereotypes, perceptions of racial discrimination, and support for two different affirmative action policies—racial preferences in hiring decisions and race-targeted job training programs—among Whites, Asians, Hispanics, and Blacks.

The results from this analysis indicate that simple adaptations of the enlightenment and ideological refinement perspectives cannot account for the effects of education on inter-group attitudes in a multiracial context. Rather, the results are more consistent with a revised ideological refinement perspective positing that education unevenly promotes different elements of the dominant group's legitimizing ideology among nonwhite minorities, depending on their position in the racial hierarchy. The complex effects of education documented in this study resonate with calls for more explicit examination of public opinion among racial minorities (e.g., Bobo 2000; Hunt et al. 2000), lest research on inter-group attitudes perpetuate limited theories based on the worldview of a shrinking White population.

EDUCATION AS ENLIGHTENMENT

That education has a liberalizing impact on racial attitudes is a cultural axiom in the U.S., and much research on temporal trends in racial attitudes credits higher levels of education among younger cohorts as the primary source of progressive change in Whites' attitudes. For example, Hyman and Sheatsley (1956:39) remarked that the trend toward acceptance of racial integration was likely to accelerate because of "the continued influx of better educated and more tolerant young people into the effective adult public." More recent studies echo similar sentiments (e.g., Farley et al. 1994; Kluegel and Smith 1986). Enlightenment theory is premised on the notion that negative inter-group attitudes arise from narrow-minded, poorly informed, and undemocratic world outlooks; ethnic prejudice is seen as "an antipathy based upon a faulty and inflexible generalization" (Allport 1958:9). An advanced education attenuates prejudice and fosters a real commitment to racial equality by providing knowledge about the historical, social, and economic forces responsible for inequality; teaching the dangers of prejudice; neutralizing fear of the unknown; promoting democratic norms of equality and civil rights; and facilitating contact between racial groups (Hyman and Wright 1979; McClelland and Linnander 2006; Quinley and Glock 1979; Schaefer 1996).

A large body of empirical evidence is consistent with the claims of enlightenment theory. Highly educated Whites are more likely than their poorly educated counterparts to reject negative racial stereotypes, accept residential and school integration in principle, attribute racial inequalities to structural causes, be more perceptive of racial discrimination, and support democratic norms of equality (Apostle et al. 1983; Farley et al. 1994; Schuman et al. 1997). In addition, several recent studies link more progressive racial attitudes to specific mechanisms within postsecondary institutions, such as enrollment in multicultural classes and contact with minority students and faculty (McClelland and Linnander 2006; van Laar, Sidanius, and Levin 2008). There is, however, an important inconsistency in the evidence supporting the enlightenment approach: compared to Whites with lower levels of education, educated Whites are no more supportive of affirmative action policies, including government interventions to integrate schools and racial preferences in higher education and the workplace (Jackman 1978; Jackman and Muha 1984; Schuman et al. 1997). An alternative explanation for the inconsistent relationship between education and Whites' racial attitudes, the ideological refinement perspective, stems from group conflict theory and directly challenges a number of conventional assumptions about negative inter-group attitudes and formal educational institutions.

EDUCATION AS IDEOLOGICAL REFINEMENT

Group conflict involves "a struggle over...claims to status, power and other scarce resources in which the aims of the [competing] groups are not only to gain the desired values, but also to affect, change or injure rivals" (Bobo 1988:91). Within this competition, distinct social groups are stratified in a hierarchy based on inequalities of power, and conflicting groups have objective interests based on the "shared advantages or disadvantages likely to accrue to a group" as a result of their position in the social hierarchy (Bobo 1988; Tilly 1978:54). The dominant group (e.g., Whites) controls a disproportionately large share of valued resources, such as wealth and political power, while subordinate groups (e.g., Blacks) are denied a commensurate share. Furthermore, dominant groups have a vested interest in maintaining their privileged status, and to achieve this end, they develop ideologies that legitimize their social position and mollify subordinate group challenges to the status quo.¹

Based on group conflict premises, the ideological refinement perspective argues—in paraphrase and modification of Jackman and Muha (1984)—that an advanced education

cannot be seen as an enlightening agent because it does not liberate individuals from their group interests. Education does, however, equip dominant group members “to promote their interests more astutely—indeed, to become state-of-the-art apologists for their group's social position” (Jackman and Muha 1984:752). According to this view, overt prejudice was once an integral part of dominant group efforts to maintain existing relations of inequality, but after the Civil Rights Movement, negative stereotypes and open expression of racism became too inflammatory for inter-group relations and thereby ceased to be effective ideological weapons. An advanced education allows dominant group members to articulate a more refined legitimizing ideology based not on assertions of categorical group differences but on the ostensibly race-neutral values of individualism and meritocracy. These values provide dominant group members with a seemingly principled means to deny the validity of group-based remedial policies and transform them into weaker measures consistent with individual rights. In the context of an inter-group competition, however, the provision of equal individual rights and meritocratic standards conveys a major competitive advantage to the dominant group and effectively perpetuates their privileged status. Education, therefore, does not promote a real commitment to racial equality, as hypothesized by enlightenment theory, but rather confers upon members of the dominant group an enhanced ability to justify current relations of inequality and subvert more radical challenges to their privileged social position.

Consistent with the ideological refinement approach, many studies of Whites’ racial attitudes find that education is positively associated with tolerance of racial out-groups and support for abstract principles of equality, yet negatively associated with support for specific group-based remedial policies, such as government-enforced school integration and racial preferences (Jackman 1978; Jackman and Muha 1984; Schuman et al. 1997).² More recent evidence suggests that the relationship between education and racial policy attitudes is more complex. Schuman and colleagues (1997) document a non-monotonic, U-shaped association between education and support for racial preferences in hiring and promotion, where Whites with a high school education or some college are the least supportive of these policies. In addition, Glaser (2001) suggests that educated Whites may be more supportive of racial preferences in the labor market because they are relatively insulated from minority competition; nonetheless, Whites with an advanced education react decisively against policies that threaten resources anchoring their class position (e.g., access to universities). Thus, research indicates that the intensity of group competition varies by level of education and that different policies are not equally threatening to all members of the dominant group.

GROUP CONFLICT, EDUCATION, AND MINORITY RACIAL ATTITUDES

The enlightenment and ideological refinement perspectives focus on patterns in the relationship between education, Whites’ beliefs about Blacks, and Whites’ support for policies in which Blacks represent the typical beneficiary group. It remains unclear whether either theory can be adapted for the study of education effects on inter-group attitudes in a diverse social context with multiple racial groups.

¹There are many variants of the general group conflict model, including realistic group conflict theory (Campbell 1965), group position theory (Blumer 1958), and social dominance theory (Sidanius 1993), that share the core ideas outlined here, but ideological refinement theory is the only variant to explicitly address the effects of education on racial attitudes.

²Several social psychological theories address a similar paradox involving temporal changes in Whites’ racial attitudes: over time, overt racism has declined, but support for policies designed to redress racial inequality remains low. Symbolic racism (Kinder and Sears 1981), racial resentment (Kinder and Sanders 1996), subtle racism (Meertens and Pettigrew 1997), and covert racism (Sigall and Page 1971) argue that a “new racism” has emerged among Whites that is not captured by traditional measures of prejudice. These theories are primarily descriptive, and as such, they do not provide a framework for analyzing the effects of education. Moreover, that a “new racism” emerged among Whites is consistent with ideological refinement theory, which predicts modification of the prevailing racial ideology when the privileged position of dominants is challenged.

In a multiracial context, group interests are more complex because competition over resources cannot be reduced to a simple Black-White, dominant-subordinate binarism. Rather, multiple racial groups are stratified in a power hierarchy. In the U.S., Blacks are situated economically, politically, and socially at the bottom of the racial hierarchy, while Whites are at the top; Asians, followed by Hispanics, are thought to fall somewhere in the middle (Feagin 2000; Lee and Bean 2007; Song 2004), although the relative positioning of these groups remains an unsettled question. For example, Hispanics are more disadvantaged than Blacks, and Asians more advantaged than Whites, on several socioeconomic indicators (Friedman and Rosenbaum 2007; Kao and Thompson 2003; Quillian 2006). There are also large differences by nativity and national origin within these broad racial categories, where some Asian and Hispanic subpopulations appear closer to the social position of Whites, while others occupy a position similar to that of Blacks (Bonilla-Silva 2004; Portes and Zhou 1993). Thus, it is no simple matter to identify the interests of groups that occupy intermediate, or perhaps indeterminate, positions in the racial hierarchy.

At a simple level, nonwhite groups in the U.S. share the experience of racialization, discrimination, and exploitation. In this sense, they occupy a disadvantaged position in the social hierarchy and have an interest in restructuring relations of racial inequality. Insofar as an advanced education allows individuals to become astute advocates for their group interests, educated minorities may be more sophisticated social critics: hostile to negative stereotyping, perceptive of racial discrimination, and committed to policies designed to redress racial inequality. Thus, among racial minorities, education may have attitudinal effects similar to the pattern predicted by enlightenment theory. But to the extent that these attitudes are linked to group interest advocacy, “enlightenment” is a misnomer, and this pattern of education effects is more accurately conceptualized as “empowerment” (Kane and Kyyro 2001:713).

Although education would seem to promote an enhanced cognizance of group interests among racial minorities, the formal educational system is the primary apparatus through which the dominant group's legitimizing ideology is propagated (Althusser 1971). Subordinate group members with a higher education have received more advanced intellectual training, but they have also received greater exposure to the “dominant creed” (Jackman and Muha 1984:761). A formal education, therefore, may not foster a more sophisticated critique of inequality among racial minorities but rather impart a stronger commitment to the dominant racial ideology, elements of which are largely inconsistent with subordinate group advancement. In particular, individualistic and meritocratic ideals promoted by formal educational institutions may have a countervailing influence on the values of group rights and group-based equality, and potentially attenuate the empowering effects of education. Consistent with this view, several empirical studies—although limited by a variety of design problems—provide evidence that well-educated Blacks are no more likely than poorly educated Blacks to support racial preferences (Kane and Kyyro 2001; Schuman et al. 1997; Tuch, Sigelman, and Martin 1997).³ Thus, the effects of education predicted by ideological refinement theory are also a possibility among racial minorities, although this perspective might be more appropriately labeled “ideological alignment” when applied to intermediate or subordinate groups.

Hispanics and Asians further complicate the empowerment and ideological alignment perspectives because these theories are still based on a binary dominant-versus-subordinate conceptualization of group conflict. As mentioned previously, however, several researchers

³Although the effect of education on racial attitudes is not the focus of their analyses, Bobo (2000), Lopez (2004), and Hughes and Tuch (2000) report non-significant education coefficients from various models of racial policy attitudes based on pooled samples of Whites, Asians, Hispanics, and Blacks. Separate effects by race are not reported in these studies.

argue that Asians, and to a lesser extent Hispanics, occupy a position in the U.S. racial hierarchy between that of Whites and Blacks (Bonilla-Silva 2003; Lee and Bean 2007). Given some intermediate social position, these groups may be more disposed than groups at the bottom of the racial hierarchy to align themselves with the refined racial ideology of the dominant group. For example, meritocratic ideals may be more appealing to intermediate groups because they are better positioned than subordinates to benefit from their political realization. Indeed, several studies document static group differences in support for affirmative action policies that mirror the racial hierarchy—Whites are the least supportive, followed by Asians, Hispanics, and Blacks who are the most supportive (Bobo 1998; Bobo 2000; Lopez and Pantoja 2004). Based on the potential for similarity between the interests of dominant and intermediate groups, the effects of education on racial attitudes may also follow a hierarchical configuration, with well-educated Asians and Hispanics conforming more closely to the refined racial ideology of their White counterparts.

Other researchers contend that intermediate groups may not simply espouse views similar to Whites on one the hand or Blacks on the other (Bonilla-Silva 2003; O'Brien 2008). Rather, as a result of unique interests and tenuous status linked to intermediate positions in the social hierarchy, these groups may develop racial ideologies distinct from the belief systems of either dominant or subordinate groups. To secure some of the privileges associated with dominant group status and avoid downward assimilation, intermediate groups are motivated to socially distance themselves from those below them. For example, Hispanics and Asians may be more likely than Whites or Blacks to hold negative out-group stereotypes and to marginalize the role of discrimination in generating racial inequality, sometimes described as a trivial problem that “whining” and “complaining” Blacks sensationalize (Bobo and Johnson 2000; O'Brien 2008:63). The refined racial ideology of the dominant group, which is propagated through the formal education system, disclaims traditional racist stereotypes and thus may conflict with motives of intermediate groups to secure or advance their social position by denigrating subordinates. Among Asians and Hispanics, then, education may have little impact on the open expression of inter-group negativism.

HYPOTHESES

Several competing hypotheses emerge from the foregoing theoretical discussion. First, for the simple group interest (or empowerment) perspective, nonwhite groups are thought to occupy disadvantaged social positions from which emerge common interests in realizing a more equal distribution of resources. Whites, on the other hand, occupy the dominant social position and have an interest in protecting their privileged status. Education, according to this perspective, enables both Whites and racial minorities to become more astute advocates for their group interests. Thus, for nonwhites, education is expected to discourage negative stereotyping, enhance awareness of racial discrimination, and heighten support for affirmative action policies. For Whites, education is also expected to discourage negative stereotyping and enhance awareness of discrimination, but it is not expected to increase support for more radical affirmative action policies that threaten their disproportionate control of resources.

Second, for the simple ideological refinement (or alignment) perspective, group interests are again thought to be polarized, with Whites seeking to maintain their dominant position and nonwhite minorities striving for group-based equality. However, contrary to the simple group interest perspective, education is not thought to uniformly enhance awareness of group interests; rather, education is thought to promote the refined racial ideology of the dominant group, even among nonwhites whose group interests may conflict with this belief system. According to this approach, education is expected to discourage negative stereotyping and enhance awareness of discrimination, but it is anticipated to have no effect,

or perhaps a negative effect, on support for affirmative action policies that are inconsistent with individualism and meritocracy. These effects are expected not only among Whites but also among racial minorities.

Third, *the revised group interest perspective*, similar to the simple version of this approach, maintains that education promotes group interest advocacy, but it posits a different configuration of group interests than the White-nonwhite dichotomy on which the foregoing hypotheses are premised. Specifically, this perspective recognizes the potential for congruency between the interests of the dominant group, Whites, and those of nonwhite groups that occupy an intermediate position in the racial hierarchy. Because Asians and Hispanics may occupy a social position closer to Whites than to Blacks, the attitudinal effects of education among these groups are expected to be similar to those hypothesized for Whites. That is, for Asians and Hispanics, like Whites under the simple group interest scenario, education is expected to discourage negative stereotyping and enhance awareness of discrimination, but it is not expected to increase support for group-based redistributive policies that may be inconsistent with their more advantaged social position. For Blacks, by contrast, education is expected to increase support for redistributive policies because such measures are consistent with the interests linked to their disadvantaged status.

Finally, *the revised ideological refinement perspective* holds that education promotes the refined racial ideology of the dominant group even among nonwhites, but unlike the simple version of this theory, it allows intermediate groups to have unique interests that shape how different elements of this belief system are received and expressed. An important element of the dominant group's refined ideology involves the suppression of traditional racist stereotypes; yet because intermediate groups are highly motivated to avoid downward assimilation, they may rely on negative stereotyping to socially distance themselves from subordinates. According to this revised perspective, then, the effects of education are thought to be similar to those hypothesized under the simple ideological refinement approach except that education is not expected to discourage negative out-group stereotyping among Asians and Hispanics.

METHODS

Data

I use data from the Multi-City Study of Urban Inequality 1992–1994 (MCSUI) and the 1990–2010 waves of the General Social Survey (GSS). The MCSUI is a cross-sectional study based on multi-stage area probability samples of households in Detroit, Atlanta, Los Angeles, and Boston (Bobo et al. 2000). It oversampled census tracts and census blocks with high concentrations of Blacks, Hispanics, and Asians in order to generate large numbers of these respondents. A household survey was administered via personal interview, with raw response rates ranging from 68 percent to 78 percent in the four cities. I excluded a small number of respondents who identified as “other race” to yield a total analytic sample of 8,808 adults: 2,790 non-Hispanic Whites; 3,111 non-Hispanic Blacks; 1,783 Hispanics; and 1,124 Asians.⁴

The MCSUI has several important advantages over omnibus national opinion surveys commonly used for the analysis of racial attitudes, including large oversamples of racial minorities, multilingual questionnaires, and survey items that measure attitudes toward different minority groups separately. These features allow for a more comprehensive

⁴In the MCSUI, Asian respondents are almost entirely from Los Angeles and of Chinese, Korean, or Japanese ethnicity. The majority of Hispanic respondents from Los Angeles are of Mexican origin, while the Hispanic respondents from the Boston study are mostly Puerto Rican or Dominican. There are few Hispanic respondents in the Atlanta or Detroit samples.

analysis of education and inter-group attitudes in a multiracial context. The MCSUI is not without limitations, however. Of some concern is its limited geographic scope, where inferences from these data strictly apply to only the four metropolitan areas. To improve the generalizability of results, I also analyze nationally representative data from the GSS (Smith et al. 2011), an in-person survey of U.S. adults that contains several attitude measures similar to those used by the MCSUI. Specifically, I pool observations from the 1990–2010 independent cross-sections of the GSS to obtain information on 22,683 non-Hispanic Whites, 4,076 non-Hispanic Blacks, 2,363 Hispanics, and 538 Asians.^{5,6} Because the GSS uses a rotational, split-ballot survey design, where questions about racial attitudes are asked of only a random subset of respondents in selected waves, sample sizes vary by outcome and are much smaller for most analyses (see Tables 2–4).

Variables

Previous research on education and inter-group attitudes suffers from critical measurement limitations. Specifically, most past studies analyze racial attitudes that reference a single group—Blacks (e.g., Hunt 2007; Schuman et al. 1997; Tuch et al. 1997). This measurement strategy, however, does not capture the full range of attitudes that emerge in a multiracial context. The present study attempts to overcome this limitation by analyzing survey items that reference four racial groups separately in the question text.

I focus on response variables in three attitude domains: negative stereotypes, perception of discrimination, and racial policy. Appendix A provides the exact survey items used in this analysis. The first set of items, which reference Whites, Asians, Hispanics, and Blacks separately, measures common racial stereotypes related to work ethic and intelligence on ordinal scales ranging from 1 (lazy/unintelligent) to 7 (hard-working/intelligent). I collapse values on these scales into binary measures equal to 1 if the respondent chose a value on the side of the scale representing a more negative attitude, and 0 otherwise. To measure beliefs about discrimination, I use items from the MCSUI that ask whether Whites, Asians, Hispanics, and Blacks are discriminated against “a lot,” “some,” “only a little,” or “not at all” when trying to find a job. Comparable measures of discrimination attitudes are available in the 1990 wave of the GSS. These variables are recoded such that 1 represents responses of “a lot” or “some,” and 0 represents “only a little” or “not at all.” The last set of response variables measure racial policy attitudes. In the MCSUI, respondents were asked about their support for racial preferences in hiring and promotion decisions and race-targeted job training programs, with Blacks, Hispanics, and Asians referenced separately as the policy beneficiaries. The GSS includes a similar question about racial preferences targeting Blacks only. Attitudes toward these different policies are dummy coded, with 1 representing a favorable response, and 0 a neutral or unfavorable response.

Education, the independent variable of interest, is measured in years. The control variables included in multivariate analyses are gender, age, liberal-conservative political ideology, nativity, parents’ education, income, city or region, race of interviewer, and survey year. Gender is dummy coded, 1 for female and 0 for male, and age is measured in years. Political ideology is measured on an ordinal scale ranging from 1 for “extremely liberal” to 7 for “extremely conservative.” These response categories are collapsed into a series of dummies

⁵Following Hunt (2007), I identify Hispanic respondents in the 1990–1998 waves of the GSS as those who reported that their ancestors came from Mexico, Puerto Rico, Spain, or “other” Spanish origins—a composite category including individuals from Central and South America. GSS respondents between 1990 and 1998 are coded as Asian if they claimed ancestry from China, Japan, the Philippines, or “other” Asian origins. Beginning in 2000, the GSS adopted the measurement strategy for race/ethnicity used by the U.S. Census. Respondent race is identified on this basis for the 2000–2010 survey waves.

⁶Because the GSS did not conduct multilingual interviews until 2006, the target population prior to this wave is limited to English-speaking adults in the U.S. These language limitations likely produce Hispanic and Asian samples that are not nationally representative. Results from the GSS must therefore be interpreted with appropriate caveats.

representing “liberal,” “moderate” or “conservative” political views. Nativity is dummy coded to indicate that a respondent was born in the U.S. Measures of mother's and father's education are used to generate a series of dummy variables for the highest level of education completed by either parent. Income is measured in intervals, and values in real dollars are assigned based on the interval midpoints. Race of interviewer is a dummy variable indicating whether the respondent was interviewed by someone of the same race. The GSS does not attempt to match interviewer and respondent race. Thus, very few nonwhite respondents have same-race interviewers, and controls for this factor are excluded from analyses based on GSS data.

In addition, because of sample size limitations, more parsimonious parameterizations of several control variables are used to improve the efficiency of estimates in several cases. Specifically, in analyses of Asian and Hispanic respondents from the GSS, controls for survey year and region are excluded, and for all GSS respondents, political ideology is expressed as a single dummy variable for “liberal” (versus “moderate or conservative”), and parental education is coded as a single dummy variable for “at least some college” (versus “high school or less”). Missing values for all variables are simulated by multiple imputation with 25 replications (Royston 2005; Rubin 1987).⁷

Analysis

For each racial group, I estimate logistic regression models for the effect of education on negative racial stereotypes, perceptions of discrimination, and support for two different affirmative action policies, controlling for the factors described above.⁸ Parallel analyses are conducted with the MCSUI and GSS except where very small samples preclude the estimation of multivariate models—for example, with several measures of negative stereotypes, there are fewer than 60 Asian respondents in the GSS. Note also that because of sample size limitations, the GSS allows only imprecise estimates of education effects among Asians, Hispanics, and Blacks for some outcomes.

To investigate nonlinearity and heterogeneity in the effects of education on racial attitudes, I experiment with several different parameterizations of the education-outcome association. First, I fit models with linear, quadratic, and dummy variable specifications for years of education. The different specifications provide a comparable fit to the data in nearly all cases. Thus, for parsimony, I focus primarily on models with only a linear term for years of education and report more complex estimates only when there is very strong evidence of nonlinearity. Second, I fit models with interactions between education and a variety of respondent demographics, including age, gender, ethnicity, and nativity. Overall, there is little evidence of effect heterogeneity, although in many cases, this simply reflects limited statistical power owing to small numbers of respondents in certain demographic subgroups. For Hispanics and Asians, several models that allow separate effects of education by nativity status suggest differences between foreign-born and American-born respondents. These results are reported in Appendix B and mentioned in the text where relevant.

The MCSUI includes post-stratification weights designed to produce estimates representative of the adult population in the four study areas as established by the 1990 U.S. Census. The GSS also provides weights that adjust for subsampling of nonrespondents, a

⁷Multiple imputation replaces missing data with $m > 1$ values that are simulated from a model approximating the multivariate analyses to be performed. Each of the m simulated datasets are then analyzed separately using standard methods, and the results are combined to produce estimates and standard errors that account for the uncertainty associated with missing data. Results from all multivariate analyses are based on these combined estimates.

⁸Outcomes were also coded and analyzed as ordinal variables (results not shown). Proportional odds models of these measures yield results very similar to those from logistic regression analyses of the binary response variables described here.

cost-saving procedure introduced in 2006. Because multivariate analyses conducted with the weighted and unweighted samples do not differ substantially, results from the unweighted analysis are reported here. The Huber-White robust variance estimator is used to account for geographic clustering of respondents in the MCSUI.

RESULTS

Sample Characteristics

The sample characteristics summarized in Table 1 reveal stark racial differences. For example, Whites and Asians have substantially more education and income than both Blacks and Hispanics. There are also large differences in nativity between racial groups, with many more Hispanics and Asians born in foreign countries. In general, Whites and Blacks in the MCSUI are very similar to their counterparts from the GSS on the majority of measured characteristics. There are, however, some notable differences across studies among Hispanics and Asians: the GSS sample members are better educated, earn higher incomes, and are more likely to be native-born than respondents in the MCSUI. These disparities are likely due to a combination of factors, including geographic, linguistic, and temporal differences between the two data sources.

Racial Differences in Inter-Group Attitudes

Table 2 presents descriptive statistics about negative stereotypes by race. Several patterns are evident in these data. First, there is considerable target-group variation in negative stereotyping, with few respondents of any race holding negative views about Whites or Asians, but many questioning the work ethic and intelligence of Hispanics and Blacks. Second, there are large cross-race differences in stereotypical attitudes. Overall, White and Black respondents are less likely than Asian and Hispanic respondents to negatively stereotype racial out-groups. In fact, many Asian and Hispanic respondents report negative views about subordinate out-groups. For example, in the MCSUI, 76.2 percent of Asians and 66.8 percent of Hispanics say that Blacks prefer to live on welfare. Asian respondents also have negative perceptions of Hispanics: in the MCSUI, 48.8 percent say that Hispanics are unintelligent. Data from the GSS reveal a pattern of racial differences similar to that found in the MCSUI, although the overall level of negative stereotyping is lower in the GSS, as is the magnitude of racial variation. This could be due to cross-study differences in question wording, sample composition, geographic scope, or the timing of data collection. The extremely high levels of negative stereotyping found among Asians in the MCSUI, who are almost entirely from the Los Angeles area, could also be related to heightened racial tensions in that city following the 1992 Rodney King uprising.

Attitudes about racial discrimination, summarized in Table 3, also exhibit considerable racial and target-group variation. Perception of racial discrimination against minorities is widespread among all groups, but Whites and especially Asians tend to perceive lower levels of minority discrimination than Hispanics or Blacks. For example, 72.8 percent of Whites and 57.1 percent of Asians in the MCSUI say that Blacks face discrimination compared to 79.5 percent and 93.3 percent of Hispanics and Blacks, respectively. There are also large target-group differences in levels of perceived discrimination, where respondents are more likely to say that Blacks and Hispanics, rather than Asians and Whites, encounter discrimination. About one third of Whites in the MCSUI report discrimination against their in-group, and very few minority respondents say that Whites suffer from labor market discrimination. In addition, Blacks and Hispanics appear especially likely to report high levels of discrimination against their respective in-groups, suggesting that respondent and target group race interact to influence attitudes about discrimination.

Table 4 presents descriptive statistics about racial policy attitudes. The first pattern to emerge from these data is that respondents of all races are far more supportive of special job training than they are of racial preferences. This may reflect the greater consistency of special job training, an opportunity-enhancing policy, with individualistic and meritocratic ideals. Support for both policies, when Blacks are the targeted beneficiary, mirrors the racial hierarchy: Black respondents have the most favorable attitudes, Whites have the least favorable, and Asians and Hispanics fall somewhere in between. This pattern holds in both the MCSUI and GSS, although support for racial preferences is much lower overall among GSS respondents, possibly due to differences in question wording, sample composition, or downward temporal trends in policy support. For policies targeting Hispanics and Asians, Whites have the least favorable attitudes, followed by Asians, with support among Hispanic respondents comparable to or exceeding that of Blacks. Within respondent groups, racial policy attitudes also exhibit considerable target-group variation. White, Black, and Hispanic respondents in the MCSUI have less favorable attitudes toward policies targeting Asians. In addition, for nonwhite sample members, especially Blacks and Hispanics, policy support is most pronounced when respondents evaluate programs for which their racial in-group is the targeted beneficiary.

The descriptive statistics presented here provide an overview of inter-group attitudes in a multiracial context. The hierarchical racial differences and patterned target-group variation in policy support are consistent with group conflict theory, that is, policy attitudes are closely related to group social position and the interests linked to it. Negative stereotyping and perceptions of discrimination are also related to group position, but with these attitudes, racial differences do not follow the status gradient. Rather, groups thought to occupy positions in the middle of the racial hierarchy—Asians, and to a lesser extent, Hispanics—are much more likely to report negative views about subordinate out-groups. Asians also tend to be least likely to say that discrimination harms minorities, followed by Whites, with Hispanics and Blacks reporting higher levels of racial discrimination. These patterns suggest that intermediate groups may attempt to secure or maintain status distinctions by negatively stereotyping those below them in the racial hierarchy or by denying the importance of discrimination against nonwhite minorities.

Effects of Education on Inter-Group Attitudes

Table 5 presents log odds ratios for the net effects of education on negative racial stereotypes. The letters printed next to coefficient estimates encode the results of likelihood ratio tests comparing the effects of education across racial groups. These results suggest a general pattern of racial differences: education has a strong negative impact on stereotypical attitudes among Whites, virtually no impact on these attitudes among Asians, and negative but somewhat inconsistent effects among Hispanics and Blacks. For White respondents, those with a more advanced education are significantly less likely to report negative views about the work ethic or intelligence of all racial groups. A similar pattern holds for Black respondents, where education is negatively associated with most stereotypical attitudes, although some coefficients do not reach traditional thresholds for statistical significance, perhaps due to the limited variation in several of these outcomes (e.g., very few Black respondents at any level of education say that Blacks are unintelligent). For Hispanics, education has significant negative effects on stereotypes about intelligence, but evidence of a relationship between education and views about the work ethic of racial minorities is less consistent. For Asians, education is not significantly associated with stereotypical attitudes about subordinate out-groups in any model, and many Asian respondents at all levels of education report negative attitudes about Blacks and Hispanics. These results are in part consistent with the revised ideological refinement perspective, which contends that the advancement goals of intermediate groups may conflict with elements of the dominant racial

ideology promoted through the education system. However, there is some evidence, albeit quite limited, of effect heterogeneity by nativity status among Asian and Hispanic respondents (see Appendix B). For American-born members of these groups, education has a more negative effect on stereotypical attitudes about the work ethic of Blacks, suggesting that the dominant racial ideology may be less at odds with the interests of more assimilated members of intermediate groups.

The upper panels of Table 6 present the estimated effects of education on discrimination attitudes from the MCSUI. These results indicate that education is positively associated with perception of discrimination against racial minorities among all respondent groups. The strength of this association, however, varies by race and target group. For example, among Whites in the MCSUI, education has a strong positive effect on perceived discrimination against Blacks and Hispanics, but the effect of education on perceived discrimination against Asians is much less pronounced and not statistically significant. A similar pattern holds for Hispanic respondents. Educated Asians, by contrast, are much more likely than their counterparts with lower levels of education to report discrimination against their in-group. And although Asian respondents exhibit few differences by level of education with respect to negative stereotypes, Asians with an advanced education are significantly more likely to say that Hispanics and Blacks face discrimination. For Black respondents in the MCSUI, education has significant positive effects on perceived discrimination against all racial minorities. The association between education and perceived discrimination against Whites, by contrast, is negative among all respondent groups, indicating that those with higher levels of education, regardless of race, reject the notion that the dominant group suffers harmful discrimination.

The lower panels of Table 6 contain results from models of discrimination attitudes based on the GSS. These estimates have very large standard errors because only a small number of respondents were asked about their views on racial discrimination. The point estimates, although imprecise, are generally in the same direction as those from the MCSUI, suggesting that perception of discrimination against racial minorities increases with education.

Table 7 presents log odds ratios from models of racial policy attitudes. The upper panels contain the estimated effects of education on support for racial preferences from the MCSUI. Despite the greater propensity for those with higher levels of education to say that discrimination makes it difficult for minorities to get good jobs, education is not associated with stronger support for racial preferences in hiring and promotion among any group in the study. In fact, White and Black respondents with a more advanced education appear less likely to support racial preferences than their poorly educated peers, although these differences are only marginally significant among Blacks and follow a non-monotonic pattern among Whites. Specifically, in the GSS, White respondents with middling levels of education (high school or some college) have the least favorable attitudes toward racial preferences targeting Blacks. Thus, there is no evidence that an advanced education is associated with greater support for racial preferences. This pattern of null or negative education effects among all respondent groups is inconsistent with both the simple and revised group interest perspectives.

The association between education and support for race-targeted job training, however, is markedly different. These effects are summarized in the middle panels of Table 7. In general, they indicate that those with higher levels of education are significantly more supportive of special job training than their counterparts with lower levels of education, especially when these programs target Blacks or Hispanics. Asian respondents may be the exception to this pattern: although education coefficients are positive, they are small and do

not approach conventional significance levels. Nevertheless, these estimates suggest that support for race-targeted job training programs, unlike support for racial preference policies, increases with education.

The results presented here indicate that the association between education and racial policy support depends on whether the policy adopts an opportunity-enhancing versus redistributive approach to remediating racial inequality. Education has generally positive effects on support for race-targeted job training, but null or negative effects on support for racial preferences in hiring and promotion. This pattern holds for Whites, Hispanics, Blacks, and to some degree, Asians, casting considerable doubt on both the simple and revised versions of the group interest (or empowerment) perspective. The different effects of education on redistributive versus opportunity-enhancing policy attitudes found among all racial groups suggests that education promotes a heightened commitment to the dominant legitimizing ideologies of individualism and meritocracy, regardless of group position. These findings, together with results from models of negative stereotyping and discrimination attitudes, are generally consistent with the revised ideological refinement (or alignment) perspective on inter-group attitudes.

DISCUSSION

The impact of education on inter-group attitudes is central to understanding the reproduction of racial inequality. Yet past studies of education and racial attitudes have largely failed to consider minority populations, focusing almost exclusively on Whites' attitudes toward Blacks. As a result, it remains unclear whether established theories can account for the effects of education on racial attitudes among nonwhite minorities, especially among those that may occupy intermediate positions in the racial hierarchy. This study addresses the lack of research on education and inter-group attitudes within a multiracial framework, using data from large samples of Whites, Asians, Hispanics, and Blacks to estimate education effects on negative stereotypes, perceptions of discrimination, and support for affirmative action policies, separately by racial group.

The results of this analysis indicate that education is associated with rejection of racial stereotypes among Whites, Hispanics, and Blacks, but has virtually no impact on negative stereotyping among Asians. And although, for all respondent groups, education is related to increased awareness of discrimination against minorities, it does not lead to higher levels of support for preferential hiring policies designed specifically to overcome racial discrimination in the labor market. In fact, among Whites, and to a lesser extent Blacks, there is some evidence that those with higher levels of education appear to have less favorable attitudes toward racial preferences than their poorly educated counterparts. For White respondents, opposition to racial preferences is most severe among those with middling levels of education. This finding is consistent with previous research indicating that highly educated Whites, as a result of their greater insulation from racial competition in the labor market, are not particularly threatened by preference policies in the employment sector (Glaser 2001).

Taken together, these results do not support simple versions of either the empowerment or ideological refinement perspectives, both of which are based on a naïve, dichotomous conceptualization of the racial hierarchy and group interests. Nor are these results consistent with the revised group interest (or empowerment) perspective that allows for a more finely segmented racial hierarchy, but constrains the interests of intermediate groups to be more similar to dominants on the one hand or subordinates on the other. Rather, the results of this study suggest a complex interaction between education and group position, where a more

advanced education appears to unevenly promote different elements of the dominant racial ideology among intermediate and subordinate groups.

For all racial groups, education seems to foster meritocratic and individualistic values, at least in considerations of racial policy. Those with higher levels of education tend to be more inclined to support special job training, an opportunity-enhancing policy, as opposed to racial preferences, a more radical redistributive approach to redressing racial inequality. Although much less pronounced among Asians, this general pattern is observed for all respondent groups, suggesting that the education system not only provides dominant group members with the intellectual means to deflect the redistributive demands of subordinate groups but may also socialize racial minorities in such a way that their own support for more radical social policies is somewhat diluted.

While education appears to have fairly uniform effects on racial policy attitudes, its influence on negative stereotypes is much more variable. For Asian respondents, education has no effect on negative stereotyping, and many Asians at all levels of education hold negative views about Blacks and Hispanics. These findings contrast sharply with the strong negative effects of education on the same attitudes among other groups considered in this study. For those that occupy an intermediate position in the racial hierarchy, then, education may not suppress the expression of traditional racist stereotypes, even though renouncing such attitudes is an important dimension of Whites' refined racial ideology. These results are in part consistent with the revised ideological refinement perspective, which posits a unique racial ideology among intermediate groups owing to their precarious social position between opposite poles of the racial hierarchy (Bonilla-Silva 2003; O'Brien 2008). Negative stereotypes may provide one means by which intermediate groups distance themselves from other nonwhite minorities in an attempt to escape the disadvantages associated with subordinate group status. If (partially) antiquated legitimizing ideologies for racial inequality become positively functional for certain groups, education may have little impact on their use. That similar education effects on negative stereotypes are not found among Hispanics, another group potentially occupying an intermediate social position, is likely due to their extremely disadvantaged status in the data used for this study. In several instances, Hispanics report inter-group attitudes quite similar to those of Blacks, leaving open the possibility of alignment with the bottom of the racial hierarchy.

Although the observed relationships between education and inter-group attitudes are consistent with the revised ideological refinement approach, there is another plausible explanation for some of these effects. Several studies document a phenomenon related to racial preference policies termed "the stigma of incompetence" (Heilman, Block, and Lucas 1992; Heilman, Block, and Stathatos 1997), where minority employees are perceived by their coworkers to be less competent because of their presumed status as "affirmative action hires." Minorities with higher levels of education may have more direct experience with affirmative action programs and therefore be more likely to have suffered stigmatization. Thus, according to the stigmatization perspective, educated minorities are less supportive of racial preferences not because of certain ideological dispositions, but because they are better attuned to the negative effects of these policies (Tuch et al. 1997).

This alternative explanation is not, however, independent of the ideological refinement perspective. Stigmatization does not naturally follow from racial preference policies themselves. Rather, attributions of incompetence are the result of long-standing racial stereotypes and the sacred status of individualism and meritocracy in the work environment. The stigma attached to affirmative action results from a belief that meritocracy will lead to fair hiring practices and the highest achieving workforce, and that those hired via racial preferences are weaker candidates who could not otherwise compete on qualifications or

performance. These beliefs are intimately related to meritocratic values and inveterate racial stereotypes. For example, deep-seated feelings that Blacks have a poor work ethic or inferior intelligence increase the chances of coworkers assuming that a new minority hire is unqualified and cannot match the job performance of a White employee. Absent negative racial stereotypes and strong commitments to meritocracy, it is unlikely that minorities would frequently suffer stigmatization in the workplace. The prejudicial assumptions that permit attributions of incompetence also obscure several of affirmative action's primary objectives: first, to overcome contemporary discrimination in the labor market, and second, to compensate for systemic obstacles minorities face when striving to obtain the necessary qualifications for employment.

Although the results of this analysis are consistent with the revised ideological refinement approach and the stigmatization perspective, both of these accounts are somewhat speculative. Without more detailed data on the reasons why racial minorities oppose or support particular policies, the results presented here should be interpreted with caution. To more precisely adjudicate between different theoretical explanations, future multiracial studies should use qualitative interviews or open-ended survey questions, which may elicit the logic and motivation underlying minorities' attitudes toward affirmative action policies, discrimination, and the different qualities of racial out-groups (e.g., Collins 1993; Farley and Schuman 1997; Feagin and Sikes 1994; Feagin, Vera, and Imani 1996).

In addition to scrutinizing the explanations outlined in this study, future research should also seek to overcome several of its limitations. First, theory suggests that racial attitudes and the effects of education on them may vary across nativity and ethnicity within the broader racial categories used in this analysis (Bonilla-Silva 2004). Unfortunately, data limitations in the MCSUI and GSS do not permit an assessment of ethnic and national-origin differences with any degree of precision. Second, this study analyzes attitudes about only two affirmative action programs, but a variety of such policies exist in different economic and educational institutions. Future research should attempt to provide a more definitive analysis of subgroup variation among racial minorities and examine a wider set of inter-group attitudes.

Even with these limitations, the results of this analysis suggest that an advanced education is not particularly enlightening or empowering for any group with respect to racial attitudes. Despite exhibiting an acute awareness of the racial preferences that exact great harm on minorities in the U.S., namely, the preferences for white skin that permeate labor markets, real estate markets, financial institutions, and residential choices (Charles 2003; Pager, Western, and Bonikowski 2009; Yinger 1995), neither educated Whites nor educated minorities show a heightened commitment to policies designed specifically to overcome these pernicious forms of racial discrimination. On the contrary, among those with an advanced education, support for more radical redistributive policies is supplanted by a commitment to relatively benign job training programs that are consistent with the refined racial ideology of the dominant group. This suggests that a primary ideological function of the formal education system is to marginalize ideas and values that are particularly challenging to existing power structures, perhaps even among those that occupy disadvantaged social positions.

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Appendix A. MCSUI and GSS Survey Items

NEGATIVE RACIAL STEREOTYPES

MCSUI

“Next, for each group I want to know whether you think they tend to prefer to be self-supporting or tend to prefer to be on welfare. Where would you rate [group] on this scale, where 1 means tends to prefer to be self-supporting and 7 means tends to prefer to be on welfare? A score of 4 means you think that the group is not towards one end or the other and, of course, you may choose any number in between that comes closest to where you think people in the group stand. What about Whites? What about Blacks? What about Asians? What about Hispanics or Latinos?”

“Next, for each group, I want to know whether you think they tend to be intelligent or tend to be unintelligent. Where would you rate [group] on this scale, where 1 means tends to be intelligent and 7 means tends to be unintelligent? A score of 4 means you think that the group is not towards one end or the other and, of course, you may choose any number in between that comes closest to where you think people in the group stand. What about Whites? What about Blacks? What about Asians? What about Hispanics or Latinos?”

For the Atlanta, Los Angeles, and Boston surveys, subjects were randomly assigned to receive three different versions of the stereotype question text: one third of respondents were read the text as it appears above, one third were read “[group] males,” and one third were read “[group] females.”

GSS

“Now I have some questions about different groups in our society. I'm going to show you a seven-point scale on which the characteristics of people in a group can be rated. In the first statement...The second set of characteristics asks if people in the group tend to be hard-working or if they tend to be lazy [respondent shown 7-point scale with 1 labeled ‘hard-working’ and 7 labeled ‘lazy’]. Where would you rate Whites in general on this scale? Blacks? Hispanics? Asians?”

“Next, do people in these groups tend to be unintelligent or tend to be intelligent? [respondent shown 7-point scale with 1 labeled ‘unintelligent’ and 7 labeled ‘intelligent’] Where would you rate Whites in general on this scale? Blacks? Hispanics? Asians?”

PERCEPTION OF DISCRIMINATION

MCSUI

“Now I am going to ask you some questions on a different topic. We are interested in whatever thoughts and opinions you have. There are no right or wrong answers. The first topic is discrimination. In general, how much discrimination is there that hurts the chances of [group] to get good paying jobs? Do you think there is a lot, some, only a little, or none at all? How about for Hispanics or Latinos? How about for Blacks? How about for Asians? How about for Whites?”

GSS

“How much discrimination is there that hurts the chances of [group] to get good paying jobs? Would you say there is a lot, some, only a little, or none at all? How about for Hispanic Americans? How about for Blacks? How about for Asian Americans?”

RACIAL POLICY ATTITUDES**MCSUI**

“Now I have some questions about what you think about the fairness of certain policies. Some people feel that because of past disadvantages there are some groups in society that should receive special job training and educational assistance. Others say that it is unfair to give these groups special job training and educational assistance. What about you? Do you strongly favor, favor, neither favor nor oppose, oppose, or strongly oppose special job training and educational assistance for [group]? What about blacks? What about Hispanics or Latinos? What about Asians?”

“Some people feel that because of past disadvantages, there are some groups in society that should be given preference in hiring and promotion. Others say that it is unfair to give these groups special preferences. What about you? Do you strongly favor, favor, neither favor or oppose, oppose, or strongly oppose special preferences in hiring and promotion to [group]? What about blacks? What about Hispanics or Latinos? What about Asians?”

GSS

“Some people say that because of past discrimination, Blacks should be given preference in hiring and promotion. Others say that such preference in hiring and promotion of Blacks is wrong because it discriminates against whites. What about your opinion—are you for or against preferential hiring and promotion of Blacks? [if favors] Do you favor preference in hiring and promotion strongly or not strongly? [if opposes] Do you oppose preference in hiring and promotion strongly or not strongly?”

Appendix B. Effects of Education on Racial Attitudes by Nativity

Table B.1
Net effects of education on inter-group attitudes by nativity, MCSUI 1992-1994

Outcome	Asians				Hispanics			
	Foreign born	U.S. born	LRT		Foreign born	U.S. born	LRT	
	β	SE	β	SE	β	SE	β	SE
Work ethic								
Whites prefer welfare	.024(.049)		.229(.217)		-.042(.021) [†]		-.064(.077)	
Asians prefer welfare	-.096(.047) [*]		-.024(.215)		-.015(.023)		-.085(.057)	
Hispanics prefer welfare	.013 (.031)		-.142(.104)		.015(.013)		-.044(.057)	
Blacks prefer welfare	.030(.030)		-.233(.122) [†]		.028(.018)		-.131(.066) [*]	
Intelligence								
Whites are unintelligent	-.061(.040)		-.238(.113) [*]		-.020(.023)		.074(.067)	
Asians are unintelligent	-.002(.043)		-.058(.122)		-.067(.021) ^{**}		.031 (.067)	
Hispanics are unintelligent	-.005(.026)		-.032(.082)		-.042(.016) ^{**}		-.059(.054)	
Blacks are unintelligent	.012(.028)		.056(.087)		-.035(.016) [*]		-.020(.056)	
Discrimination								
Whites face discrimination	-.063 (.040)		.023(.135)		-.028(.026)		-.022(.065)	
Asians face discrimination	.095(.024) ^{***}		.207(.078) ^{**}		.019(.018)		.015(.053)	
Hispanics face discrimination	.069(.022) ^{**}		.037(.092)		.032(.022)		.077(.059)	
Blacks face discrimination	.061 (.023) ^{**}		.016(.095)		.062(.020) ^{**}		.056(.069)	
Racial preferences								
Favor preferences for Asians	-.016(.022)		-.076(.084)		-.004(.015)		-.014(.048)	
Favor preferences for Hispanics	-.022(.022)		-.025(.081)		-.008(.015)		-.068(.050)	
Favor preferences for Blacks	-.027(.022)		-.023(.081)		.005(.014)		-.023(.048)	
Job training								
Favor job training for Asians	.016(.021)		.003(.074)		.060(.016) ^{***}		.017(.050)	
Favor job training for Hispanics	.022(.021)		.087(.084)		.076(.019) ^{***}		-.069(.059)	
Favor job training for Blacks	.009(.020)		.124(.092)		.085(.017) ^{***}		-.018(.063)	

Note: # indicates $p < .05$ from a likelihood ratio test (LRT) of the null that education coefficients are equal across nativity groups.

[†] $p < .10$

^{*} $p < .05$

^{**} $p < .01$

Biography

Geoffrey T. Wodtke is a doctoral student in the Department of Sociology and a Population Studies Center Trainee in social demography at the University of Michigan. His research focuses on the processes through which racial and class inequalities are generated and maintained; the ways that institutions, such as the formal educational system, influence beliefs about racial and economic inequality and how these attitudes challenge or reinforce existing social hierarchies; and methods for causal inference in observational studies.

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Table 1

Sample characteristics

Variable	MCSUI 1992–1994				GSS 1990–2010			
	Whites	Asians	Hispanics	Blacks	Whites	Asians	Hispanics	Blacks
Gender, % (n)								
Female	54.9 (1530)	51.9 (583)	60.1 (1071)	66.1 (2054)	54.9 (12454)	55.2 (297)	55.7 (1316)	62.9 (2562)
Male	45.1 (1259)	48.1 (541)	39.9 (712)	33.9 (1055)	45.1 (10229)	44.8 (241)	44.3 (1047)	37.1 (1514)
Political ideology, % (n)								
Liberal	30.1 (792)	28.7 (280)	34.1 (467)	41.1 (1109)	25.4 (5049)	33.8 (151)	31.1 (613)	32.3 (1105)
Moderate	33.7 (888)	31.3 (305)	25.3 (347)	33.0 (889)	37.4 (7427)	37.1 (166)	39.8 (783)	41.0 (1400)
Conservative	36.2 (954)	40.0 (390)	40.6 (556)	25.9 (698)	37.2 (7396)	29.1 (130)	29.1 (573)	26.7 (914)
Parents' education, % (n)								
Less than high school	20.7 (471)	33.8 (333)	69.8 (790)	34.6 (661)	29.2 (5482)	34.8 (158)	60.2 (1097)	43.4 (1350)
High school graduate	36.6 (833)	31.9 (314)	17.6 (199)	36.5 (696)	42.5 (7982)	29.7 (135)	23.1 (421)	33.1 (1028)
At least some college	42.7 (971)	34.3 (337)	12.6 (143)	28.9 (552)	28.4 (5327)	35.5 (161)	16.7 (304)	23.5 (730)
Nativity, % (n)								
Foreign Born	9.1 (188)	87.1 (969)	82.0 (1437)	6.8 (161)	4.4 (947)	70.5 (358)	44.3 (954)	6.8 (263)
U.S. Born	90.9 (1872)	12.9 (143)	18.0 (316)	93.2 (2207)	95.6 (20611)	29.5 (150)	55.7 (1198)	93.2 (3586)
Education, mean (sd)	13.5 (2.6)	13.1 (3.9)	9.7 (3.9)	12.4 (2.6)	13.5 (2.9)	14.7 (3.2)	11.8 (3.6)	12.5 (2.8)
Age, mean (sd)	46.9 (17.2)	45.3 (16.2)	37.0 (12.9)	44.6 (16.4)	47.9 (17.5)	40.5 (14.9)	38.3 (13.8)	43.5 (16.0)
Real income, mean (sd)	43.0 (33.4)	37.9 (32.9)	21.0 (19.0)	24.3 (23.3)	38.0 (26.1)	44.5 (29.9)	29.5 (23.0)	25.1 (21.6)

Table 2

Negative racial stereotypes

Variable	Whites	Asians	Hispanics	Blacks
MCSUI 1992-1994				
Work ethic, % (total n)				
Whites prefer welfare	5.8(2669)	7.0(949)	17.0(1691)	13.8(2970)
Asians prefer welfare	9.1(2566)	5.0(982)	18.7(1612)	13.9(2815)
Hispanics prefer welfare	37.1(2585)	75.4(950)	53.0(1713)	37.9(2844)
Blacks prefer welfare	44.5(2652)	76.2(964)	66.8(1681)	33.8(2990)
Intelligence, % (total n)				
Whites are unintelligent	5.2(2636)	8.7(944)	17.4(1698)	17.5(2985)
Asians are unintelligent	9.2(2547)	7.3 (972)	17.9(1639)	17.0(2835)
Hispanics are unintelligent	26.2(2562)	48.8(935)	22.7(1704)	26.1(2829)
Blacks are unintelligent	23.3(2621)	45.5(935)	29.2(1670)	13.3(3000)
GSS 1990-2010				
Work ethic, % (total n)				
Whites are lazy	9.6(10488)	8.8(249)	14.8(1111)	18.6(1921)
Asians are lazy	14.0(2986)	9.6(52)	13.2(213)	12.4(461)
Hispanics are lazy	33.1 (3024)	41.2(51)	15.0(227)	26.2(473)
Blacks are lazy	36.2(10401)	44.3 (246)	43.8(1111)	21.3(1929)
Intelligence, % (total n)				
Whites are unintelligent	7.7(9305)	10.0(230)	11.8(1030)	13.6(1726)
Asians are unintelligent	12.3(1914)	12.5(32)	15.0(147)	15.0(293)
Hispanics are unintelligent	28.7(1947)	30.0(30)	14.7(157)	24.3(300)
Blacks are unintelligent	18.8(9250)	23.0(226)	20.3(1023)	12.2(1734)

Table 3

Attitudes about racial discrimination

Variable	Whites	Asians	Hispanics	Blacks
MCSUI 1992–1994				
Discrimination, % (total n)				
Whites face discrimination	33.1(2008)	11.2(1045)	13.2(1696)	14.2(2324)
Asians face discrimination	55.7(2647)	49.2(1073)	48.8(1620)	55.1(2952)
Hispanics face discrimination	72.7(2686)	51.4(1044)	85.1 (1767)	75.5(2993)
Blacks face discrimination	72.8(2714)	57.1 (1049)	79.5(1712)	93.3(3062)
GSS 1990–2010				
Discrimination, % (total n)				
Asians face discrimination	58.6(1000)	--	65.5(55)	66.7(129)
Hispanics face discrimination	70.2(1033)	--	79.7(59)	79.9(139)
Blacks face discrimination	71.5(1069)	--	91.2(57)	84.6(149)

Note: Measures referencing Whites not included in the MCSUI-Detroit survey or the GSS. Results for Asians in the GSS not reported because there are less than 10 respondents to these items.

Table 4

Racial policy attitudes

Variable	Whites	Asians	Hispanics	Blacks
MCSUI 1992–1994				
Racial preferences, % (total n)				
Favor preferences for Asians	16.7(2034)	34.0(1098)	43.6(1736)	40.6(2343)
Favor preferences for Hispanics	18.5(2037)	27.7(1097)	54.2(1744)	50.6(2344)
Favor preferences for Blacks	19.9(2762)	28.1 (1108)	46.5(1768)	66.9(3078)
Job training, % (total n)				
Favor job training for Asians	49.8(2032)	61.4(1097)	68.0(1735)	61.5(2348)
Favor job training for Hispanics	56.1(2035)	58.5(1095)	80.3(1746)	74.7(2349)
Favor job training for Blacks	60.1 (2762)	58.5(1107)	73.6(1773)	89.5(3092)
GSS 1990–2010				
Racial preferences, % (total n)				
Support preferences for Blacks	11.3(9636)	22.1 (231)	22.3(1026)	46.2(1774)

Note: Variables referencing Asians and Hispanics not included in the MCSUI-Detroit survey.

Table 5

Net effects of education on negative racial stereotypes

Outcome	Whites				Asians				Hispanics				Blacks			
	β	SE	LRT		β	SE	LRT		β	SE	LRT		β	SE	LRT	
MCSUI 1992–1994																
Work ethic																
Whites prefer welfare	-.067(.037)	†	-		.028(.048)		-		-.043 (.021)	*	-		-.052(.029)	†	-	
Asians prefer welfare	-.137(.030)	***	h		-.095(.047)	*	-		-.019(.022)		w		-.080(.026)	***	-	
Hispanics prefer welfare	-.127(.022)	***	a,h,b		.006(.030)		w		.012(.013)		w,b		-.051 (.019)	***	w,h	
Blacks prefer welfare	-.107(.021)	***	a,h		.020(.029)		w,b		.018(.017)		w,b		-.092(.022)	***	a,h	
Intelligence																
Whites are unintelligent	-.121(.040)	**	h		-.066(.040)	†	-		-.015 (.022)		w		-.048(.023)	*	-	
Asians are unintelligent	-.111(.030)	***	a		-.004(.042)		w		-.061 (.020)	**	-		-.093 (.023)	***	-	
Hispanics are unintelligent	-.063 (.020)	**	-		-.006(.025)		-		-.043 (.016)	**	-		-.026(.022)		-	
Blacks are unintelligent	-.080(.021)	***	a		.013 (.028)		w		-.034(.016)	*	-		-.017(.024)		-	
GSS 1990–2010																
Work ethic																
Whites are lazy	-.054(.014)	***	-		-.156(.064)	*	h		-.005 (.027)		a		-.044(.026)	†	-	
Asians are lazy	-.127(.021)	***	-		-	-	-		-.077(.070)		-		-.101(.065)		-	
Hispanics are lazy	-.036(.016)	*	-		-	-	-		.038(.078)		-		.007(.043)		-	
Blacks are lazy	-.084(.009)	***	a		.041 (.048)		w,h,b		-.070(.020)	**	a		-.070(.024)	**	a	
Intelligence																
Whites are unintelligent	-.023 (.015)		-		.084(.086)		-		-.052(.032)		-		-.012(.028)		-	
Asians are unintelligent	-.124(.025)	***	-		-	-	-		-.216(.099)	*	-		.001 (.076)		-	
Hispanics are unintelligent	-.070(.020)	***	-		-	-	-		-.111(.102)		-		.003 (.055)		-	
Blacks are unintelligent	-.064(.011)	***	-		.011(.058)		-		-.065 (.024)	**	-		-.001 (.031)		-	

Note: w, a, h, and b indicate $p < .05$ for likelihood ratio test (LRT) of null hypothesis that the focal education coefficient is equal to that for Whites, Asians, Hispanics, and Blacks, respectively. Some estimates for Asians in the GSS are not available because of prohibitively small sample sizes.

[†] $p < .10$

* $p < .05$

** $p < .01$

*** $p < .001$ (two-sided tests of no effect).

Table 6

Net effects of education on attitudes about discrimination

Outcome	Whites			Asians			Hispanics			Blacks		
	B	SE	LRT	β	SE	LRT	β	SE	LRT	β	SE	LRT
MCSUI 1992–1994												
Discrimination												
Whites face discrimination	-.070(.021)	**	-	-.059(.040)	-	-	-.027(.025)	-	-	-.047(.028)	[†]	-
Asians face discrimination	.019(.019)		a	.100(.024)	***	w,h	.018(.018)		a	.059(.019)	**	-
Hispanics face discrimination	.103(.021)	***	h	.068(.022)	**	-	.035(.022)	[†]	w,b	.118(.021)	***	h
Blacks face discrimination	.113(.020)	***	-	.060(.023)	**	-	.062(.020)	**	-	.066(.033)	*	-
GSS 1990–2010												
Discrimination												
Asians face discrimination	.000(.024)		-	-	-	-	-	-	-	-.021 (.084)		-
Hispanics face discrimination	.002(.027)		-	-	-	-	-	-	-	.006(.084)		-
Blacks face discrimination	.040(.027)		-	-	-	-	-	-	-	.054(.088)		-

Note: w, a, h, and b indicate $p < .05$ for likelihood ratio test (LRT) of null hypothesis that the focal education coefficient is equal to that for Whites, Asians, Hispanics, and Blacks, respectively. Estimates for Asians and Hispanics in the GSS are not available because of prohibitively small sample sizes.

[†] $p < .10$

* $p < .05$

** $p < .01$

*** $p < .001$ (two-sided tests of no effect).

Table 7

Net effects of education on racial policy attitudes

Outcome	Whites			Asians			Hispanics			Blacks		
	β	SE	LRT	β	SE	LRT	β	SE	LRT	β	SE	LRT
MCSUI 1992–1994												
Racial preferences												
Favor preferences for Asians	-.040(.025)		-	-.018(.021)		-	-.005(.015)		-	-.013(.021)		-
Favor preferences for Hispanics	-.037(.025)		-	-.022(.022)		-	-.011(.015)		-	-.005(.020)		-
Favor preferences for Blacks	-.024(.024)		-	-.027(.022)		-	.003(.014)		-	-.041 (.023) [†]		-
Job training												
Favor job training for Asians	.018(.021)		-	.015(.020)		-	.057(.016)		***	.035(.021)		-
Favor job training for Hispanics	.049(.021) [*]		-	.025(.020)		-	.068(.018)		***	.063(.024) ^{**}		-
Favor job training for Blacks	.046(.021) [*]		-	.013(.020)		h	.079(.016)		***	.058(.034) [†]		-
GSS 1990–2010												
Racial preferences												
Support preferences for Blacks												
Linear term	-.422(.052)		***	.025(.056)		-	-.016(.024)		-	-.012(.021)		-
Squared term	.016(.002)		***	-		-	-		-	-		-

Note: w, a, h, and b indicate $p < .05$ for likelihood ratio test (LRT) of null hypothesis that the focal education coefficient is equal to that for Whites, Asians, Hispanics, and Blacks, respectively.

[†] $p < .10$

^{*} $p < .05$

^{**} $p < .01$

^{***} $p < .001$ (two-sided tests of no effect).