RACIAL AMBIGUITY AMONG THE BRAZILIAN POPULATION

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ABSTRACT

I investigate the extent to which interviewers and respondents consistently classify race in a survey of Brazil. Overall, classification as white, brown or black is consistent 79 percent of the time. However, persons at the light end of the color continuum tend to be consistently classified while ambiguity is greater for those at the darker end. Using statistical estimation, the findings also reveal that consistency varies from 20 to 100 percent depending on one’s education, age, sex and local racial composition. Furthermore, both “whitening” and “darkening” occur, depending on whether the reference is interviewer or respondent. For example, interviewers “whitened” the classification of higher educated persons who self-identified as brown, especially when such persons reside in mostly nonwhite places. Finally, I discuss the role of the Brazilian state in constructing race and the implications of these findings for survey research and comparative analysis.

Keywords: racial classification, ambiguity, consistency, whitening, darkening, Brazil.
Although racial differences in life chances depend largely on racial classification and discrimination by others, sociological studies that examine these phenomena often rely on censuses or surveys in which race data is based on self-classification, using predetermined categories. In Brazil, this is problematic because of the ambiguity known to exist in its racial classifications. Since 1950, the Brazilian Institute of Geography and Statistics (IBGE) instructs interviewers to code race in the decennial Census of Brazil according to the respondent’s declaration. However, interviewers sometimes respond themselves either because they assume they know the correct response category, they feel uncomfortable in asking about race, or they rush interviews and provide cursory responses to questions they feel are not critical (Rosemberg et al 1993, Pinto 1996). Moreover, a single respondent in each household provides data, including their racial classification, for all other members of the household. The decision about how to classify other members may be based on knowledge of that person’s self-classification or race as perceived by the respondent. An earlier study showed that racial classification between interviewer and respondent is often inconsistent and racial inequality is high regardless of who makes the classification (Telles and Lim 1998). However, the way these inconsistencies are patterned across social contexts is unknown.

In this study, I examine the extent of inconsistency between interviewers (categorization) and respondents (identification) in racial classification using a national survey of Brazil.¹ Inconsistency refers to disagreement between interviewers and

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¹ I use categorization synonymously with classification by others, including by interviewers, and identification synonymously with self-classification. Classification is the more general term and includes categorization and identification.
respondents on the racial classification of the respondents. I also investigate whether particular social contexts, e.g. educational level, local racial composition and the respondent’s position along the racial continuum, shape the extent and direction of inconsistency. I am concerned that although social scientists have established that racial classification may be ambiguous or fluid in Brazil, their small and selective samples do not demonstrate whether ambiguity is merely random or whether it is patterned by particular social contexts. Does greater social status lead to more inconsistency, particularly, classification in lighter categories as the ideology of whitening suggests? Are non-whites in predominately white locales more likely to be inconsistently categorized? Are mixed-race persons more likely to reclassify than whites or blacks with changes in social status or local racial composition?

THREE DIMENSIONS OF RACIAL CLASSIFICATION

Racial classification may be understood at the macro, interactionist and the individual dimensions, as defined by symbolic interactionists (Goffman 1959, Ridgeway 1997, Jenkins 1998). In this study, these dimensions refer to the state through its Census systems, the census interviewer and the census respondent, respectively. This study of racial ambiguity focuses on discrepancies in classification between the census interviewer and the respondent, using categories that are previously defined by the IBGE.

The macro-institutional level includes the state as well as other institutions such as the media. The state is important because it establishes and institutionalizes categories that may become templates for social differentiation, thus structuring race relations and shaping popular understandings of race (Omi and Winant 1986, Jenkins 1998 Dominguez 1998). State decisions about which racial categories to use and whether and how to collect such
data are known to vary over time and across societies, and depend on ideologies, racial practices, and state responses to social and political demands (Skidmore 1974, Omi and Winant 1986, Graham 1990, Marx 1998). In Brazil, the state collects population data according to particular racial categories but it has never defined criteria for membership. By contrast, federal and state governments in the US legally defined racial categories and membership in them for the purpose of allocating social benefits, including housing in particular neighborhoods and who may enter through immigration or become a citizen (Skidmore 1974; Lopez 1997).

Popular beliefs about race, which are partly shaped by state decisions, may also inform data collection by the Census because they shape interviewer and respondent perceptions of race. Racial classification by interviewers occurs at the interactional level and reflects the more general instance of categorization by others or at least categorization by the sector of society that is represented by Census interviewers. Symbolic interactionists point out that social categories like race serve as guides for interpersonal behavior (Goffman 1959, Ridgeway 1997). Racial categorization is informed by popular beliefs which presuppose that humans are divided by distinguishable and ranked physical types. In first impressions, as in the Census interview, persons categorize others on the basis of physical appearance since they are generally unable to rely on characteristics (e.g., descent, culture) that require prior knowledge. Aside from phenotype this may include status markers like dress, language and perceived level of education in Brazil (Harris 1963, Hutchinson 1963). Finally, persons who are being categorized can also influence categorization by intentionally conveying particular information about themselves in order to manage the impression that others have of them (Goffman 1959).
At the individual level, Census respondents identify themselves in a racial category. Identification may involve a reflective and complex process occurring through socialization, rather than a mere refraction of categorization (Cohen 1994, Erikson 1968). Certainly, humans learn about the society in which they are born, how its members are categorized and that others treat them as members of particular categories. However, identification in particular categories may also reflect descent, culture and other characteristics transmitted during socialization. Additionally, self-identification may involve the rejection or acceptance of the symbols, traditions and lifestyles associated with particular categories (Cohen 1994; Sansone 1997). In Brazil, this includes the avoidance of nonwhite, especially black, categories because they are often associated with negative characteristics such as poverty, sloth and violence (Souza 1983; Chagas 1996). Unlike the other two levels, this level of analysis was virtually ignored in the classic studies of Brazilian racial classification.

SOCIAL CONTEXT AND CLASSIFICATION: THEORETICAL PREMISES

Since Frederik Barth’s Ethnic Groups and Boundaries (1969), social scientists have often argued that ethnic distinctions are sometimes fluid and depend on the social contexts and situations in which they are made. Racial distinctions may also follow the same general theory, especially in Latin America (Sansone 1997, Wade 1997) although some scholars often assume race to be essential or monolithic (Loveman 1999). The essentialism of race may reflect a US bias, although a series of studies (Hahn, Mulinare and Teutsch 1992; Eschbach and Gomez 1998; Waters 1999; Nagel 1996) recognize that racial classification may be malleable for American Indians, Asians and Hispanics, and to a lesser extent for African Americans, who bear the legacy of strict racial classification and segregation laws...
(Davis 1991, Waters 1999). Although racial categorization clearly affects one’s life chances in Brazil (Hasenbalg 1979, Silva 1985, Lovell 1989, Telles and Lim 1998), the categorized do not necessarily use such labels to describe themselves and they may not sense any attachment to a racial group nor recognize that such groups even exist.

Flexibility in racial classification among Brazilians may derive, in part, from the ideology of whitening. During the height of scientific racism in the late nineteenth and early twentieth century, the Brazilian elite was concerned that the country’s large black population would predestine the country to second-class status. Therefore, it sought to “eliminate” blacks and thus “whiten” the population by encouraging European immigration and intermarriage. Marriage to whites was believed to whiten the population because white genes were thought to be dominant (Skidmore 1974). According to some anthropologists, “whitening” persists in popular beliefs, and by internalizing it, nonwhites seek social and geographic mobility, classification in lighter categories and self-insertion into white networks (Harris 1963, Hutchinson 1963, Wade 1995; Twine 1998).

**Educational Status Effects**

Social scientists have paid particular attention to whether high education or other status variables lead to classification in lighter categories (Skidmore 1974; Hanchard 1994, Wade 1997). The Brazilian notion of whitening by education is revealed in two classics of Brazilian literature in which the central characters are conflicted between identification and categorization, although in opposite ways. In the first, a highly educated man considered

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2 The US Census is sensitive to this and has debated whether to use self-classification or interviewer-classification of race in the 2000 Census (United States Office of Management and Budget 1998). The Census relied on interviewer-classification prior to 1970 and since that year, it has relied on self-classification (US Bureau of the Census 1975).
himself white even though others had thought of him as a mulatto (Azevedo [1881]1973).

In the second, which became a popular television soap opera, the central character is a slave woman of light color who happens to become well-educated. She considers herself a mulata while others, unaware of her slave status or parentage, consider her white (Guimaraes [1876] 1973). Thus, whitening by education may occur by self-classification as lighter than one is categorized or, alternatively, by classification by others as lighter than one’s own identification.

Disagreement about the effects of status on racial classification emerged in studies during the 1950s and 1960s but this research only investigated classification by others. Some contended that status variables, especially wealth and education, led to categorization in lighter racial categories (Harris 1963; Hutchinson 1963). For example, Hutchinson (1963:46) found relatively wealthy and well-educated persons in one town “who clearly show traces of Negro blood are called and treated as white with no constraint or embarrassment.” On the other hand, Wagley (1963) argued that actual reclassification is unlikely although status gains may make nonwhites more acceptable to whites. Observations such as these revealed an essentialization of race in which some classifications are more objective than others. This may be especially problematic because the investigators were US scholars. In this vein, Wagley (1963:14) noted that his observations and those of his colleagues’s (Harris, Hutchinson and others in the 1963 volume he edited) were “naked eye judgements”, necessarily affected by the “social and cultural experiences” of each of them.³

³ Note that almost all of these studies relied on conventional ethnographies. An important exception (Harris 1970) was based on a systematic experimental methodology and showed
More recent studies examined self-classification and interpreted status effects on racial classification to occur by high status individuals identifying themselves in lighter categories than they would have in the absence of such status (Silva 1994; Wood 1991). Wood’s (1991) analysis of birth cohorts across censuses found that many persons must have classified as brown in the 1950 Census but reclassified as white in the 1980 Census. He attributes this to whitening of self-classification as a result of upward social mobility over the period 1950-1980. Similarly, Silva’s (1994) study of the city of São Paulo found that persons who identified in lighter categories than they were categorized by interviewers had income and levels of education that were greater than those that were consistently classified in the darker categories. However, 29 percent of his sample self-classified in categories for which there were no corresponding interviewer classification categories. Telles and Lim (1998) found that interviewers used the white category to describe 20 percent of the individuals who self-classified as brown and these persons had significantly higher incomes, on average, than those consistently classified as brown. Contrary to Silva (1994), Telles and Lim’s findings thus suggest that interviewers, rather than respondents, were more likely to whiten persons with higher income.4

The extent to which status affects racial classification may vary at particular points in the color continuum. Wade (1994) finds for Colombia, which he believes is similar to Brazil, that browns may reclassify while blacks do not have the option of classifying in ambiguity in Brazilian racial classification but was silent about the effect of variables like class.

4 Wood’s (1991) finding is not necessarily inconsistent with Telles and Lim (1998) since his finding does not account for whether whitening also occurred in interviewer classifications.
lighter categories. This follows Banton’s (1997) theory that status has relatively little effect on persons whose characteristics are closest to the category stereotypes of others. In addition, there may be no significant advantage to reclassifying as brown given that the socioeconomic status of browns and blacks is generally similar and clearly lower than whites (Silva 1985, Lovell 1989, Telles and Lim 1998). Nonetheless, one could posit that high status persons at the darkest end of the color continuum (those categorized or that identify as black) may be especially more likely to whiten with status gains because the black category is the most stigmatized (Skidmore 1974, Degler [1971]1986, Wade 1997).

**Local Racial Composition**

Miscegenation may have led to much ambiguity in racial classification because many persons do not fit neatly into one category or another. Moreover, the categories themselves are based on popular stereotypes rather than precise legal definitions. Two recent studies, one survey-based that asked about African and indigenous ancestors and another genetics-based, showed that many Brazilians that identify as white have non-European ancestry. Racial mixture in Brazil is largely due to demographic reasons in which European males in Brazil far outnumbered European females during the colonial period, leading them to seek Indian and African women as mates and sexual partners. Also, the exposure of whites and nonwhites to each other has been relatively high throughout Brazilian history. The white proportion of the national population has varied from 37 percent in 1872 to 64 percent in 1940 to 52 percent in 1991 and regional and urban spatial segregation is moderate compared to high segregation in the US and South Africa (Telles 1993). Also, anti-miscegenation and segregation laws have been largely absent from the Brazilian experience. This demographic and legal history may have led to a contemporary culture of relatively high tolerance for miscegenation and intermarriage. For example, 20
percent of whites in unions (civil, religious and consensual) were married to nonwhites in 1980 (Telles 1993).

However, racial composition and thus miscegenation varies widely across Brazil’s regions. Differences in the percent white of particular geographic areas reflect historical-regional differences in which the predominately nonwhite areas, exemplified by the Northeast region, were characterized by large plantations throughout the colonial period that relied heavily on Indian, and later African slaves. The mostly white areas, exemplified by the Southeast and South regions, were characterized by the displacement of the slave system with industrialization and the settlement of the vast majority of European immigrants to Brazil (Fernandes 1955, Andrews 1992). In the case of contemporary intermarriage, the percent of whites married to nonwhites is high and positively correlated with the percentage of whites in an urban area, varying from roughly 1 to 50 percent (Telles 1993).

Studies of racial classification in Brazil have been almost exclusively based on small samples of towns in the predominately nonwhite North and Northeast regions, where nonwhites are the numerical majority. In particular, these regions may be particularly subject to ambiguity in racial classification because of relatively extensive miscegenation over several centuries. Because of greater propinquity of whites to nonwhites in the North and Northeast, white exogamy continues to be especially high in these regions (Telles 1993), making generalizations of these findings for all of Brazil questionable. Therefore, it seems reasonable to believe that residents of mostly nonwhite places, where there tends to be more miscegenation, are more likely to be found near the boundaries separating racial categories along the color continuum. To account for such differences, I examine variation in ambiguity depending on the white percentage of the local population.
BRAZILIAN RACIAL CATEGORIES

The IBGE included a race variable in its six censuses since 1940 except for 1970 when military governments deemed race to be statistically meaningless (Skidmore 1974; Rosemberg et al 1993). Since 1940, the IBGE has used three response categories to characterize the white to black color continuum: white (*branco*), brown/mixed race (*pardo*), and black (*preto*). Together, these categories have accounted for more than 99 percent of the Brazilian population. The 1872, 1890 and 1940 Censuses, the only previous censuses to ask about race, included *branco* and *preto* but used other intermediate categories.

The literal English translation of the Brazilian Census race question (*qual é a sua cor?*) is *what is your color?* **Color/cor** captures the Brazilian equivalent of the English language term “race” and is based on a combination of physical characteristics including skin color, hair type, nose shape and lip shape and the nonwhite categories have negative connotations (Noguiera 1995 [1955], Harris and Kottack 1963, Pierson 1967).\(^5\) In Brazil, the word color (*cor*) is often preferred to race (*raça*) because it captures the continuous aspects of Brazilian racial concepts in which groups shade into one another (Guimarães 1999). Race, on the other hand, is sometimes believed to be antithetical to Brazilian national concepts and based on a US model that creates bipolar distinctions based on ancestry and essentializes physical characteristics termed “racial”. However, like race, one’s color is commonly ranked according to a racial ideology in Brazil. In the Western world, which includes Brazil, racial ideologies are rooted in common scientific theories that establish that white persons are biologically superior to others although these concepts evolved in distinct ways across societies. The color continuum, which formed in the Brazilian case, led to blurred group distinctions but the heirarchical ordering of these colors

\(^5\) Thus, I use color and race interchangeably in the remaining text.
has persisted nonetheless. If we accept the consensus position that race is a social construction that is mutable over time and across social contexts and that it is sustained by a racial ideology, then it is applicable to the Brazilian case. Although cor may be the more salient native term, the term raça is increasingly common in Brazil. While only cor was used in previous Censuses, both terms are used in the 2000 Census, reflecting its growing acceptability. Even though I believe the terms are interchangeable for the most part, I prefer the term race for this type of analysis because it is the more universal sociological concept and it is broad enough to fit the Brazilian case along with several others.

In popular discourse, several mixed race terms are used (Harris 1964; Sansone 1997) and consequently the Census brown category serves as an umbrella category. A national survey in 1976 revealed the use of more than 100 racial terms in an open-ended question about color although six terms comprised fully 97 percent of all responses (Silva 1987). Most of these terms referred, roughly, to persons of partial African or Indigenous appearance. The Census brown category (pardo) was used by only six percent of the population while a non-Census term, moreno, which also translates as brown, was used more than any other term except white (Silva 1987). However, moreno is an especially ambiguous referent to race and may encompass all persons with black or dark brown hair (Pacheco 1987; Stephens 1989; Harris 1964). Despite the multiplicity of terms in popular discourse, Afro-Brazilian activists prefer that the term negro, which also translates to black as does the Census term preto, be used by all persons of any African appearance or ancestry (Nascimento 1982, Nobles 1995). They maintain that the state’s use of multiple categories and of the term “color” and a hierarchy where brown is superior to black, has inhibited the formation of a collective black identity around which African Brazilians can mobilize in response to shared discrimination and exclusion (Hanchard 1994). Apparently, due to the
effectiveness of black social movements in Brazil, the media and policymakers increasingly use the dichotomous black/white categories. (See for example Brasil 1986).

The lack of classificatory laws in Brazil may have facilitated movement between categories. Relatedly, the Brazilian state rarely used large-scale race-based public policies (an important exception was encouraging European immigration) or laws to subordinate its nonwhite population. Similarly, Brazilian legislation never promoted nonwhites through large-scale programs such as affirmative action programs although anti-discriminatory law has existed since 1934 (Silva 1999). The lack of such laws or policies thus reduced the need and salience for well-defined racial categories.

DATA

I analyze data from a national face-to-face survey collected by the Data Folha Instituto de Pesquisas, the survey unit of the Folha de São Paulo, one of Brazil’s major daily newspapers. The survey was carried out in April of 1995 and is officially called “300 Anos de Zumbi: Os Brasileiros e o Preconceito de Cor” (300 Years of Zumbi; Brazilians and Racial Prejudice). For the first time in a national survey, both interviewer and respondent classify respondents’ color or race.

Data is based on a stratified national random sample of the urban population that is age sixteen and over. Urban areas accounted for fully 76 percent of the Brazilian population in the 1991 Census (Associação Brasileira de Estudos Populacionais 1996). After selecting municipalities at random from within socioeconomic level, region and size strata, successive random samples are taken of neighborhoods, then streets and then individuals. The complete sample consists of 5014 persons sampled across 121

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6 The title refers to 300 years since the birth in 1695 of Zumbi, the leader of a runaway slave colony (Quilombo de Palmares) which lasted nearly 100 years.
municipalities and roughly matches data from the 1991 census on several important variables, including race, age and sex, plus or minus the statistical range of error (Folha de São Paulo 1995).

To avoid bias in favor of the respondent’s own classification, interviewers classified respondents according to the five census racial categories prior to asking questions from the survey. Also, respondents were not aware that the interviewer categorized them. Near the beginning of the questionnaire, interviewers asked, “considering the following categories, what is your color: white, black, brown, yellow or indigenous?” According to the survey director, in the large majority of cases, interviewers claimed there was little doubt about respondent’s race. Clearly, racial classification depended largely on the opinion of the interviewers even if the interviewer claimed classification was straightforward. However, we do not have alternative evidence on the level of racial ambiguity in Brazil that would permit any sensitivity analysis. Since regional conceptions of racial classification may vary, one advantage of this survey is that interviewers resided in the same region as interviewees. In a small number of cases where interviewers had doubts about racial classification, they made decisions with the central survey team and the final decision usually confirmed the interviewer’s initial impression. Classification of race by others might have been improved if the survey used a panel of interviewers established for each region or by interviewing a person outside of their social context, but the high costs prohibited such methodological precautions.

The data contain no information on the characteristics of the interviewers, although the survey director reported that interviewers were likely to have had at least some education at the college level and the majority was white. This profile is similar to that of Census interviewers. Although interviewers may vary in their assessments of race (Harris
1964), their similar status profiles may lead to classifications that are different from those of the general population. In a large sample as in this study, I assume that interviewer classification will roughly represent average racial classifications by highly educated and mostly white observers.

According to the 1991 Census, the population of Brazil is 52 percent white, 42 percent brown, 5 percent black, 0.4 percent yellow and 0.2 percent indigenous. The entire survey sample, according to self-classification, is 53 percent white, 36 percent brown, 10 percent black, 0.6 percent Asian and 1.1 percent Indian. Thus the sample distribution represents the universe within the statistical range of error. Research on racial classification in Brazil has focused on persons in the black to white continuum, which includes the vast majority of the Brazilian population. Because the inclusion of the small Asian and indigenous populations would complicate the analysis, I limited the sample to persons who self-classified and were classified by interviewers as white, brown or black.

METHODS

The dependent variable is inconsistency between racial classification by interviewers (categorization) and respondents (identification). To understand the distribution of consistent and inconsistent classification in the sample, I begin the analysis by examining the frequencies in the cells of a 3 x 3 table representing interviewer-classified color by self-classified color. To examine inconsistency among whites, browns and blacks by education, racial composition and other variables, I run dichotomous and multinomial logit regressions separately for each of the three color groups. For the multivariate analysis, the dependent variable is rated 1 where interviewers and respondents agree on racial classification and 0 where they disagree in the case of whites and blacks. Thus,
inconsistency refers to darkening for whites and whitening for blacks. For browns, there are three outcomes: classification as white, as black or as brown. The brown or consistent category is the reference category.

The two central independent variables are education and local racial composition. The analyses use a series of dummy variables for educational level: persons who have not completed primary school (low/omitted), those who have completed primary but have not completed secondary school (medium) and those who have completed secondary school or more (high). Although I considered income and Marxist class position (Portes 1985), separate analysis proved education to be a far better predictor of inconsistency than the other two variables. For local racial composition, I calculate the percent white of the urban area in which the respondent resides with information from the 1991 Census and link this information to the individual record. Although the sample includes respondents from 122 municipalities, I construct racial composition variables for 90 localities because single urban areas may contain several contiguous municipalities.

Finally, I also include age and sex variables as independent variables. Age is represented by a continuous linear variable and may be important given recent descriptive evidence that young Brazilians are increasingly affirming a black identity, in relation to their older counterparts (Sansone 1997, Schwartzman 1999). Sex is a dummy variable denoted by female. To my knowledge, gender differences in racial classification have not been shown to exist.

For the multivariate analysis, I run two sets of regressions because I expect both interviewer and self-classification to be sensitive to the effects of the independent variables. These examine whether self-identified white, brown and black persons are consistently classified by interviewers and whether interviewer-classified white, brown and black
persons are similarly self-classified. I also examine whether brown persons, as classified either by respondents or interviewers are alternatively classified as white, brown or black. The coefficients are in turn transformed into the predicted probabilities that the three groups, by educational level and percent white, will be consistently classified (Long 1997). Finally, the predicted probabilities are graphically presented.

**FINDINGS**

*Bivariate Findings*

The sum of the diagonal cells shows that 79.1 percent of the sample was consistently classified. Thus, only about one-fifth of Brazilians, according to this sample, are ambiguously classified when using Brazilian census categories.

Table 1 about here

The marginal columns in Table 1 show distributions by color according to method of classification and they reveal no difference in the percent of the sample classified as white. However, the distribution of nonwhites into black and brown categories varies. Interviewers classified 33.9 percent of the sample as brown and only 10.7 percent as black, while 31.4 percent self-classified as brown and 13.2 percent as black. Thus, these findings reveal no net shift from nonwhite to white categories with changes in method of classification although they show that interviewers used the brown category more and the black category less than respondents did.

While the official Census estimates of Brazil’s racial composition suggest precision, the results from this study reveal that national percentage figures by color may vary widely, depending on whether racial classification is by interviewer,
respondent or both. Table 2 presents means for the dependent and independent variables. Values for the dependent variables show that whites are especially likely to be consistently classified. Fully 88 percent of whites were consistently classified from the perspective of either interviewers or respondents. Consistency in classification of browns and blacks varied from 58.5 to 71.8 percent. Respondents agreed only 58.5 percent of the time with black classification given by the interviewers. For browns, inconsistently classified persons were more likely to be white rather than black. Among interviewer-classified browns, more than twice as many self-classified as white (19.9 percent) than as black (8.7 percent), while the proportions of self-classified browns that were categorized as black and white were more similar (18.3 and 15.3 percent). The independent variables reveal only small differences by self- or interviewer-classificated color.

**Multivariate Findings: Patterns of Consistency**

Tables 3 through 6 report logit regression results predicting inconsistent vs consistent (omitted) classification. Using simple logit regression, Tables 3 and 4 examine the determinants of inconsistent classification for whites and blacks which nearly always results in classification as brown (see Table 1). The sample in Table 3 refers to self-classified whites (column 1) and blacks (column 2) while Table 4 designates interviewer-classified whites (column 1) and blacks (column 2). Since inconsistent classification for browns may mean classification as either white or black, Tables 5 and 6 uses multinomial logit to examine the determinants of whether self-classified browns (Table 5) or interviewer-classified browns (Table 6) are alternatively classified as white (column 1), black (column 2) or brown (omitted).

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7 This does not include the roughly 1 percent of the population that is Asian or indigenous.
Figure 1 and 2 graphically summarize the findings of Tables 3 to 6, a useful procedure for interpreting the results, especially magnitudes, of otherwise complicated multivariate models with interactions (Long 1997). By exponentiating the regression coefficients, I calculate predicted probabilities of consistent or inconsistent classification (vertical axis) for each racial category by three educational levels (separate lines) and the percent white in urban areas (horizontal axis). I present both significant and insignificant differences for these variables but because each panel of the figure illustrates the interactions of four variables (color, education, percent white in urban area and predicted probability), I hold age and sex constant. When differences by sex are significant, I present separate plots for males and females. I calculate all of the predicted probabilities using a constant age of 35 years, the approximate sample mean. The three panels of Figure 1 illustrate the predicted probabilities of consistent classification based on results from all of the tables and the panels of Figure 2 plot the probabilities that browns are alternatively classified as either brown, white, or black based on the findings from Tables 5 and 6.

Tables 3 and 4 show that education whitens racial classification at the lighter end of the color spectrum because education is positively correlated with consistent classification (or negatively correlated with inconsistent classification) for whites and the results are significant. Additionally, the smaller coefficients for education in Table 4 compared to Table 3, suggest that interviewers vis-à-vis respondents are especially likely to whiten respondents with higher education compared to respondents whitening themselves.8 The

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8 Odds ratios computed from Table 3 showed that high educated persons who self-classified as white were roughly seven times as likely to be classified by interviewers as white compared to their low educated counterparts. Based on the coefficients in Table 4,
main effects coefficients for education among blacks in Tables 3 and 4 are not significant. However, significant and large interaction coefficients between females and education in Table 3 shows that education affects racial classification for women but not men at the darker end of the color continuum. In particular, self-classified black women with high education are least likely also to be called black by others. Thus, Wade’s (1994) contention that reclassification is likely only for those of intermediate racial status is supported only for men while education whitens intermediate and dark women.

Turning to the effects of racial composition, the coefficients for percent white are positive in both Tables 3 and 4. This reveals that ambiguity is greater in places with lower proportions of whites. This tendency is statistically significant at the .001 level for whites in both Tables 3 and 4 but it is not at all significant for blacks in either table. In Table 3, the interaction between percent white and female is significant and positive, meaning that racial ambiguity varies more among women with changes in local racial composition. Interestingly, the main effects female coefficient is not significant in either table.

The three panels of Figure 1 provide a graphical illustration of the simultaneous effects of these variables for whites and blacks on the extent of consistency. They also demonstrate inconsistency among browns based on the results from Tables 5 and 6 and are again illustrated in Figure 2. Figure 1 confirms the findings from Tables 3 and 4 and further shows the magnitude of effects. In places like São Paulo, where whites comprise roughly interviewer-classified whites with high education were less than twice as likely as the low educated to identify themselves as white.

9 Interestingly, medium-educated are more likely than low-educated and self-classified black women to be categorized as black by interviewers.
70 percent of the population, self-classified white males and females of low educational level are consistently classified about 85 percent of the time while medium and highly educated whites are consistently classified more than 95 percent of the time. By contrast, in places like Salvador, Bahia, where roughly 20 percent of the population is white, low educated whites are consistently classified only 65 percent of the time although medium and high educated whites are consistently classified at 83 and 92 percent, respectively.

Figures 1A shows that interviewers agree with the black label chosen by female respondents with high education in only about 20 percent of the cases. By contrast, interviewers label self-classified black females with low and medium education as black in 40 and 60 percent of the cases. Given the especially negative connotation to the category black and greater cordiality afforded to women, interviewers may be more likely to avoid offending and thus labeling dark women with high status as black. Gender differences also emerge at the lighter end of the continuum although they are not nearly as great as those at the darker end. Table 3 shows that self-classified white women are more likely than men to be consistently categorized as white by interviewers. Finally, the statistically significant Percent White * Female interaction demonstrates that percent white in the urban area has a greater effect on the likelihood that self-classified black women are whitened by interviewers compared to black men, although a comparison of Panels A and B reveal that such differences are small.

The education coefficients in Table 5 indicate that interviewers whitened self-classified browns with higher education while they darkened those with lower education. These results are consistent with Hutchinson’s (1963) observations that higher status nonwhites may be categorized by others as white. Specifically, those with high education,
followed by those with medium education, were most likely to be categorized as white by interviewers while those with the highest education, followed by those with medium education, were least likely to be called black. Furthermore, the extent to which education made a difference to classification was much greater in the direction of categorization as black compared to white.

Tables 5 and 6 about here

The education coefficients in Table 6 that predict classification of browns as white, run in opposite directions to those in Table 5. High education coefficients are not significant and medium education is positive for interviewer classification of self-classified browns as white (Table 5) but both medium and high education coefficients are negative for the self-classification of interviewer-classified browns as white (Table 6). Interviewers are thus more likely to categorize self-classified browns of higher education as white than those of lower education while interviewer-classified browns with less education are more likely to identify as white. Thus greater education for persons classified in both the white and brown categories leads to whitening by interviewers and either has no effect or darkening by respondents. Thus, whitening when comparing respondent and interviewer classification tends to be by interviewers and not vice-versa.

Regarding the effect of local percent white on browns, Tables 5 shows that self-classified browns are more likely to be classified as white by interviewers in places with greater proportions of whites. For classification as white in Table 6, the percent white in urban area coefficient is significant only when it interacts with female. A negative coefficient suggests that interviewer-classified brown females in predominately nonwhite urban areas are more likely than those in predominately white areas to identify themselves as white while local racial composition has no effect on males. Finally, Tables 5 and 6
demonstrate that the likelihood that browns are alternatively classified as black does not vary among locales with different racial compositions.

Figure 2 shows that consistency for browns tends to decline as the percent white increases, especially for self-classified browns. Also, self-classified browns are more likely to be categorized as white rather than as black, especially in places with greater proportions of whites. Self-classified browns with high education are categorized as white approximately 40 percent of the time in places like Sao Paulo where whites comprise 70 percent of the population and just over 20 percent of the time in places like Salvador, where whites are only 20 percent of the local population. On the other hand, interviewer-classified brown males are more likely to identify as black than as white while the tendencies for classification as white or black are similar for their female counterparts. Regarding the effects of education, the results in Panel A of Table 2 show that greater education tends to whiten self-classified browns. At the other end, those with medium and high education are almost never called black while those with low education are categorized as black about 15 percent of the time.10 For interviewer-classified brown males and females, Panels B and C show that the low educated are especially likely to identify as black while education makes little difference to whether they whiten.

Looking at age effects, the coefficients for age in Tables 3 to 6, when they are statistically significant, show that younger cohorts are especially likely to identify in black

10 Table 5 showed that the interaction coefficients of education by percent white are positive and significant for categorization as black of self-classified browns. Panel A of Figure 2 confirms this with a slight convergence among the different levels of education. However, the effects are slight given the much larger magnitudes of the main effects of education.
and white categories and disregard the brown category. Specifically, Table 3 shows that younger persons who identified as white or black were more likely than older persons to be categorized by interviewers as brown. Similarly, the coefficients for age in Table 6 show that younger persons that interviewers classified as brown were more likely than older persons to identify in the white or, to a lesser extent, in the black category. The findings for age show that young persons are socialized to identify increasingly in black and white categories, which upholds recent evidence suggesting that Brazilian racial classification system is becoming increasingly bipolar (Sansone 1997, Sherif 1997). Such effects may reflect cultural globalization, in which the growing influence of an African diasporic music and movie industry, dominated by societies in which racial classification is less ambiguous, may have similarly heightened racial awareness and black-white distinctions in Brazil (Sansone 1997).

DISCUSSION

The results in this study show that racial classification is not merely ambiguous or situational, both of which suggest randomness, but rather it is structured by particular characteristics of the population and urban contexts. These contexts -- including education, gender, age and local racial composition -- pattern the extent of ambiguity while phenotype, or one’s position on the racial continuum, constrains it. The extent of consistency between respondent identification and interviewer categorization varied in this study from about 20 to 100 percent, depending on these variables.

The findings demonstrate that racial ambiguity is clearly greater at the dark end of the color continuum, that education whitens but not to the extent suggested in earlier literature and that younger Brazilians are more likely than their older compatriots to avoid
the brown category and choose black or white racial categories. That is, interviewers and respondents are able to make more consistent distinctions between whites and browns than between browns and blacks, suggesting that the white-nonwhite distinction is the most conceptually clear racial divide in the minds of Brazilians. Because findings about racial inequality show smaller status differences between blacks and browns than between whites and browns, analysts sometimes create a single nonwhite category to simplify analysis (Silva 1976, Hasenbalg 1979, Lovell 1989, Telles 1994, Telles and Lim 1998). The results from this study further support collapsing the brown and black categories because the dichotomous distinctions as white and nonwhite are less ambiguous than tripartite one.

The exception to the idea of random ambiguity in previous literature is the effect of status, especially education. The findings support a whitening effect with higher education but furthers previous findings by showing greater effect at the lighter end of the color spectrum and in predominately nonwhite areas. Thus, education seems to be part of the calculus of racial classification in Brazil. However, the overall effects of whitening by education are not as great as previously suggested and, in the case of the darkest males, there are almost no effects. The classic studies in this area seem to have overstated ambiguity and the effect of higher education partly because they were based on studies of predominately nonwhite locales (Harris 1963, 1970; Hutchinson 1963; Wagley 1963).

The generally lower level of inconsistency for whites in places with more whites seems to reflect lower levels of miscegenation. Persons classified as white in predominately nonwhite urban areas may be more likely to have nonwhite ancestors and thus physically closer to the white-nonwhite boundary.

Although not anticipated in this study, gender differences were found in which women are especially likely to be categorized in lighter categories than men, especially at
the darker end of the color continuum. Education whitens women more than men, especially
at the dark end of the color continuum. Among women who identify as black, those having
at least some college education have only about a 20 percent chance of being categorized by
interviewers as black. Because I did not find research that explicitly addresses this issue, I
asked an ethnographer with vast experience in this area to comment on the findings. He
stressed a Brazilian etiquette of racial classification that is sensitive to gender, where the use
and meanings of particular terms may vary for men and women. Specifically, to refer to
another person as preto, the term for black in the Census, is considered offensive but to
refer to a woman as preta is especially demeaning and nearly inconceivable in the case of a
high status woman. 11 On the other hand, for some women to self-classify as preta may be
increasingly common, given the black movement’s emphasis on black affirmation.

This study suggests that persons may use a different logic when classifying
themselves compared to classifying others. For example, respondents are more likely to use
the black category while interviewers prefer to use the brown category. Also, education and
being female seem to whiten the classification of interviewers more than those of the
respondents.

The extent of agreement or disagreement between respondents and interviewers
depends on the categories that are chosen. In this study, the Census categories are used but
others could have been used and the choice of categories would surely affect the extent of
racial ambiguity or racial composition. For example, Harris et al (1993) show that the
replacement of the Census brown category with moreno results in smaller white and black
populations in one town. The use of an open-ended question for race would most likely
have similar consequences. Although the moreno category is particularly ambiguous

11 I thank Livio Sansone for these comments.
(Harris 1963, 1970) and includes persons that Brazilian society often refers to as “white” (Telles 1995), the Harris et al study (1993) illustrates the state’s role (through the Census) in defining the population characteristics of the society it represents.

However, the inconsistency found in this study in the use of Census categories and the infrequent popular use of the Census brown (*pardo*) category suggests that the claims that the state primarily constructs race (Omi and Winant 1986, Dominguez 1998, Jenkins 1998, Lopez 1998) are overstated for the Brazilian case. The Brazilian state in comparison to cases such as the US, have little involvement in the way particular individuals are racially classified. Many Brazilians are not always sensitive to the way they are categorized and may be reminded of their race and of the official racial categories only on those rare occasions when they look at their birth certificate or answer the decennial Census (Twine 1997). This contrasts with other systems in which race is a part of all official data gathering activities and where the state exercises control over life activities on the basis of race, as in the case of legal segregation. Indeed, the Brazilian Census has historically sought to either avoid asking about race or downplay it by using the term “color” while most other institutions avoid racial classification and enumeration altogether.

Race relations in Brazil are often compared to black-white relations in the US and to a lesser extent, to those in South Africa. Such comparative studies note, for example, that identity is more fluid and ambiguous in Brazil and this evidence supports the more general assertion that Brazilian race relations are “exceptional” (Hasenbalg 1978, Hanchard 1994, Marx 1998). However, the bulk of comparative research on race and ethnicity suggests that black-white relations in the US and South Africa may be the exception to the more typical worldwide pattern of *race relations* which is more similar to Barth’s (1959) idea of ethnicity as situational, contextual or relational (Wade 1997, Banton 1998, Jenkins 1997).
Black-white identity in the US and South Africa is particularly monolithic or essential as such racial differences were brought into sharp relief by classification laws (Davis 1991, Telles 1993). Although observers may easily classify other persons by race, some race relations paradigms may be inappropriate in contexts such as Brazil because they assume that individuals experience race as part of a social category or group or that persons can be readily classified as belonging to one or another racial group (Sansone 1997, Wade 1997).

Limiting case selection to “blacks” and “whites” in these three countries may be valuable for understanding the comparative development of societies that involved European colonization and the forced labor of Africans. However, other groups that are referred to as “racial” are found in the US today (e.g. Asians, Indians and Latinos) and previously (e.g. Irish) and in other societies. Moreover, there are others where so-called ethnic divisions bear many of the same characteristics as racial ones (Banton 1998, Jenkins 1997).

Also, ambiguously classified persons present a challenge for social science research and social policymaking. Researchers should acknowledge whether the method of data collection is suitable to their ends. For example, self-classification may be more suitable for understanding the success of attempts at black mobilization whereas interviewer-classification may be better for understanding racial inequality. Also, policymakers considering race-specific policies need to understand the problems associated with identifying members of particular racial categories. Given the potential benefits of such policies, persons that often classify in the advantaged category might be more likely to classify in a disadvantaged category, potentially diverting opportunities from those without this option and for whom their race is especially burdensome.
Finally, the survey situation may admittedly influence how a particular individual might be classified compared to another type of interaction. For example, racial classification collected in a survey may be quite different from one’s classification in a job interview because the stakes are distinct. That is, evaluation of another’s race may be more trivial for the Census interviewer than for the personnel manager. Similarly, Census respondents may be less concerned than job applicants about managing or manipulating their racial appearance. This is critical for sociological research given that the survey interview has become the standard method for collecting race data and the primary data source for studies that examine racial differences.
I thank Ananyi Dzidzenyo, Michael Mitchell, Stan Bailey, James Cavallaro and Christie Sue for comments on earlier drafts. I also thank Shige Song and Eric Costello for research assistance. This is a revised version of a paper presented at a Brown University Sociology Department colloquium in September, 1998. National Science Foundation Grant SBR-9710366 supported the research.
REFERENCES

ASSOCIAÇÃO BRASILEIRA DE ESTUDOS POPULACIONAIS 1996 Diversidades Brasileiras: Um Olhar Demográfico, Belo Horizonte: ABEP


Brasil 1996 Programa Nacional de Direitos Humanos (National Program of Human Rights) Brasília, Ministério de Justiça, Secretaria Nacional de Direitos Humanos


______ 1987. “Distância Social e Casamento Inter-Racial no Brasil” (Social Distance and Interracial Marriage in Brazil). Estudos Afro-Asiaticos 14:54-84.


Table 1. Percentage Distribution of Sample across Interviewer-Classified and Self-Classified Race Cells: Adult Population in Urban Brazil, 1995.

<table>
<thead>
<tr>
<th>Self-Classification</th>
<th>White</th>
<th>Brown</th>
<th>Black</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>48.9</td>
<td>6.2</td>
<td>0.3</td>
<td>55.4</td>
</tr>
<tr>
<td>Brown</td>
<td>6.2</td>
<td>22.5</td>
<td>2.7</td>
<td>31.4</td>
</tr>
<tr>
<td>Black</td>
<td>0.3</td>
<td>5.2</td>
<td>7.7</td>
<td>13.2</td>
</tr>
<tr>
<td>Total</td>
<td>55.4</td>
<td>33.9</td>
<td>10.7</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 2. Means of Variables by Race using Both Self and Interviewer Classification

<table>
<thead>
<tr>
<th>Variables</th>
<th>Total</th>
<th>Self-Classified Race</th>
<th>Interviewer Classified Race</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>White</td>
<td>Brown</td>
</tr>
<tr>
<td>Percent Classified as Lighter</td>
<td>--</td>
<td>--</td>
<td>18.3&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Percent Consistently Classified</td>
<td>79.1</td>
<td>88.1</td>
<td>66.5</td>
</tr>
<tr>
<td>Percent Classified as Darker</td>
<td>--</td>
<td>11.9&lt;sup&gt;c&lt;/sup&gt;</td>
<td>15.3&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Low Education</td>
<td>61.3</td>
<td>56.8</td>
<td>64.9</td>
</tr>
<tr>
<td>Medium Education</td>
<td>29.2</td>
<td>31.4</td>
<td>29.4</td>
</tr>
<tr>
<td>High Education</td>
<td>9.5</td>
<td>12.8</td>
<td>5.8</td>
</tr>
<tr>
<td>Percent White in Urban Area</td>
<td>55.8</td>
<td>61.5</td>
<td>48.0</td>
</tr>
<tr>
<td>Female</td>
<td>50.0</td>
<td>50.0</td>
<td>50.0</td>
</tr>
<tr>
<td>Age</td>
<td>35.4</td>
<td>36.0</td>
<td>34.7</td>
</tr>
<tr>
<td>Number of Cases</td>
<td>4508</td>
<td>2499</td>
<td>1420</td>
</tr>
</tbody>
</table>

<sup>a</sup> Classified as lighter by interviewer
<sup>b</sup> Classified as lighter by respondent
<sup>c</sup> Classified as darker by interviewer
<sup>d</sup> Classified as darker by respondent
Table 3. Logit Regression Results Predicting Consistent Classification by Interviewer among Self-Classified White and Black Adults in Urban Brazil, 1995.

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>White</th>
<th>Black</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium Education</td>
<td>1.084***</td>
<td>-.234</td>
</tr>
<tr>
<td></td>
<td>(.167)</td>
<td>(.275)</td>
</tr>
<tr>
<td>High Education</td>
<td>1.980***</td>
<td>.432</td>
</tr>
<tr>
<td></td>
<td>(.368)</td>
<td>(.564)</td>
</tr>
<tr>
<td>Percent White in Urban Area</td>
<td>.250***</td>
<td>.066</td>
</tr>
<tr>
<td></td>
<td>(.027)</td>
<td>(.052)</td>
</tr>
<tr>
<td>Female</td>
<td>.146</td>
<td>-.871</td>
</tr>
<tr>
<td></td>
<td>(.132)</td>
<td>(.467)</td>
</tr>
<tr>
<td>Age</td>
<td>.016**</td>
<td>.019**</td>
</tr>
<tr>
<td></td>
<td>(.005)</td>
<td>(.006)</td>
</tr>
<tr>
<td>Percent White * Female</td>
<td></td>
<td>.177*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.079)</td>
</tr>
<tr>
<td>Medium Education * Female</td>
<td>.972*</td>
<td>(1.419)</td>
</tr>
<tr>
<td>High Education * Female</td>
<td>-1.391*</td>
<td>(1.857)</td>
</tr>
<tr>
<td>Intercept</td>
<td>-.567</td>
<td>-.735</td>
</tr>
</tbody>
</table>

N: 2470 591
Log Likelihood Chi²: 187.08 42.20

* p < .05 ** p < .01 *** p < .001
() indicate standard deviations.

Note: Omitted categories are primary education. Age is continuous variable; percent white is recoded into 10 categories.
Table 4. Logit Regression Results Predicting Consistent Classification by Respondent among Interviewer-Classified White and Black Adults in Urban Brazil, 1995.

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>White</th>
<th>Black</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium Education</td>
<td>.202*</td>
<td>.248</td>
</tr>
<tr>
<td></td>
<td>(.142)</td>
<td>(.253)</td>
</tr>
<tr>
<td>High Education</td>
<td>.622*</td>
<td>.232</td>
</tr>
<tr>
<td></td>
<td>(.225)</td>
<td>(.534)</td>
</tr>
<tr>
<td>Percent White in Urban Area</td>
<td>.176***</td>
<td>.040</td>
</tr>
<tr>
<td></td>
<td>(.026)</td>
<td>(.043)</td>
</tr>
<tr>
<td>Female</td>
<td>.178</td>
<td>.223</td>
</tr>
<tr>
<td></td>
<td>(.126)</td>
<td>(.205)</td>
</tr>
<tr>
<td>Age</td>
<td>.009</td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td>(.004)</td>
<td>(.007)</td>
</tr>
<tr>
<td>Intercept</td>
<td>.351</td>
<td>.436</td>
</tr>
</tbody>
</table>

N 2478 480

Log Likelihood Chi$^2$ 59.81 3.41

* p < .05 ** p < .01 *** p < .001
() indicate standard deviations.

Note: Omitted categories are primary education. Age is continuous variable; percent white is recoded into 10 categories.
Table 5. Multinomial Logit Regression Coefficients Predicting Interviewer-Classification as White or Black among Self-Classified Brown Adults in Urban Brazil, 1995.

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>As White</th>
<th>As Black</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium Education</td>
<td>.256*</td>
<td>-1.663**</td>
</tr>
<tr>
<td></td>
<td>(.156)</td>
<td>(.640)</td>
</tr>
<tr>
<td>High Education</td>
<td>.654*</td>
<td>-3.407**</td>
</tr>
<tr>
<td></td>
<td>(.267)</td>
<td>(1.951)</td>
</tr>
<tr>
<td>Percent White in Urban Area</td>
<td>.127***</td>
<td>.002</td>
</tr>
<tr>
<td></td>
<td>.030)</td>
<td>(.047)</td>
</tr>
<tr>
<td>Female</td>
<td>-.100</td>
<td>-.289</td>
</tr>
<tr>
<td></td>
<td>(.137)</td>
<td>(.194)</td>
</tr>
<tr>
<td>Age</td>
<td>.003</td>
<td>.004</td>
</tr>
<tr>
<td></td>
<td>(.005)</td>
<td>(.007)</td>
</tr>
<tr>
<td>Medium Education * Percent White</td>
<td>.234*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.102)</td>
<td></td>
</tr>
<tr>
<td>High Education * Percent White</td>
<td>.488*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.268)</td>
<td></td>
</tr>
</tbody>
</table>

Intercept         -2.145  -1.980
N                  1383    41.13

* p < .05 ** p < .01 *** p < .001
() indicate standard deviations.

Note: Omitted categories are primary education. Age is continuous variable; percent white is recoded into 10 categories.
Table 6. Multinomial Logit Regression Coefficients Predicting Self-Classification as White or Black among Interviewer-Classified Brown Adults in Urban Brazil, 1995.

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>As White</th>
<th>As Black</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium Education</td>
<td>-.466*</td>
<td>-.687***</td>
</tr>
<tr>
<td></td>
<td>(.177)</td>
<td>(.175)</td>
</tr>
<tr>
<td>High Education</td>
<td>-.066</td>
<td>-.738***</td>
</tr>
<tr>
<td></td>
<td>(.335)</td>
<td>(.390)</td>
</tr>
<tr>
<td>Percent White in Urban Area</td>
<td>.016</td>
<td>.035</td>
</tr>
<tr>
<td></td>
<td>(.044)</td>
<td>(.030)</td>
</tr>
<tr>
<td>Female</td>
<td>.559</td>
<td>-.269</td>
</tr>
<tr>
<td></td>
<td>(.349)</td>
<td>(.139)</td>
</tr>
<tr>
<td>Age</td>
<td>-.014*</td>
<td>-.008</td>
</tr>
<tr>
<td></td>
<td>(.006)</td>
<td>(.005)</td>
</tr>
<tr>
<td>Female * Percent White</td>
<td>-.138*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.064)</td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>-.856</td>
<td>-.871</td>
</tr>
</tbody>
</table>

|                        |              |
|                        | N            | Log Likelihood Chi² |
|                        | 1486         | 39.81              |

* p < .05  ** p < .01  *** p < .001
( ) indicate standard deviations.

Note: Omitted categories are primary education. Age is continuous variable; percent white is recoded into 10 categories.
A. Females by Self-Classified Color

B. Males by Self-Classified Color

C. Males and Females by Interviewer-Classified Color

Figure 1. Predicted Probability of Being Consistently Classified by Color, Type of Classification, Sex, Education and Percent White
Figure 2. Predicted Probability of Being Classified as White, Brown or Black among Brown Persons by Type of Classification, Sex, Education and Percent White in Urban Area