

How social status shapes race

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We show that racial perceptions are fluid; how individuals perceive their own race and how they are perceived by others depends in part on their social position. Using longitudinal data from a representative sample of Americans, we find that individuals who are unemployed, incarcerated, or impoverished are more likely to be seen and identify as black and less likely to be seen and identify as white, regardless of how they were classified or identified previously. This is consistent with the view that race is not a fixed individual attribute, but rather a changeable marker of status.

Since at least the 19th century, the dominant understanding of race has been that racial divisions are rooted in biological differences between human populations (1). For the past 50 years or more, social scientists have challenged that notion, claiming that races are instead created through social processes and subject to economic and political calculation (2). However, even in disciplines where race is viewed as socially defined, most empirical studies continue to treat race as a fixed attribute of a particular individual (3). We examine two conceptions of race—how individuals are racially classified by others and how they identify themselves—and find that both change over time. Further, we show that this temporal variation is related to the individuals' social position: People who are unemployed, incarcerated, or impoverished are more likely to be classified and identify as black, and less likely to be classified and identify as white, regardless of how they were classified or identified previously. This study is the first to examine changes in racial classification using a representative longitudinal sample, and our findings suggest that race is not a fixed characteristic, but rather a flexible marker of social status.

To examine changes over time in racial classification and self-identification, we analyze data from the National Longitudinal Survey of Youth (NLSY), which contains multiple measures of interviewer-classified and self-identified race over a twenty-year period. In each survey year between 1979 and 1998, NLSY interviewers were instructed to record their assessment of whether respondents were “White,” “Black,” or “Other” at the end of the interview. Respondents also self-reported their race in 2 years: In 1979 they were asked for their ‘origin or descent,’ and in 2002 they were asked whether they were of Hispanic origin and the ‘race or races’ they considered themselves to be.

Results

We begin by examining changes in racial classification, an often overlooked aspect of race that is nevertheless important because discrimination presumably rests on how people are perceived by others (4). Twenty percent of the 12,686 individuals in the sample experienced at least one change in how they were racially classified by interviewers over the 19-year period. This degree of fluidity is surprising because the United States is typically characterized as having uniquely rigid racial boundaries (5). Yet, the variation is clearly illustrated by the respondents' racial classification histories: If we represent being classified as white, black or other in a given year by the letters w, b, and o respectively, we see that some people are consistently classified over time (wwwwwwwwwwwwwwww) or have only one discrepant classification (wwwwwwwwwwbwwww), whereas other people vary considerably over time (wwooooowbbbobow) or experience a shift in their racial classification at some point

(bbbbbbwwbwwwwwwww). It is possible that these changes could be the result of coding mistakes made by the interviewers; for example, where interviewers meant to record “White” but mistakenly recorded “Black.” However, we find that changes in respondents' gender classification, which was also recorded by interviewers at the end of the survey, occur in just 0.27% of the cases. The much higher percentage of changes in racial classification from year-to-year (6%) suggests that the variation cannot be attributed to coding mistakes alone.

To assess whether these changes in racial classification are related to differences in social status, we focus our analysis on the likelihood of being classified by an interviewer as white (Fig. 1A) or black (Fig. 1B). Fig. 1A reports the percentage of individuals who were classified as white in the previous year who are perceived to be white in the current year for three indicators of socioeconomic status: incarceration, unemployment, and poverty. Fig. 1B shows the same comparison for individuals who were classified as black. We find that individuals who were classified as white in the previous year are less likely to be seen as white if they are currently incarcerated, unemployed, or have household incomes below the poverty line. For example, among respondents who were classified as white in the previous year (Fig. 1A), 96% of nonincarcerated respondents are classified as white the following year, whereas only 90% of incarcerated respondents are still seen as white.

In contrast, respondents who were classified as black in the previous year are more likely to be seen as black in the current year if they are incarcerated, unemployed, or have incomes below the poverty line (Fig. 1B). Although the differences in the likelihood of being classified as black are not as large as they are for being classified as white, all of the differences in racial classification between high- and low-status individuals are statistically significant ($P < 0.05$, two-tailed test) and robust to several multivariate model specifications, including the addition of person fixed effects (See supporting information (SI) Table S1 and SI Text).

Fig. 2 reports changes in racial self-identification by comparing data from 1979 and 2002 only. The results mirror the findings for interviewer-classified race in both substance and magnitude. Among respondents who identified as white in 1979 (Fig. 2A), we find 97% of never-impoverished respondents identified as white in 2002, whereas just 93% of respondents who experienced poverty (between 1979 and 2002) still identified as white. These results underscore not only that racial self-identification can be fluid (6), but also that changes in identification are related to the respondents' social position.

Discussion

The variation over time in racial classification and identification is at odds with the view that race is an attribute of individuals that

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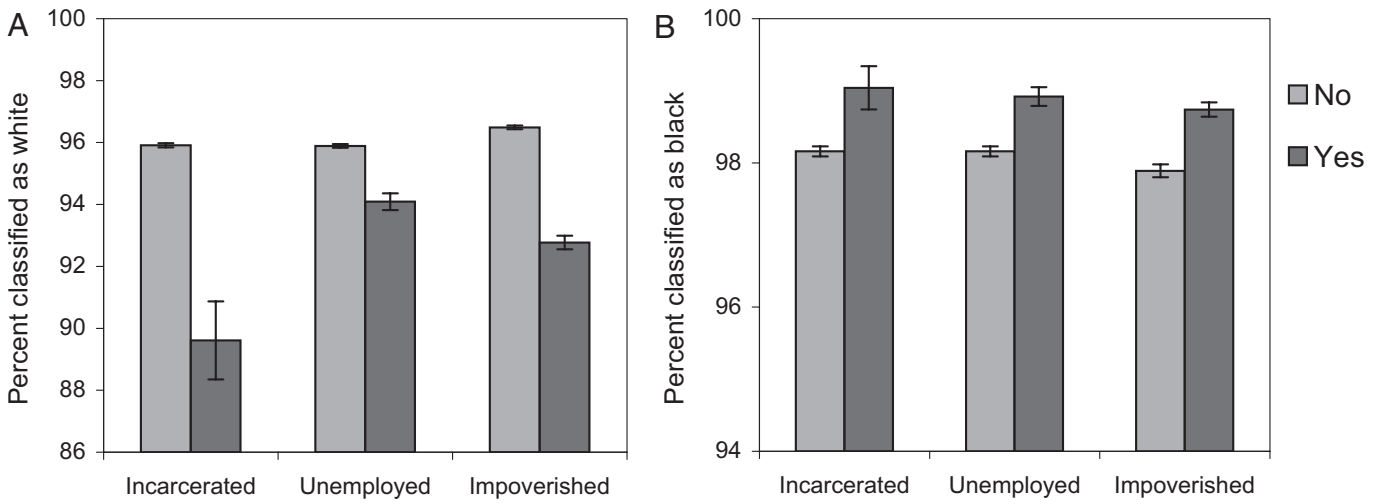


Fig. 1. Racial classification by interviewer and current social status, 1979–1998. Source: National Longitudinal Survey of Youth. (A) The percentage of respondents perceived to be white by the survey interviewer in the current year, restricted to respondents who were classified as white in the previous year. (B) The percentage of respondents perceived to be black in the current year, restricted to respondents classified as black in the previous year. Incarcerated indicates whether the respondent was interviewed while in prison; unemployed indicates whether the respondent was unemployed at the time of the interview; and impoverished indicates whether the respondent’s household income was below the poverty line. Observations are person-years. Error bars, \pm 1SE.

is fixed at birth, and thus predates subsequent life outcomes, such as income or incarceration. Instead, we might think of individuals as having competing propensities for being classified into or identifying with different racial groups. Changes in these propensities likely reflect, in part, the imprecision of dividing continuous human variation into a few discrete categories (7), as well as contextual variation in the location of racial divisions (1, 2, 5, 8). However, our findings also support the idea that racial propensities can be altered by changes in social position, much as a change in diet or stress level can alter a person’s propensity to die of heart disease as opposed to cancer. This suggests that racial stereotypes can become self-fulfilling prophecies: although black Americans are overrepresented among the poor, the unemployed and the incarcerated, people who are poor, unemployed or incarcerated are also more likely to be seen and identify as black and less likely to be seen and identify as white.

Thus, not only does race shape social status, but social status shapes race.

Materials and Methods

The 1979 cohort of the NLSY is a nationally representative sample of 12,686 American men and women who were 14 to 22 years of age when first surveyed in 1979. Respondents were eligible to be interviewed every year thereafter, until 1994, when interviews began occurring biennially. For this study, we draw on data from 1979 to 2002, the most recent year in which racial data were collected, and we use person-years as our unit of analysis.

Racial Classification by Interviewers. Interviewers were instructed to classify the respondent’s race once the interview was completed. Thus, they did so with knowledge of a range of information about the respondent, from their income and education, to their employment and marital history, and, in the case of 1979, the respondents’ self-reported race. Interviewers were not given any special instructions as to how to classify the respondents by race (9), and

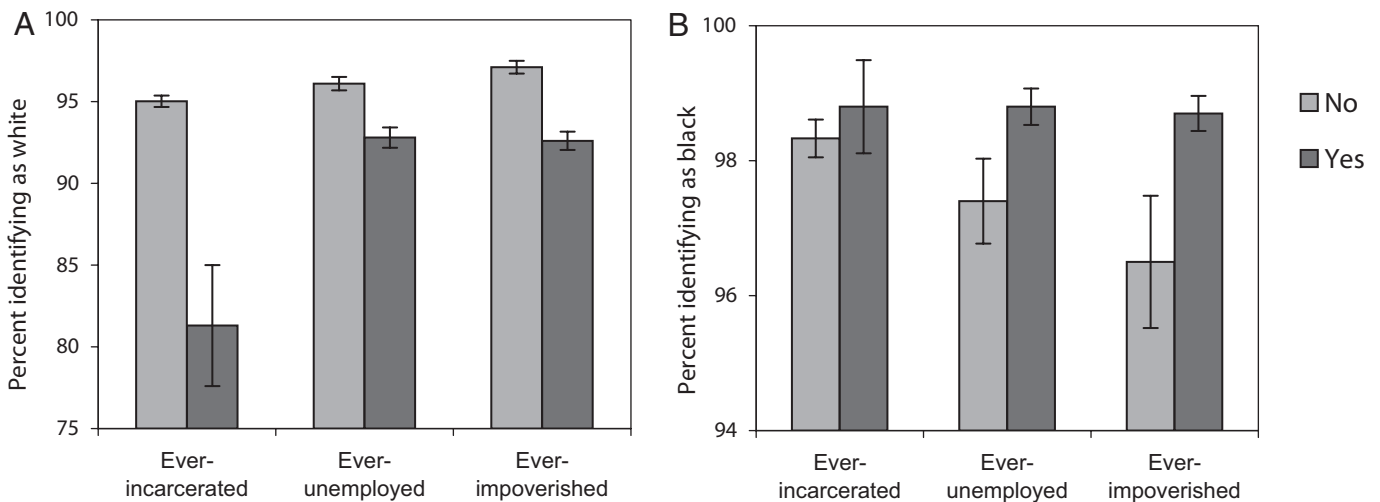


Fig. 2. Racial self-identification and cumulative social status, 2002. Source: National Longitudinal Survey of Youth. (A) The percentage of respondents who self-identified as white in 2002, restricted to respondents who identified as white in 1979. (B) The percentage of respondents who identified as black in 2002, restricted to respondents who identified as black in 1979. Ever-incarcerated refers to whether the respondent was ever interviewed while in prison; ever-unemployed refers to whether the respondent was ever unemployed for >4 months in a calendar year; and ever-impoveryished refers to whether the respondent’s household income was ever below the poverty line. Error bars, \pm 1SE.

the only categories available to them were: "Black," "White," and "Other." NLSY interviewers are predominantly female, white and highly educated (i.e., 92% of respondents were interviewed by women, 84% by interviewers who self-identified as white, and 39% by college graduates), characteristics typical among survey interviewers in general.

Racial Self-Identification. In 1979, respondents were handed a card with 28 possible origin or descent responses, including categories such as "Black, Afro-American or Negro," "English," "Cuban," and "Vietnamese." NLSY coded up to six responses. In 2002, following the updated federal standards for collecting data on race/ethnicity (10), respondents were asked two separate questions: one about Hispanic origin and one about race; the latter allowed for multiple mentions among the six categories (White, Black or African American, Asian, Native Hawaiian or other Pacific Islander, American Indian or Alaska native, some other race). We use these responses to create binary variables for reporting as "White," "Black," and "Other." Respondents who offered multiple mentions may have "yeses" on more than one of these variables. Although simplified, this coding scheme allows for comparisons both over time and to the interviewer's racial classification.

It is important to note that in 1979 "White" is not on the list of accepted self-identified origin or descent responses. Instead, respondents selected from European ethnic/national categories, such as "Irish," "French," "Portuguese," and "Russian." To examine changes in self-identification over time, we collapse these 1979 responses into a single "European" category that is then compared with self-identified "Whites" in 2002. Thus, our analyses do not count reporting "Greek" in 1979 and "White" in 2002 as a change in identification over time. In other analyses, we distinguished between Europeans from northwestern and southeastern countries (e.g., English, French, German vs. Italian, Russian, and Greek) because of research suggesting Southeastern Europeans were racialized differently in the United States until the mid-20th century (8), but we found little difference in the likelihood of change in racial/ethnic identification between these two European-origin groups.

In both 1979 and 2002, the residual "Other" category includes American Indian, Asian, Pacific Islander, and Hispanic/Latino responses. In 2002, people who reported they were Hispanic on the Hispanic origin question and gave an answer to the race question are included in more than one category (e.g., respondents who answered "yes" to the Hispanic origin question and "White" to the race question are coded in our data as "Other" and "White"). We argue that this coding more accurately reflects their responses than creating separate mutually exclusive categories, particularly given that a significant number of respondents refused to respond to the race question after identifying themselves as Hispanic. It is also important to note that Fig. 2 examines only respondents who identified as white or black in 1979. Thus, a respondent who answered only "Mexican" in 1979 and "Hispanic" and "White" in 2002 is not included in Fig. 2A, whereas a respondent who answered "Mexican" and "Irish" in 1979 and "Hispanic" and "White" in 2002 is included in the Fig. and is coded in both years as "White" (and "Other").

Analytic Approach. Given the different time spans covered by our dependent variables we take two approaches to examining the effects of these factors on changes in racial classification and identification. For the racial classification analyses we have information from each survey year, so Fig. 1 depicts the relationship between one's current social position and one's current racial classification. For the racial identification analyses, because we have measures of self-reported race at just two time points 23 years apart, Fig. 2 depicts whether respondents have ever experienced a loss of status in these areas.

As one might expect, characteristics of the respondents, such as whether they identify as Hispanic or with multiple origins, and characteristics of the interviewers, such as their own racial self-identification, affect the racial classification and identification process. To take this into account, we introduce a host of such controls in our multivariate models (see *SI Text*). The effects of social status discussed above remain significant net of these other factors, suggesting that social position plays an important role in the racial classification and self-identification of all Americans.

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Supporting Information

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SI Text

Supplementary Analysis. To ensure that the results presented in Figs. 1 and 2 are not being driven by other characteristics of the respondents or factors related to the context of the interview, we estimated a series of models predicting racial classification and self-identification with increasingly rigorous controls, including: interviewer characteristics (self-identified race, gender, age, and education), respondent characteristics (gender, age, education, marital status, region of residence, urban residence, and whether they identified as Hispanic in 1979), and year fixed effects. Our results were consistent whether estimated on the full NLSY sample, on the subset of respondents who identified with only one racial/ethnic origin in 1979, or on the subset of respondents who did not identify as being of Hispanic origin or descent in 1979. (It is worth noting that 16% of respondents reported a Hispanic origin in 1979 whereas just 6% self-identified as Hispanic in 2002. Thus, the 1979 measure is the more conservative restriction to test whether or not significant within-individual racial change is limited to Americans who self-identify as Hispanic.)

In our final models, we added respondent fixed effects to obtain the effect of social status net of all time invariant person-specific characteristics that may play a role in racial classification and identification (e.g., skin tone, facial features,

and name). The fixed effects also account for any race-related selection biases that reflect who is most likely to go to prison, lose their job, or have incomes below the poverty line. These models can be thought of as providing within-person estimates of the effects of the variables of interest; so we are in essence comparing racial classifications and self-identifications of particular individuals from when they are and are not, for example, unemployed. Although fixed effects models do not model changes per se, we introduce temporal ordering into the variables (e.g., by measuring whether respondents had ever been incarcerated), which allows us to examine the lasting effects of entering different social positions, and to compare respondents' classification outcomes pre- and post-incarceration. Thus, we can interpret the results as describing how a change in social position affects an individual's propensities to identify and be classified as either black or white.

Table S1 presents results from the final models, which show that even after introducing person fixed effects statistically significant relationships between social status and racial classification and identification remain. This suggests that changes in racial classification and identification are not solely the result of unmeasured respondent characteristics. Instead, our results say something more general about the definitions and perceptions of race in the United States.

Table S1. Ordinary Least Squares regression models predicting racial classification and identification

	Classified as white	Classified as black	Identified as white	Identified as black
Incarceration (standard error)	-.006 (0.005)	0.004* (0.002)	-.039* (0.017)	0.007 (0.006)
Unemployment	-.003 (0.002)	0.002* (0.001)	-.010 (0.008)	0.008** (0.003)
Poverty	0.004 (0.002)	-.001 (0.001)	-.013 (0.008)	0.003 (0.003)
Constant	0.639** (0.005)	0.267** (0.002)	0.560** (0.027)	0.259** (0.010)
Interviewer characteristics	X	X	X	X
Respondent characteristics and fixed effects	X	X	X	X
Year fixed effects	X	X	X	X
N (person-years)	177604	177604	20285	20285

Notes: X indicates controls were included. Standard errors for models account for clustering within respondent. Incarceration refers to whether an individual has ever been interviewed while in prison, unemployment refers to whether an individual has ever been unemployed for more than four months, and poverty refers to whether the respondent's household income was ever below the poverty line.

*, $p < 0.05$; **, $p < 0.01$.