

# Policing the Boundaries of Blackness: How Black and White Americans Evaluate Racial Self-Identifications<sup>1</sup>

Marissa E. Thompson  
*Columbia University*

AJ Alvero  
*Cornell University*

Sam Trejo  
*Princeton University*

Daphne O. Martschenko  
*Stanford University*

How do people assess the authenticity and legitimacy of another person's racial self-identification? This study explores the racial conceptions held by both Black and White Americans as they decide who they believe can—and cannot—self-identify as Black across a range of contexts. We examine how a person's responses compare to their perceptions of how other Americans evaluate racial claims. Using a series of survey experiments, we find that respondents privilege the information contained in genetic ancestry tests over and above other attributes, such as self-identification. We do not observe meaningful differences by race in the treatment effects, illustrating the shared nature of these schemas. However, we find a discordance between respondents' beliefs and their perceptions of how other Americans would respond in similar settings, suggesting that the attributes people themselves use in both classifications and to judge authenticity differ from their perceptions of the broader social "rules" regarding race.

In 2014, Ralph Taylor, a business owner who had always previously self-identified as White, learned about an affirmative action program that benefited minority-owned businesses. He then took a genetic ancestry test (GAT)

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and submitted the results as “proof” that he could self-identify as Black; his results indicated that about 4% of his genome shared similarity with populations from Sub-Saharan African (SSA) regions.<sup>2</sup> The government officials charged with certifying his status, however, did not agree. Citing his appearance, his lack of non-White relatives or ancestors, and the dearth of demonstrable “evidence that Mr. Taylor has personally suffered social and economic disadvantage by virtue of being a Black American,” the officials ultimately denied his claim (Zhang 2018). Not long after, Taylor unsuccessfully sued both the State of Washington and the federal government, attempting to use his GAT results as legal evidence that he should be able to identify as a racial minority and therefore benefit from the program.

How do people assess the authenticity and legitimacy of another’s racial self-identification?<sup>3</sup> This question has become increasingly important as the US experiences a considerably changing racial landscape. On the one hand, the multiracial population has steadily grown, resulting in an increased number of individuals with potential claims to multiple racial identities or with racially ambiguous appearances (Harris and Sim 2002; Gullickson and Morning 2011; Starr and Pao 2024). On the other hand, not all racial self-identifications carry the same implications or are equally likely to be seen as authentic by

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<sup>2</sup> Although these direct-to-consumer tests are commonly referred to as “genetic ancestry tests,” some argue that the term “ancestry” is a misnomer for the information they provide. In reality, GATs simply describe a person’s genetic similarity to various present-day—rather than ancestral—reference populations (Coop 2022; National Academies of Sciences, Engineering, and Medicine 2023). GAT companies provide personal ancestry information to consumers by comparing genetic ancestry information (i.e., the DNA inherited from one’s biological ancestors; Mathieson and Scally 2020) to various present-day reference populations, which are then collapsed into simple geographic categories (e.g., “an estimated 75% of your ancestors are from Southern Europe” and “an estimated 25% are from Central America”). Importantly, while an individual’s genetic ancestry is complex and continuous, GAT results are simplified into discrete, coarse categories. For simplicity and to align with the ways that they are often understood by consumers, for the purposes of this study—unless otherwise specified—we use the term “ancestry” to refer to the information captured by GAT results.

<sup>3</sup> Racial self-identifications describe the race/ethnicity that a given person self-identifies with (e.g., Black or White). For simplicity, we use “racial identification” and “racial self-identification” interchangeably in this study. On the other hand, racial classifications describe the process of categorizing another person into one racial category or another (Saperstein and Penner 2012; Roth 2016).

external observers. Indeed, numerous personal characteristics shape how the integrity of a particular racial self-identification is judged, such as ancestry and GAT results, context, or perceptions of one's past experiences of discrimination. If Ralph Taylor's GAT result showed slightly higher SSA ancestry, would he have encountered a different reaction? If the officials believed that he had experienced racial discrimination and social disadvantage, would that have led them to accept his racial self-identification as Black? Regardless of one's views on Taylor's controversial case, it is clear that there are ambiguous social rules about how individuals on the margins ought to identify and in what contexts such identifications are considered appropriate.

This study examines how people police the boundaries of Blackness in assessing whether a particular self-identification as Black is considered authentic and legitimate. Through two novel survey experiments, we shed light on how people assess and construct ideas of legitimacy when considering another's racial self-identification, with a focus on racially ambiguous individuals. Specifically, we assess how characteristics such as ancestry information, whether the individual is filling out a census or a scholarship application, and the prior self-identification of the individual each affect perceptions of the acceptability of a self-identification as Black. Further, given that prior work suggests that there may be differences in the racial schemas held by in- and out-groups, we examine these patterns among both Black and White Americans (Dubriwny, Bates, and Bevan 2004; Feliciano 2016). Across experiments, our goal is not to determine an exhaustive list of the characteristics that shape classification, but rather to shed light on how people process such information and leverage it in crafting normative judgments about another's racial self-identification. Do people see some sources of information, such as GAT results, as more objective (and therefore authentic) than others? Do material stakes, such as identifying as Black on a scholarship application, shape how people judge particular identifications?

Importantly, to establish how people conceptualize authenticity in racial contexts, it is insufficient to examine only how individuals themselves classify and evaluate others. As people navigate their own perceptions of a given individual (i.e., their first-order beliefs), they also grapple with their perceptions and beliefs about the broader social order, or the norms governing how other Americans would respond in similar scenarios. Perceptions of the consensus beliefs of others—defined as *generalized second-order beliefs*<sup>4</sup>—provide a critical window into how racial classifications are made because such decisions occur in a social context, where the expected views of others may be consequential (Weber 1968; Johnson, Dowd, and Ridgeway 2006; Correll et al. 2017; Mildenerger and Tingley 2019; Mize 2024). For example, prior

<sup>4</sup> Generalized second-order beliefs are also called third-order inferences in some literatures (Correll et al. 2017; Melamed et al. 2019; Mize 2024). Here, for simplicity, we use the terms “*generalized second-order beliefs*” and “*second-order beliefs*” interchangeably.

literature has shown that, even when people's first-order views diverge from their perceptions of consensus beliefs, they still uphold norms that they believe reflect socially legitimate systems (Walker, Rogers, and Zelditch 1988; Melamed et al. 2019). Likewise, perceptions of whether others will accept a given racial identity have been shown to affect an individual's own self-identification decision (Roth and Ivemark 2018). And yet, whether and how individual beliefs align with perceptions of the broader social order has not been clearly established, a critical oversight in understanding how racial schemas are constructed and deployed.

Our study makes three contributions to sociological literatures. To preview our results, we first find that people privilege ancestry information over both prior identification and context in making classifications and evaluations of other's self-identifications. Our findings further suggest that the outsized effect of ancestry information is due to the fact that both Black and White respondents primarily consider it to be a mark of honesty and legitimacy in who can self-identify as Black, rather than an indicator of past experiences of discrimination or of shared cultural heritage with the Black community. Second, we find that Black and White Americans generally align in the ways that they police the boundary around who can self-identify as Black, illustrating the shared nature of such schemas across in- and out-groups. Third, we find that the characteristics and cues that affect how respondents evaluate racial claims do not neatly align with those that they perceive to matter to other Americans writ large, suggesting that the markers that people themselves use in judgments differ from their perceptions of the social "rules" regarding race. However, with our nationally representative sample, we show that perceptions of other Americans' beliefs are inaccurate: If respondents truly did know what the average American believed, averaged first-order responses would align with perceptions of how others would respond. Moreover, both Black and White respondents rate their own approval and perception of integrity as higher than other in-group Americans. In all, our results illustrate a broad pluralistic ignorance toward the racial schemas held by others, which may have consequences for both individually held beliefs as well as behaviors.

Taken all together, our work builds on literatures on the markers that shape classification, the policing of racial boundaries, and the construction of conceptions of authenticity and legitimacy to offer an explanation for how both Black and White Americans police the boundary around Blackness and conceptualize legitimacy.

## BACKGROUND

### Racial Classifications and Schemas

Racial classification logics shape the racial structure of the US, which in turn affects mechanisms of stratification such as racial discrimination and

prejudice (Saperstein, Kizer, and Penner 2015; Feliciano 2016; Roth 2018; Monk 2022). While a large body of literature on race in sociology has focused on the characteristics that shape racial self-identification, how an individual racially identifies does not necessarily map onto how others perceive them (Campbell and Troyer 2007; Feliciano 2016; Roth 2016; López and Hogan 2021; Huang 2023). Indeed, scholars categorize race in the US as a “supraindividual” trait (Brubaker 2016*a*), rather than a subjective individual identity alone. In this sense, someone without any societally accepted claim to a racial identity<sup>5</sup> may be seen as illegitimate and inauthentic by others (e.g., consider Rachel Dolezal, a woman with two White parents who began self-identifying as Black and was met with widespread criticism and rebuke; Brubaker 2016*a*). The decision to identify as Black is, then, an iterative process between individual and collective perception.

This study examines the racial schemas—“the bundle of racial categories and the set of rules for what they mean, how they are ordered, and how to apply them to oneself and others” (Roth 2012, p. 12)—that both Black and White Americans hold as they classify and evaluate a fictitious individual. These schemas reflect understandings about the nature of race that are perceived to be shared across populations (Brubaker 2016*a*; Boutyline and Soter 2021; Schachter, Flores, and Maghbouleh 2021; Thompson 2025). Further, they shed light on how people make distinctions between in- and out-groups and how status and power differentiations between “us” and “them” emerge (Weber 1968; Lamont and Molnár 2002). These distinctions are not made in a vacuum; they are the outcome of a social process that is negotiated by groups on either side of a boundary divide (Wimmer 2008, 2013; Okamoto 2014). Yet each racial/ethnic boundary is specific in its attributes; boundaries vary in their characteristics across history and spatial contexts (Gullickson 2010; Fox and Guglielmo 2012; Penner and Saperstein 2013), power dynamics and hierarchies between groups (Wimmer 2013), and whether they are “bright” or “blurred” in their permeability to outsiders (Alba 2005).

In this work, we focus specifically on the boundary that defines who can—and cannot—identify as Black, as judged socially by both Black and White observers. We do so for several reasons. First, there is a long legacy of the Black-White binary in American racial politics and the perception that this division presents the starkest racial dichotomy (Morning 2011; Lee and Bean 2012; Omi and Winant 2014). For example, over 100 years after Du Bois (1903) first observed the “problem of the color line,” Black Americans continue to face profound disadvantages in terms of wealth and income inequality (Massey and Denton 2003; Hamilton 2019; Chetty et al. 2020), educational opportunity

<sup>5</sup> An individual’s racial identity may incorporate a number of dimensions (see Roth 2016 for an overview). In this study, we focus on reactions to one’s racial self-identification/self-reported race.

(Johnson 2019; Reardon, Kalogrides, and Shores 2019), health (Reskin 2012; Aizer and Currie 2014), and access to stable housing (Desmond 2016; Rothstein 2017). In particular, the racial boundaries defining Blackness have been unique in the US and globally in the historical legal enshrinement of “one-drop” rules (Davis 2001), where any (presumed) recent African ancestors would result in classification as Black. This has resulted in a wide range of phenotypic features that tend to be socially categorized as Black, including a range of skin tones and hair textures (Gullickson and Morning 2011; Brubaker 2016*b*; Roth and Ivermark 2018).

Further, prior research suggests that Black observers may differ meaningfully from non-Black observers in their racial schemas (Dubriwny et al. 2004; Feliciano 2016; Chen, Pauker, et al. 2018). For example, Dubriwny et al. (2004), drawing evidence from a series of focus groups with both Black and White Americans, highlighted that Black Americans were more likely than other racial groups to view race as socially constructed and jointly shaped by culture, discrimination, and segregation. Further, White Americans tended to express a heavier reliance on physical characteristics in defining race, although both Black and White focus group participants generally believed race to have a genetic component. Recent work has also illustrated that Black Americans, when classifying others, place a larger weight on whether either of a person’s parents identify as Black than do White Americans (Roberts, Bareket-Shavit, and Wang 2021). Finally, several studies have illustrated that Black Americans are more likely to classify multiracial Black individuals as Black compared to other racial groups (Ho, Kteily, and Chen 2017). While recent work has highlighted that classification rules do not differ by race on average (Abascal et al. 2025), we explore the extent to which Black and White Americans align in their conceptions of race and authenticity.

Finally, we examine classification as Black because of the unique position that Black Americans occupy with regard to policies designed to redress historical inequality and wrongs. For example, until June 2023, when the use of race-based affirmative action was overturned in higher education contexts by the Supreme Court, about a third of selective colleges and universities practiced some form of affirmative action benefiting Black students and other historically excluded racial/ethnic groups (Hirschman and Berrey 2017). This introduces the possibility that individuals may attempt to misrepresent their racial identity, experiences, or personal history in an effort to gain a presumed competitive advantage for educational or labor market opportunities. For example, there exists anecdotal evidence of college applicants using GATs to justify their racial self-identification on admission or financial aid applications, even in cases where they might not typically identify as such in their everyday lives (Harmon 2006; Brubaker 2016*a*; Morning 2018). As a result, classification as Black may vary across contexts in ways that shed light on the permeability (or lack thereof) of this boundary.

## Constructing Racial Legitimacy

How do people determine when a particular racial identification is legitimate? While the prior literature has examined questions on the particular sets of attributes that shape classification, much less is known about how people determine when a particular racial self-identification is socially permissible. To establish these patterns, we draw from literatures that examine how legitimacy is established and maintained. Actions are perceived to be legitimate when they are considered to be in line with the social order (Johnson et al. 2006; Zelditch 2006; Schoon 2022). Even if a given individual does not necessarily agree with these norms, their presumptions of the social rules—those that are accepted by most others—shape their behavior and the ways that they police boundaries (Correll et al. 2017; Mildenerger and Tingley 2019; Mize 2024). Indeed, a long line of literature in sociology and social psychology illustrates how beliefs about beliefs can become self-reinforcing; that is, people conform to social norms that they perceive to represent the views of the majority even if they themselves disagree with or are uncomfortable with such ideas (O’Gorman 1975; O’Gorman and Garry 1976; Prentice and Miller 1993).

To fully understand and measure conceptions of legitimacy, it is important to examine two levels: both respondents’ individually held beliefs and their beliefs about shared social norms. First, we examine how respondents themselves perceive the fictitious, target individual, with a focus on the traits that shape perceptions of legitimacy and honesty, among others. These findings illustrate how a particular individual deploys norms in first-order terms. Second, we examine how each respondent believes that “most others” in their racial group will respond (i.e., generalized second-order beliefs). Only by examining both the perceptions of the respondent *as well as their perceptions of the extent to which these views are shared* can we fully understand the construction of racial schemas. After all, racial schemas, like other cultural schemas, reflect information that is not only deployable automatically but is also perceived to be socially shared. People hold inaccurate beliefs about what “most other” Americans believe about a range of social issues (Mize 2024), and yet, these second-order beliefs drive behavior in spite of the fact that they might not be an accurate reflection of other Americans’ views (Correll et al. 2017; Mildenerger and Tingley 2019). Analogously, the racial schemas and perceptions of legitimacy held by respondents may or may not map onto those they perceive to be held by others. Moreover, respondents may be incorrect about their views of other Americans, which our nationally representative sample sheds light on. However, to our knowledge, the relationship between first- and generalized second-order beliefs as they pertain to racial classifications and norms has not been empirically established in the literature.

Prior research illustrates that racial classifications are shaped by a number of fluid dimensions, among them physical appearance, racial self-identification, presumed genealogical ancestry, GAT results, and a history of having been treated by society as a member of the in-group (Saperstein and Penner 2012; Guo et al. 2014; Brubaker 2016*a*; Feliciano 2016; Roth 2016, 2018; Morning 2018; Schachter et al. 2021; Irizarry, Monk, and Cobb 2023; Abascal et al. 2024, 2025). While skin color and other physical features are undoubtedly important and tend to outweigh GAT results in classification (Feliciano 2016; Schachter et al. 2021), they are far from the only traits that matter in shaping classifications. For example, using a conjoint experiment, Schachter et al. (2021) find that GAT information is a strong predictor of classification by White observers but also that respondents do not use strict hypodescent when making these judgments. Likewise, in another conjoint experiment on how people classify others, Abascal et al. (2025) find that individuals take self-identification, parents' racial backgrounds, and skin color into account when making classifications, but the extent to which these attributes shape classification differs depending on whether people are classifying individuals as White, Black, Latino, Asian American, or Middle Eastern/North African (MENA). For example, they find that all racial groups police those self-identifying as White more diligently compared to the ways that individuals police those self-identifying with other racial/ethnic groups.

In this study, we include three randomly assigned treatment conditions that each speak to how people may construct perceptions of authenticity. First, we vary GAT results. GATs provide consumers with approximate and individualized estimates of the global regions where their ancestors may have lived, but consumers generally receive very little information on how to interpret their results (Lee et al. 2009; Christensen et al. 2010; Bliss 2013). Typically, GAT results are delivered in the form of coarse geographic categories (e.g., Sub-Saharan African, Eastern European) that do not neatly map onto socially constructed racial categories (e.g., people of South Asian descent are more genetically similar to people of European descent than to people of East Asian descent; 1000 Genomes Project Consortium 2015). Although the information provided by GATs is conceptually distinct from socially constructed racial categories, the two are often conflated by laypeople (Trejo and Martschenko 2026); for example, although rates of switching are low, some people change their racial/ethnic identities after taking a GAT and judge others on the basis of their test results if such information is available (Nelson 2016; Roth and Ivemark 2018; Roth and Yaylacı 2024). While GAT results are just one of several characteristics that shape how people identify and are classified, GAT information, unlike phenotype or culture, can be abruptly “discovered” by an individual upon receipt of their GAT results. Further, the use of genetic data

can create an aura of scientific objectivity (justified or not), which in turn may be more likely to be socially accepted as evidence of racial group membership (Roth and Ivemark 2018). While prior work has illustrated that GAT information shapes classifications, it remains unclear how exactly people interpret the GAT information they encounter and the extent to which they believe GATs are meaningful to other Americans.

Second, to understand how scarce resource contexts and perceptions of material resources affect classifications and views on legitimacy, we include treatment conditions where the individual is identifying as Black either on a government census or while applying for a competitive college scholarship. The racial boundaries that individuals craft differ across context and shape the degree to which a group is likely to validate or reject another's self-identification. For example, Abascal (2020) showed that White individuals, when faced with the threat of numeric decline, were less likely to classify racially ambiguous individuals as White. Other studies have found that White Americans are more likely to enforce a strict Black-White boundary when faced with threats to the US racial hierarchy (Chen, de Paula Couto, et al. 2018; Ho et al. 2017). Analogously, in contexts where it may be potentially advantageous to identify as Black to access a scarce resource—such as with the program that Ralph Taylor applied for—Black Americans may feel threatened and view the use of GATs by racially ambiguous individuals as strategic (and in turn be more likely to reject the test taker's self-identification and view it as illegitimate). Of course, a government census still carries material stakes and consequences; however, these stakes are at a communal level and do not specify material gains for any specific individual.

Finally, we examine whether crossing a boundary and changing one's self-identification is viewed differently from those with more stable racial identifications (e.g., vignettes where the individual already identified as Black compared to scenarios where they did not). Prior work emphasizes that people are sensitive to potential racial crossovers (Abascal 2020; Wimmer 2013) and that boundaries vary in the extent to which they are permeable by outsiders (Alba 2005). For example, respondents may be less likely to view a changed self-identification as legitimate compared to a more stable one.

Our goal with these manipulations is not solely to establish whether these attributes shape classification (indeed, prior work on this topic has illustrated some patterns to this effect; see Feliciano 2016; Roberts et al. 2021; Abascal et al. 2025; and Schachter et al. 2021), but rather to illustrate how people respond to information about these characteristics. Across all conditions, we gauge both the first-order reactions of respondents themselves as well as respondents' generalized second-order perceptions of how other Black and White Americans would react in similar settings.

METHODS

This study comprises two original survey vignette experiments. The first was fielded in January 2023 using a nationally representative sample of Black Americans (hereafter study 1), and the second was fielded in June 2024 using a sample of both Black and White Americans (hereafter study 2).<sup>6</sup>

Study 1

*Participants.*—Data collection for study 1 was contracted through YouGov. The sample includes 3,100 self-identified US-born Black American adults and was constructed to be nationally representative of this population. Because YouGov collected demographic and background covariates directly during the panel recruitment process, there is no missingness along these measures and all demographic/background covariates were collected pretreatment. Further, all respondents provided complete responses to all survey items. Descriptive statistics of the survey respondent sample for study 1 (weighted to reflect a nationally representative sample) are displayed in table 1.

*Experimental design.*—In each vignette, respondents were asked to respond to the racial identification of a fictitious individual, where we varied three key aspects of this individual's background: (1) the individual's GAT results (high vs. low SSA ancestry), (2) their prior racial self-identification (Black vs. non-Black), and (3) the setting in which they have chosen to identify as Black (census vs. scholarship). Note that the prior racial identification treatment conditions allowed us to gauge respondents' reactions to perceived racial crossover, and the context treatment conditions shed light on respondents' reactions to identification in settings where it might be advantageous to identify as Black (compared to more neutral contexts). Respondents began the study by viewing an image of a fictitious individual (see the online appendix for images) and reading the following prompt:

Meet Daniel. Daniel is an American citizen whose family has been in the U.S. for generations. Daniel is usually unsure of how to identify, but mostly [has/has not] identified as Black/African-American.

Daniel recently received his genetic ancestry test results from a company such as *23andMe* or *Ancestry.com*. Genetic ancestry tests use a person's DNA to make an informed guess regarding where a person's ancestors lived. Daniel's genetic ancestry test results estimate that he has approximately [4%/36%]

<sup>6</sup> We preregistered study 1 on the Open Science Framework, with an addendum that includes the design of study 2 (<https://osf.io/dj9pt/>). Portions of our preregistered analysis (such as the text analysis) will appear in separate articles. We are grateful to the anonymous reviewers for suggesting the additional analyses investigated in study 2. In addition, a replication package for the main text analyses can also be found on OSF using the link above.

## Policing the Boundaries of Blackness

TABLE 1  
SUMMARY STATISTICS OF SURVEY RESPONDENTS (Study 1)

	Mean	SD
Age . . . . .	45.12	16.71
Female . . . . .	.53	
Education . . . . .		
No high school . . . . .	.07	
High school graduate . . . . .	.39	
Some college . . . . .	.23	
Two-year degree . . . . .	.11	
Four-year degree . . . . .	.13	
Postgrad . . . . .	.08	
Household income (\$1000) . . . . .	47.30	58.64
Immigration background:		
Parents and grandparents born in US . . . . .	.88	
Parents born in US . . . . .	.05	
Parents immigrants to US . . . . .	.07	
Political party:		
Democrat . . . . .	.62	
Republican . . . . .	.08	
Independent . . . . .	.21	
Other/not sure . . . . .	.10	
<i>N</i> . . . . .	3,100	

NOTE.—Weighted averages are displayed. Survey weights were provided directly by YouGov to approximate a nationally representative sample of US-born Black American adults. Weights were created using a sampling frame generated from ACS using age, gender, race, and education and then matched back to the respondent sample. Weights correspond to the inverse probability of selection into the sample. We display tables 1 and 2 separately because the survey companies that administered studies 1 and 2 collected slightly different background covariate panels.

Sub-Saharan African ancestry (from countries such as Ghana and Nigeria) and [96%/64%] non-African ancestry.

A few weeks after receiving these genetic ancestry test results, Daniel [filled out a government census and identified as Black/African-American / applied for a college scholarship intended for Black/African-American students (e.g., NAACP)].<sup>7</sup>

Respondents were then asked to make various classifications and evaluations in response to Daniel’s decision to identify as Black, including in two

<sup>7</sup> Note that names varied randomly across 12 conditions (six male and six female treatments). We include name and image fixed effects in the models. For clarity and simplicity, we have chosen one of the names to use in the description of the example vignettes. Additional details on name selection can be seen below in the section on selecting names and images.

text free-response questions (which we analyze in separate works). The full set of survey items can be found in the online appendix.

*Selecting images and names.*—We used a multistep process to select the images for this study. All of the images come from the Chicago Face Database (Ma, Correll, and Wittenbrink 2015; Ma, Kantner, and Wittenbrink 2021). We first used the dataset's norming data, which include survey responses of perceived race and ethnicity for each image, to select a range of racially ambiguous images. Using the norming data on perceived race/ethnicity, we selected a preliminary set of images where the survey data displayed a reasonable level of perceived White-Black ambiguity. For example, based on the norming data, the average probability of classification as Black for our six chosen images was 0.14, while the average probability of classification as White was 0.07 and the average probability of classification as multiracial was 0.34. However, because study 1 focuses specifically on the perceptions of Black respondents, we also pretested these images to ensure that Black Americans perceived these images to be racially ambiguous and that the images themselves were similar in their degree of White-Black ambiguity (see fig. A4 for results illustrating pretest respondents' guesses of the approximate level of SSA ancestry that the people in the images have). To determine the percentages used in the vignette (4% and 36%), we conducted a pretest on Prolific with 200 US-born Black Americans to gauge views on the levels of SSA ancestry (relative to European and other ancestry) that respondents believed the individual in each selected image has. Our experimental values, 4% and 36%, correspond with the 25th and 58th percentile of respondent guesses (we opt to use asymmetric percentiles because of the right-skewed distribution; the average guess was 32% SSA ancestry, and the median guess was 29%).

As with the images, we chose names that would not send a strong White or Black signal to respondents. We selected 12 total names (six for women and six for men) that were randomly assigned to respondents in the experiment. To select the names, we used birth data for the state of New York, which includes counts of baby names for the most popular names by race/ethnicity. We restricted our choices to names with at least 100 counts of Black births and 100 counts of White births and selected names that were approximately equally likely to be given to a Black versus White baby. To do so, we chose names that had Black/White proportions that matched the overall proportions of Black/White births in New York State. This led us to the following names: Samantha (Sam), Mia, Zoe, Isabella, Emily, Ava, Samuel (Sam), Michael, Alexander (Alex), Aaron, Andrew, and Daniel. All results include image and name fixed effects, which ensure that our treatment effects are valid across a number of physical appearances and names (rather than only selecting one image, which might lead our results to be specific to the particularities of the image selected).

Study 2

After fielding study 1, we conducted a second experiment on Prolific with several key changes to the design. To provide a comparison sample of non-Black individuals, we surveyed both self-identified Black ( $n = 1,741$ ) and White ( $n = 1,748$ ) Americans. We also updated three features of the experimental design. First, the vignette individual’s previous identification was randomly assigned to be either White or Black (rather than “has/has not identified as Black,” as in study 1). Second, the non-SSA portion of the vignette individual’s GAT result was listed as European (compared to “non-African” in study 1). Finally, in addition to 4% and 36% SSA, we also include 0% SSA as an additional treatment condition to better understand the full effect of the GAT result in shaping classification and evaluation. Summary statistics of the study 2 sample can be found in table 2.

TABLE 2  
SUMMARY STATISTICS OF SURVEY RESPONDENTS (Study 2)

	Mean	SD
Self-identified race:		
White . . . . .	.50	
Black . . . . .	.50	
Age . . . . .	40.16	12.89
Sex:		
Female . . . . .	.65	
Male . . . . .	.35	
Prefer not to say . . . . .	.00	
Respondent education level:		
Doctorate degree (PhD/other) . . . . .	.03	
Don’t know/not applicable . . . . .	.00	
Graduate degree (MA/MSc/MPhil/other) . . . . .	.15	
High school diploma/A-levels . . . . .	.24	
No formal qualifications . . . . .	.01	
Secondary education (e.g., GED/GCSE) . . . . .	.02	
Technical/community college . . . . .	.19	
Undergraduate degree (BA/BSc/other) . . . . .	.37	
Household income (\$1,000) . . . . .	67.38	43.72
Political party:		
Democrat . . . . .	.48	
Independent . . . . .	.27	
None . . . . .	.06	
Other . . . . .	.03	
Republican . . . . .	.15	
<i>N</i> . . . . .	3,489	

NOTE.—We display tables 1 and 2 separately because the survey companies that administered studies 1 and 2 collected slightly different background covariate panels. GCSE = General Certificate of Secondary Education.

### Outcome Variables

We solicited three primary quantitative outcomes across study 1 and study 2. First, we measured how respondents reacted to the individual in the assigned vignette condition identifying as Black/African American in the given setting (measured using a seven-point Likert scale from “extremely positive” to “extremely negative”). For study 2, we additionally asked respondents to provide their beliefs about how most US-born Black and White individuals would react to the same vignette using the same seven-point approval Likert scale. Next, we asked respondents to provide a classification of the single best race/ethnicity<sup>8</sup> (drawn from census categories) that they believed described the vignette individual and the single best race/ethnicity that they believed most US-born Black and White Americans would use to describe the vignette individual.<sup>9</sup> In study 2, we also randomly assigned half of respondents to respond both to a “mark all that apply” question as well as a forced choice single best racial classification.

*Mechanisms.*—We included several measures to better understand the factors that mediate responses to the individual in the assigned vignette condition. First, we created an index using principal component analysis that measures respondents’ perceptions of the fairness, honesty, and legitimacy of this decision (hereafter, we describe this index as the *integrity index*, which measures perceptions of the integrity of the vignette individual’s decision). Table A4 in the appendix includes principal component loadings for the integrity index. In study 2, we also measured generalized second-order beliefs about most other Black and White Americans’ views of the fairness, honesty, and legitimacy of the vignette individual’s decisions. Further, we measured respondents’ first-order perceptions of the level of racial discrimination the vignette individual has faced in their life and how much shared cultural background and experiences respondents believe that the vignette individual shares with the US Black community. In study 2, we also measure generalized second-order beliefs about experiences of discrimination and shared cultural background and experiences.

<sup>8</sup> Given the increased racialization of the ethnic category Hispanic (and because the focus of our study is on White-Black ambiguity), we include Hispanic alongside other standard racial categories rather than as a separate ethnicity (Golash-Boza and Darity 2008; Frank, Akresh, and Lu 2010; Roth 2012; Morning and Saperstein 2018). However, because YouGov collected background data from respondents using Hispanic as an ethnicity (separate from race), we preserve Hispanic as a standalone respondent covariate.

<sup>9</sup> In study 1, we ask all respondents (all of whom self-identify as Black) about their perceptions of other Black Americans’ beliefs. In study 2, we ask both Black and White Americans about their perceptions of both Black and White Americans’ beliefs, although we focus primarily on in-group comparisons in this study (i.e., how Black Americans perceive other Black Americans and how White Americans perceive other White Americans).

Furthermore, in the appendix, we investigate whether there is moderation based on whether or not a respondent has ever taken a GAT and their perceptions of both their own percentage SSA ancestry and the percentage SSA ancestry of the average US-born Black American (table A7). While race and ancestry are distinct concepts, these moderation results provide insight into respondents' beliefs about race and the information provided by a GAT. Such beliefs are an important dimension to account for given that, on average, GAT results received by self-identified Black Americans categorize approximately 73% of their genomes to SSA regions (Bryc et al. 2015). Because Americans who self-identify as White have, on average, GAT results that suggest that 98% of their genomes share similarity with European populations (Bryc et al. 2015), there is a possibility that respondents overestimate the average expected percentage of SSA ancestry for other Black Americans (i.e., by assuming that their GATs suggest nearly 100% SSA ancestry, analogous to how average White Americans have nearly 100% European ancestry), which might then shape how they engage with their assigned vignette condition. Alternatively, given historical patterns of classification using hypodescent, respondents may have a more accurate perception of (or even underestimate) the average percentage of SSA ancestry expected among Black Americans.

*Analytic strategy.*—We begin our study with a series of linear regression models to estimate the causal effect of the various vignette treatment conditions on respondents' reported reactions to the vignette individual and classifications of them. We first establish the main effects of the GAT result, prior identification, and setting using versions of the following equation (separately for each of the two studies):

$$y_{ijk} = \beta_0 + \beta_1 \text{Ancestry}_{ijk} + \beta_2 \text{Context}_{ijk} + \beta_3 \text{Prior Identification}_{ijk} + \mathbf{X}_{ijk} \Phi + \pi_j + \gamma_k + \varepsilon_{ijk}, \quad [1]$$

where  $y_{ijk}$  is the outcome of interest (e.g., Likert-measured approval, respondent classification, and perception of how other Americans would classify).  $\text{Ancestry}_{ijk}$  is a treatment indicator for respondent  $i$  viewing a vignette with image  $j$  and name  $k$  for the assigned ancestry condition (either 4% or 36% for study 1 and either 0%, 4%, or 36% for study 2, with 4% always serving as the reference condition in figures and tables).  $\text{Context}_{ijk}$  is a treatment indicator for the census versus scholarship conditions, and  $\text{Prior Identification}_{ijk}$  is a treatment indicator for the Black versus non-Black/White prior identification conditions.  $\mathbf{X}_{ijk}$  is a vector of individual-level covariates, including demographic characteristics collected pretreatment from the YouGov panel (age, gender, income, ethnicity [Hispanic vs. non-Hispanic], education, political leanings, parent/grandparent immigration history, and state of residence). Finally,  $\pi_j$  is a fixed effect for vignette image and  $\gamma_k$  is a fixed effect for vignette name.

The main effects of the three treatments of interest are important because they allow us to then test the mechanisms underpinning these results. To that end, we conducted mediation analyses for the three mediators of interest (perceptions of integrity, discrimination, and shared heritage and culture) on the three main outcomes (Karlson, Holm, and Breen 2012; VanderWeele 2016). In particular, given the outsized and meaningful treatment effects of ancestry that we observe, we concentrate our examination of the mediation results on understanding the effect of GAT information in relation to perceptions of integrity, discrimination, and shared heritage and culture with the Black community.

## RESULTS

### Racial Differences in the Effects of Ancestry Information, Context, and Prior Identification

Because many of our key results—such as our mediation analyses—build on the main effects of our treatments, we begin with a brief examination of the main effects of ancestry information, context, and prior identification on first- and generalized second-order beliefs among both Black and White respondents. Figure 1 displays coefficients from separate regressions for the treatment effects of ancestry information, context, and prior identification. On the left, we display (1) respondent likelihood of classifying the vignette individual as Black (first-order classification) and (2) respondent perception of the likelihood that other racial in-group members would classify the vignette individual as Black (generalized second-order classification). On the right, we include the analogous information for respondent approval/disapproval (first-order approval in the top right panel and generalized second-order approval in the middle right panel). Coefficients are presented separately for (1) Black respondents in study 1; (2) Black respondents in study 2; and (3) White respondents in study 2. The corresponding regression tables can be found in the appendix. To facilitate comparable treatment effects across studies, all ancestry information effects are relative to 4% SSA.

In brief, across both studies, we observe large treatment effects of ancestry information (as illustrated by the hypothetical GAT result) on nearly all first- and second-order classification and approval for both Black and White respondents. In general, respondents reading vignettes that featured an individual with higher SSA ancestry were more likely to classify the vignette individual as Black, more likely to approve of their self-identification, and more likely to believe that other in-group Americans would classify the individual as Black and approve of their self-identification. We also observe statistically significant causal effects of context on most first-order classification and approval outcomes, although the magnitudes of these effects are comparatively smaller than the effects of ancestry information. Here, respondents

## Policing the Boundaries of Blackness

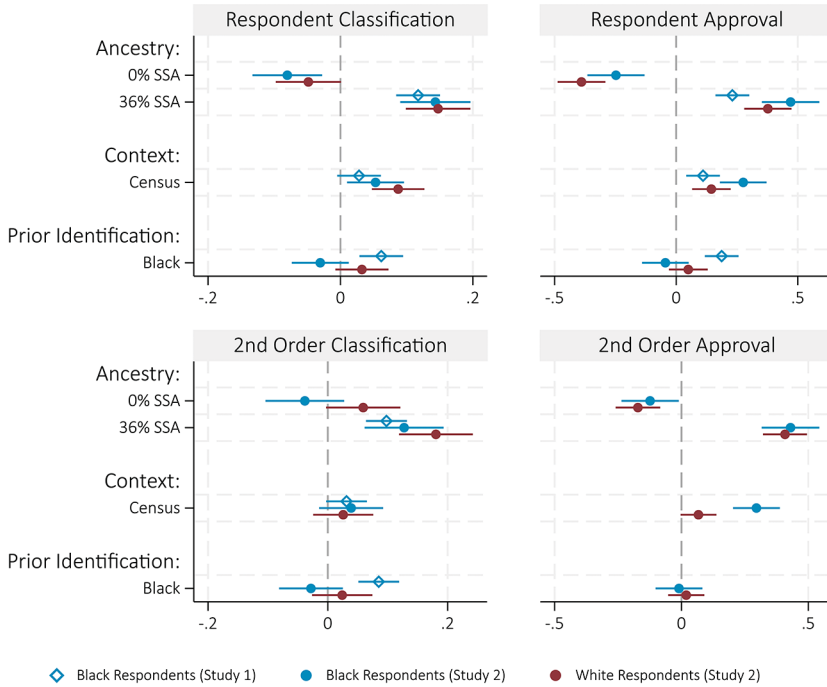


FIG. 1.—Treatment effects of ancestry information, context, and prior identification on first- and second-order outcomes (study 1 and study 2). The reference categories are as follows: 4% SSA for the ancestry treatments, scholarship for the context treatments, and either non-Black (study 1) or White (study 2) for the prior identification treatments.

assigned to the census treatment condition tended to be more likely to classify the vignette individual as Black and more likely to approve of their self-identification (relative to those in the scholarship condition). Results for prior identification were more mixed, with prior identification significantly affecting first- and second-order outcomes for study 1 Black respondents but not for study 2 Black or White respondents. This may be due in part to design differences across studies: While study 1 introduced an individual who either had or had not identified as Black (with no alternative presented), study 2 instead presented an individual who had previously identified as either White or as Black. Likewise, rather than listing non-SSA ancestry as non-African, study 2 instead listed this ancestry as specifically European.

In sum, compared to ancestry information, both context and prior identification play a more muted role in affecting outcomes. This suggests that GAT information, when provided, is more influential than context or prior self-identifications in affecting respondents' (1) classifications, (2) approval levels, and (3) perceptions of whether others in their racial group would classify

the vignette individual as Black and approve of the vignette individual. Further, we find that treatment effects for Black and White respondents generally align, suggesting a lack of meaningful racial differences in the policing of the boundary around Blackness. These results set the stage for our investigations of the mechanisms that explain these patterns.

Perceptions of Integrity, Not Discrimination or Shared Culture,  
Primarily Mediate Effects

Having established the main effects of our treatment conditions, we turn to a discussion of the extent to which observed effects are mediated by (1) the perceived fairness, honesty, and legitimacy of this decision (combined into a single index that we refer to as the integrity index); (2) perceptions of discrimination that the vignette individual has faced in his or her lifetime; and (3) perceptions of shared cultural heritage, background, and experiences with the broader US Black community. Together these results illustrate the ways that respondents do (or do not) make meaning out of ancestry information, context, and prior identification, shedding light on the mechanisms that explain the patterns we observe in figure 1. We focus our discussion specifically on the extent to which these factors mediate the effect of ancestry information given the outsized role of ancestry in shaping main effects (see fig. 1), although table 3 also reports mediation results for the treatment effects of context and prior identification.

Results for study 1 can be seen in table 3, while the analogous information from study 2 can be found in the appendix (table A5).<sup>10</sup> Panels A, B, and C illustrate results from separate regressions of effects on respondents' first-order classifications of the vignette individual (panel A), first-order approval/disapproval of the vignette individual (panel B), and generalized second-order perceptions of how others would classify the vignette individual (panel C). We report results from a pooled model across setting and prior identification that includes respondent covariates.

We begin with panels A and C of table 3, which illustrate first- and second-order classification outcomes. The mediators explain 62% and 70%, respectively, of the total effect of ancestry information in shaping respondents' own classifications of the vignette individual and their perceptions of how other Black Americans would classify the vignette individual.<sup>11</sup> The bulk of this pattern is due to differences between treatment groups in perceived integrity

<sup>10</sup> We focus these results on study 1 for simplicity, as study 2 included a larger number of treatment assignments.

<sup>11</sup> Like all mediation analyses where the mediator variables are not randomly assigned, there may also be unmeasured confounding that impacts both (1) the extent to which respondents are attuned to issues measured by the integrity index and (2) the outcome measure.

TABLE 3  
MEDIATION OF TREATMENT EFFECTS (Study 1).

	ANCESTRY		CONTEXT		PRIOR IDENTIFICATION	
	Mediator Effect	Fraction of Total Effect	Mediator Effect	Fraction of Total Effect	Mediator Effect	Fraction of Total Effect
	SE	SE	SE	SE	SE	SE
A. First-Order Classification						
Integrity index (standardized)	.05	.43	.04	.73	.01	.73
Perceived discrimination	.00	-.01	.00	-.02	.00	-.02
Perceived shared culture	.02	.19	.02	.43	.00	.43
Total	.07	.62	.06	1.20	.01	1.20
B. First-Order Approval						
Integrity index (standardized)	.14	.64	.09	.84	.12	.63
Perceived discrimination	.00	.01	.00	.01	.00	.02
Perceived shared culture	.03	.15	.01	.12	.04	.20
Total	.18	.81	.10	.96	.16	.85
C. Second-Order Classification						
Integrity index (standardized)	.03	.34	.03	.34	.01	.34
Perceived discrimination	.00	.03	.00	.04	.00	.04
Perceived shared culture	.03	.32	.03	.43	.01	.43
Total	.07	.70	.06	.82	.01	.82

NOTE.—Panels A, B, and C display mediation results from separate decompositions. Because the average treatment effect of context on classification was not statistically significant, we omit mediation results for those regressions.  $N = 3,100$ .

(honesty, fairness, and legitimacy) of the vignette individual's decision (explaining 43% and 34%, respectively, of the two treatment effects). Likewise, perceptions of shared heritage, background, and experiences explain 19% and 32% of the treatment effect of 36% SSA ancestry, respectively, while perceptions of discrimination do not explain a meaningful portion of the effect. We also observe that culture mediates a higher fraction of respondents' perceptions of how others will classify the vignette individual compared to respondents' own classifications. We find that the treatment effects of SSA ancestry on second-order classifications were mediated approximately equally by perceptions of integrity (34%) and perceptions of shared culture (32%).

In panel B, which illustrates first-order approval outcomes, 81% of the total treatment effect of 36% SSA ancestry is mediated by the three included measures (relative to the 4% SSA condition). Approximately 64% of this effect is due to the effect of high SSA ancestry on perceptions of the fairness, honesty, and legitimacy of the decision. In effect, more than half of the total treatment effect of 36% SSA ancestry (0.14 SD of the total 0.22 SD effect) is explained by the fact that respondents who read a vignette about an individual with 36% SSA ancestry identifying as Black were more likely to view the vignette individual as acting honestly, fairly, and legitimately compared to those who viewed the same image but learned that this individual had only 4% SSA ancestry on their GAT result. In addition, about 15% of the total effect of 36% SSA ancestry is mediated through perceptions of shared heritage, background, and experiences with the Black community (0.03 SD). Finally, perceptions of how much discrimination the vignette individual has faced in their life did not meaningfully explain the treatment effect of the GAT result (0.002 SD; 1% of total effect).

The emphasis on integrity rather than other lived experiences suggests both that respondents believe there is an underlying fair, honest, and legitimate way to identify that is in part based on one's GAT results and that lived experiences of shared culture or discrimination are perhaps less central to judgments compared to perceptions of integrity. However, while respondents themselves base the bulk of their responses on perceptions of integrity, they appear to believe that other Americans care approximately evenly about integrity and shared culture. Neither first- nor second-order outcomes are meaningfully mediated by perceptions of experienced racial discrimination on the part of the vignette individual.

Along similar lines, although the treatment effects of context and prior identification are much smaller on average than the treatment effects of ancestry information, we similarly find that the bulk of effects are mediated by perceptions of integrity rather than perceptions of discrimination or shared culture. Further, examining these same patterns among study 2 respondents reveals a similar result (table A5): The bulk of the relationship between higher GAT-measured ancestry and all three outcomes is mediated by respondents'

perceptions of the integrity of the vignette individual. Further, as with our main treatment effects, we do not observe meaningful differences by race. In sum, the main mechanism explaining the treatment effects is perception of integrity, followed by perception of shared culture. Perception of experiences of racial discrimination do little to explain the patterns that we observe.

### Comparing Own Perceptions and Perceived Perceptions of Other Black and White Americans

We next turn to understanding how respondents situate these beliefs in the broader social order. In particular, we examine respondents' perceptions of how other Black or White Americans would respond in similar scenarios of classification and evaluation. We begin by examining differences in first- and second-order classification outcomes in further detail in figure 2 (pooled across treatment conditions for simplicity). Importantly, as previously noted, study 1 and study 2 include meaningful design differences: while study 1 introduced an individual who either had or had not identified as Black, study 2 instead presented an individual who had previously identified as either White or as

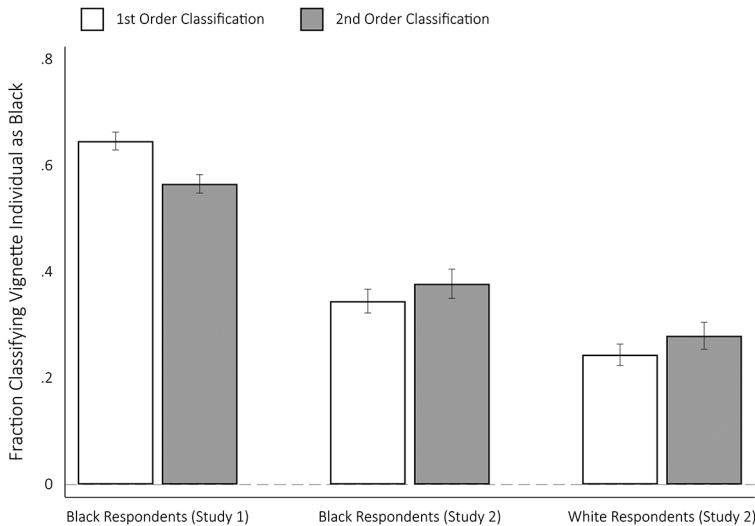


FIG. 2.—First- and generalized second-order baseline classification outcomes, by race (study 1 and study 2). Classification outcomes are pooled across treatment conditions. Study 1 includes vignettes with 4% and 36% SSA and Black and non-Black prior identification conditions. Study 2 includes vignettes with 0%, 4%, and 36% SSA and Black and White prior identification conditions. Both studies include census and scholarship context conditions.

Black. Likewise, while study 1 included non-African ancestry in the text, study 2 instead listed this ancestry as specifically European.

Here, we observe several patterns of note. First, among Black respondents in study 1 (across all treatment conditions), individuals tend to view themselves as more likely to classify the vignette individual as Black than most other Black Americans. On the other hand, when we remove the stated alternative and tell both Black and White respondents that the respondent previously self-identified as White and has a GAT result that reveals substantial European ancestry, we observe a different pattern. Now, among those viewing vignettes where the respondent's GAT reveals no SSA ancestry, respondents report similar first- and second-order classifications and may even slightly overestimate. The discrepancies between study 1 and study 2 suggest that giving respondents a plausible alternative (e.g., a vignette with someone who previously identified as White, with substantial European ancestry) rather than a vague alternative (e.g., someone who has not identified as Black, with substantial non-African ancestry) shapes how people imagine our vignette individual. For example, respondents may have imagined the ancestry of non-White populations, such as Afro-Latino or Afro-Caribbean communities, who may be descended from a mix of African, Indigenous American, European, and South Asian populations (Moreno-Estrada et al. 2013; Bryc et al. 2015).

Importantly, for study 1, we surveyed a nationally representative sample of Black Americans, meaning that, if respondents were correct in their assumptions, we would not observe any differences between averaged generalized second-order beliefs and averaged first-order beliefs. And yet, we find that people are generally incorrect in their perceptions of how other Black Americans would classify the vignette individual: 65% of respondents believe that other Black Americans would classify the vignette individual as Black, while only 57% did in reality.

Do respondents have a more accurate perception of their own racial group compared to out-groups? Figure 3 examines perceptions of in- and out-groups among study 2 respondents. The left side of figure 3 includes the perceptions of both Black and White respondents on how the average Black American would respond to the vignette, and the right side of the figure shows analogous information for the perceptions of White Americans. The dotted lines on both sides of the figures illustrate actual responses by Black and White respondents, respectively. As can be seen in the figure, neither Black nor White respondents tend to be exactly accurate in their beliefs, but each are more accurate for their own racial group than for the out-groups. For example, on average, Black Americans assumed that 42% of White respondents would classify the vignette individual as Black; in reality, only about 24% of them did. On the other hand, White respondents underestimated the responses of Black Americans, believing that 24% of them would classify the vignette individual as Black

## Policing the Boundaries of Blackness

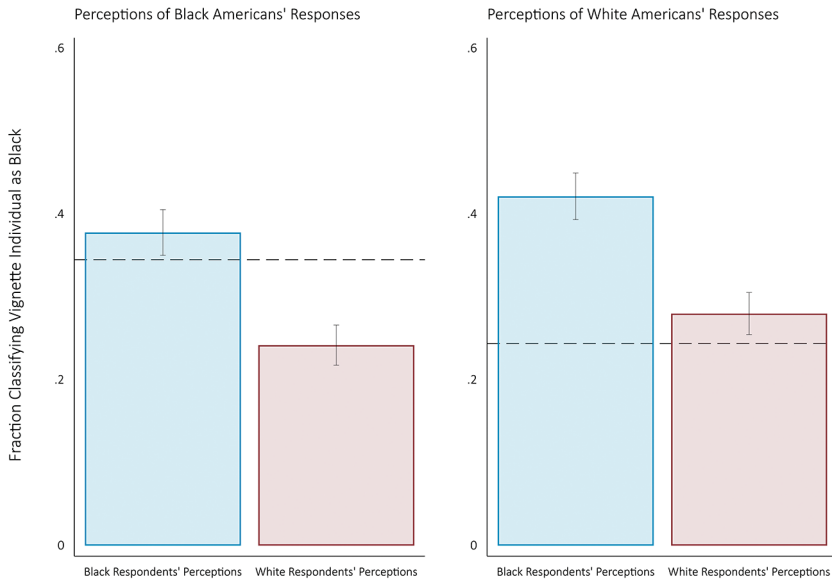


FIG. 3.—Comparing first-order perceptions to in- and out-group generalized second-order perceptions for both Black and White Respondents (study 2). The gray dashed line indicates the actual classification rates for respondents of each race/ethnicity. This figure includes both Black and White respondents from study 2.

when approximately 34% did. Both Black and White respondents are comparatively more accurate when it comes to perceptions of their own racial groups' responses, although both slightly overestimate.

However, the alignments (or lack thereof) of first- and second-order classification responses are not the only outcomes that may shape people's racial schemas. Figure 4 illustrates differences between first and generalized second-order perceptions of the three mediating variables mentioned in previous sections: (1) approval/disapproval of the vignette individual's decision; (2) the integrity of the vignette individual's decision; (3) the vignette individual's experiences of discrimination; and (4) how much culture and heritage the vignette individual shares with the Black community. All responses are from study 2. For simplicity, we constrain second-order beliefs to focus on in-groups (meaning that we display Black respondents' perceptions of other Black Americans' beliefs and White respondents' perceptions of other White Americans' beliefs).

Across all four outcomes, we find that both Black and White respondents' first-order perceptions diverge from second-order perceptions in similar ways. In all cases, respondents believe that they have higher approval levels, perceive more integrity, perceive more discrimination, and perceive more shared

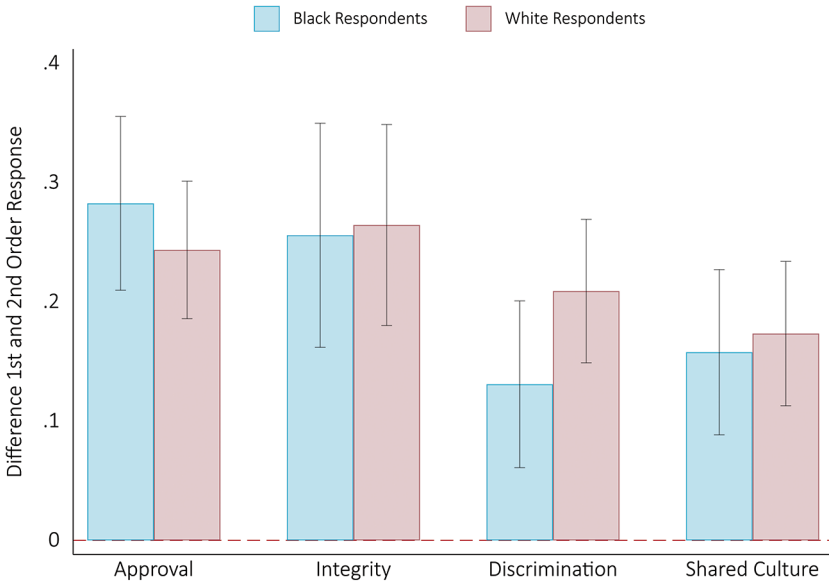


FIG. 4.—Difference own response and perceived average in-group response for integrity index, perceptions of discrimination, and perceptions of shared culture among Black and White respondents (study 2). All outcomes are standardized to the distribution of first-order perceptions for that measure.

culture than other same-race Americans. This suggests meaningful differences between how respondents themselves feel about the vignette individual and the way that they expect other in-group Americans to respond to the vignette individual.

#### Understanding Divergent First- and Second-Order Beliefs

How can we understand the consequences of divergent views from the broader Black or White communities, respectively? Table 4 illustrates regression-derived predicted values of respondents' first-order Likert approval and integrity index levels across four categories of respondents: (1) respondents who did not classify the vignette individual as Black and believed that other Black or White Americans would also not classify the vignette individual as Black; (2) respondents who did not classify the vignette individual as Black but believed that other in-group Americans would classify them as Black; (3) respondents who did classify the vignette individual as Black but did not believe that other in-group Americans would agree; and (4) respondents who classified the vignette individual as Black and believed that other in-group Americans would do the same. Note that these results are descriptive, as we did not randomly assign concordance/discordance between first- and generalized

Policing the Boundaries of Blackness

TABLE 4  
 APPROVAL AND INTEGRITY PERCEPTIONS, BY AGREEMENT/DISAGREEMENT BETWEEN  
 FIRST-ORDER CLASSIFICATION AND GENERALIZED SECOND-ORDER  
 CLASSIFICATION (Study 1 and Study 2)

	First-Order Approval	First-Order Integrity Index
First-order classification = not Black and second-order classification = not Black . . . . .	-.41*** (.03)	-.54*** (.04)
First-order classification = not Black and second-order classification = Black . . . . .	.11* (.04)	.33*** (.06)
First-order classification = Black and second-order classification = not Black . . . . .	.56*** (.04)	.83*** (.05)
First-order classification = Black and second-order classification = Black . . . . .	.80*** (.03)	1.22*** (.03)

NOTE.—Standard errors are in parentheses. Each column reports results from separate regressions. Models additionally control for treatment assignment (ancestry, context, and prior identification), study (e.g., study 1 vs. study 2), and respondent race/ethnicity. Displayed coefficients are the predicted values that are held at 4% SSA, census, and Black prior identification treatment assignment. Differences between rows are all statistically significant.  $N = 5,498$ .

- \*  $P < .05$ .
- \*\*  $P < .01$ .
- \*\*\*  $P < .001$ .

second-order beliefs and therefore cannot speak to the causal effects of these differences. These responses illustrate the approval levels and perceptions of integrity for each of the four situations, controlling for all else.

As can be seen in table 4, respondents whose first- and generalized second-order perceptions align in classifying the vignette individual as Black (fourth row) express the highest levels of Likert-measured approval and integrity ratings. The next highest levels of Likert-measured approval and integrity ratings are among those who are discordant with respect to their first- and second-order beliefs; among this discordant group, those who would classify the vignette individual as Black but do not think other in-group Americans would do the same (third row) express higher levels of approval and integrity ratings than those who themselves would not classify the individual as Black but believe that other in-group Americans would do so (second row). Finally, those whose first- and second-order beliefs aligned in classifying the vignette individual as a race other than Black expressed the lowest levels of both approval and integrity ratings (first row). In summary, both the views of others and one’s own beliefs are associated with approval and perceptions of integrity; however, first-order beliefs (among individuals with the same second-order beliefs) are associated with a larger difference in approval and perceptions of integrity

than are second-order beliefs (among individuals with the same first-order beliefs).

## DISCUSSION

This study attends to questions about how Americans decide when a particular racial identification is authentic and legitimate. Such a task requires examining not only how a particular person responds to various scenarios where another's racial identification might be validated or rebuffed, but also how that person perceives the broader social rules that govern racial classification and legitimacy for other Americans. Main effects from this work confirm the role of GATs in shaping racial schemas: GATs (and the purported "ancestry" information contained within them) are an important social force in shaping classifications of others. Across context and prior racial identifications, we consistently observe that vignette individuals with high SSA ancestry are more likely to be classified as Black by respondents and to have respondents believe that other in-group Americans would also classify them as Black. Likewise, respondents report higher first-order and perceived second-order approval ratings for vignette individuals with higher SSA ancestry. These ancestry effects outweigh the effects of either the vignette individual's prior self-identification or the context in which they are identifying as Black, demonstrating the central nature of GAT and ancestry information in shaping conceptions of race.

More importantly, our empirical results reveal meaningful differences between the average responses by participants and their perception of the typical response that would be made by members of the broader Black or White American community, respectively. In other words, the characteristics that shape perceptions of integrity and corresponding social norms for respondents do not necessarily align with their perceptions of how other Americans make judgments. For example, study 1 respondents tended to view themselves as more willing to classify the vignette individual as Black than other US-born Black Americans; 13% of respondents classified the individual as Black while simultaneously believing that the average Black American would *not* classify them as Black, whereas only 5% of respondents did not classify the individual as Black while believing that the average Black American *would* classify them as Black. Further, we find that both first- and generalized second-order beliefs matter in their associations with approval and perceptions of integrity. Our findings suggest that the racial identifications that are viewed as the most legitimate are those where there is agreement between a respondent's first-order beliefs and their perceptions of how other Americans would respond in similar settings. However, when the two are in conflict, our findings suggest that respondents may privilege their own beliefs over their perceptions of social norms. The vignette individuals whose self-identifications are viewed as the

*least* legitimate are those where the self-identification does not align with either the respondent's first-order classification or their generalized second-order classification.

Moreover, our mediation results show that the bulk of the treatment effects are driven by respondents' perceptions of the integrity of the vignette individual's decision, rather than other competing factors such as perceptions of experienced racial discrimination or perceptions of shared cultural background with the Black community on the part of the vignette individual. In particular, the emphasis by respondents on the perceived honesty, fairness, and legitimacy of these decisions suggests that respondents believe that there exists an underlying honest, fair, or legitimate way to describe one's racial identity that is based, in part, on one's GAT information. Given that we find that GAT results bolster respondents' perceptions of the integrity of identifying as Black, it follows that respondents likely see GATs as a valid and relevant source of information for decision-making about racial identity when the GAT reveals small amounts of SSA ancestry. On the other hand, in cases where the vignette individual has 0% SSA ancestry, 64% of our respondents indicated that the vignette individual's racial identification was either extremely or somewhat illegitimate. These findings align with previous studies that show the meaningful roles of GATs in shaping racial classification outcomes (Schachter et al. 2021) but extend them to explain some of the underlying mechanisms linking GATs—and the purported ancestry information contained within them—to conceptions of racial legitimacy. Finally, like Abascal et al. (2025), we do not observe strong evidence that such norms differ by respondent race. Rather, we observe consistent alignment between Black and White respondents in the treatment effects across most key outcomes, further underlining the widely held nature of these types of racial schemas. Still, when we consider levels rather than effects, we find that Black Americans—at baseline—are more likely to classify racially ambiguous vignettes as Black than are White Americans. Taking all of this together, our study adds to a growing body of prior research that examines not only the effects of attributes on classification outcomes but also the ways that people make meaning out of information such as GAT results, prior identification, or context (Feliciano 2016; Roth and Ivemark 2018; Roberts et al. 2021; Schachter et al. 2021; Roth and Yaylacı 2024; Abascal et al. 2024, 2025).

Our mediation analyses also shed light on the discordance between the viewpoints held by respondents and their perceptions of how other Americans might respond in similar settings. Treatment effects of GAT results on respondent classification in study 1 were mediated by perceptions of integrity (43%) at more than twice the rate that they were mediated by perceptions of shared culture (19%). However, treatment effects of SSA ancestry on a respondent's perception of Black America's classification were mediated *equally* by perceptions of integrity (34%) and shared culture (32%). So, while Black

Americans themselves appear to care mostly about the integrity of an individual's identification decision when making their racial classifications, they view other Black Americans writ large as caring about both integrity and shared culture to a very similar degree. Finally, we also document meaningful differences between respondents' views and their perceptions of how most other in-group Americans would respond to questions on integrity, discrimination, and shared cultural heritage. In fact, respondents believed that they were more approving and perceived more integrity than other in-group Americans; likewise, respondents rated their own perceptions of discrimination and shared culture as higher than other in-group Americans. Thus, we cannot assume concordance between how people themselves respond and their perceptions of social norms (Mize 2024).

That the preferences and behavior of an in-group can meaningfully differ from the *perceived* preferences and behavior of that same group has important implications for theories regarding racial schemas and boundaries. This discordance suggests that boundaries between racial lines can be maintained by inaccurate perceptions of the hypothetical reactions of the broader community, in addition to social interactions where individuals themselves participate in validating or rejecting the identification of others. For example, certain individuals may choose not to adopt or disclose a racial identity because they anticipate negative responses among members of the in-group even when, in actuality, such individuals might by and large approve. In addition, racial boundaries may fail to expand, even when a specific change garners widespread support among an in-group, because of a shared misperception that many fellow group members would disapprove of or reject such an expansion. In an age increasingly marked by social media—a key method through which people form their perceptions of the wider social world—it may become increasingly important to study messaging and racial frames given that they may create inaccurate views of the beliefs of others.

Our findings, which build upon prior work on generalized second-order beliefs and the legitimacy of (perceived) social rules (Johnson et al. 2006; Ridgeway and Correll 2006; Correll et al. 2017; Mildenberger and Tingley 2019; Mize 2024), add nuance and specificity to understandings of the racial schemas held by contemporary Americans. This is particularly important given that social rules influence how people behave, even if they themselves do not subscribe to a particular worldview. Without the ability to compare both first- and second-order beliefs, it is difficult to understand the bounds of social norms and practices. As a result, given wide pluralistic ignorance toward the norms shared by others, research that does not engage with perceptions at multiple levels may ultimately misrepresent the complexity of individuals' racial beliefs. In particular, our results suggest that future research should explore the processes through which these second-order beliefs are formed given that they do not neatly align with first-order views. Finally, we

also find that generalized second-order beliefs diverge from both in- and out-groups, suggesting that people have poor understandings of the racial schemas held by other Americans on a broad scale, not only among members of their own racial group. However, in general, second-order beliefs are more accurate for in-groups compared to out-groups.

While this study answers many questions, it also suggests new avenues of research on how people construct racial schemas and the implications of broad patterns of misperceptions about the beliefs of other Americans. For example, when are people more likely to privilege their own beliefs (versus their perceived beliefs about what is societally acceptable) in reacting to situations? Would there be more or less discordance between an individual's beliefs and their perception of the broader social norm when evaluating decisions to identify with other racial/ethnic groups? Future work might continue to test these questions and disentangle differences between first- and generalized second-order racial beliefs.

Our results also have important practical implications when considering policies that hinge on notions of who "counts" as Black, such as in affirmative action contexts or for reparations. Although the Supreme Court overturned the use of race-based affirmative action in higher education admissions contexts via the recent *Students for Fair Admissions* case, questions of group membership remain salient for the consideration of race in other contexts. Individuals have already begun using the results of GATs to claim racial minority status (Karl 2020), and GAT results have been submitted as evidence in legal proceedings for reparations for descendants of slavery (Nelson 2016). These downstream applications of GAT results are unlikely to recede. About one in five Americans—some 60 million individuals—have taken a GAT (Orth 2022). Our results suggest that the use of GATs by individuals to claim racial group membership may find acceptance among members of both in- and out-groups, even as they assume that others might not accept a given identity. From this, it is conceivable that GATs may become a socially accepted mechanism to claim racial membership, although more research is needed to fully understand these ramifications across a wider range of physical appearances and for other racial/ethnic groups. In any case, GATs appear to be central to beliefs about racial legitimacy among both Black and White Americans. Further, we find that in most cases context and prior identification matter only somewhat for classification, suggesting that people are not as sensitive to material stakes or racial switching as previously thought.

There are several important limitations to this work that merit additional discussion and scrutiny. Although large-scale survey experiments provide an opportunity to statistically examine responses to different vignette treatments, there are certainly differences between what people report on a survey and how they behave in real-world contexts (Jerolmack and Khan 2014). Much of the information used in our study would not be on hand when classifying a

passerby; for example, although most test takers share their GAT results with their families, friends, and wider social networks, GAT information is not often available to a casual observer (Foeman, Lawton, and Rieger 2015; Rubanovich et al. 2021). As a result, these results are but a first step in understanding the complicated role that GATs and other attributes play in shaping judgments about legitimacy. However, by using hypothetical GATs as a tool through which to observe the construction of legitimacy and the extent to which racial schemas are shared, we are able to shed light on new patterns of sociological interest, including perceptions of integrity and of broader social norms.

Further, we intentionally limited this study to a small range of images that were similar in their White-Black racial ambiguity. Importantly, while this approach allowed us to estimate how people interpret and respond to information on GAT results, context, and prior identification over a range of similar appearances (all else equal), our results are not generalizable to the wider population of individuals who may claim a Black racial identity or may be racialized as Black by others. Nonetheless, studying the individuals on the margins of these identities can help us to understand the broader social process. Finally, we also acknowledge that our results speak to the boundaries around Blackness specifically but are not generalizable to other racial boundaries, which have not historically been delineated using “one-drop” rules (Davis 2001). This also provides a fruitful opportunity for future research; for example, given that racial/ethnic identification as Hispanic or Latino has historically been defined by more ambiguous characteristics (Mora 2014; Huang 2023), it may be advantageous to conduct similar studies of differences between first- and generalized second-order perceptions as they pertain to Indigenous American genetic similarity, which Hispanic or Latino communities tend to share.

Importantly, although respondents lean heavily on the ancestry information provided by GATs as a source of legitimacy, this does not suggest that one’s genome is, in fact, a measure of what race one should or can identify as. Indeed, given the social nature of race, there is no such thing as a “true” or “correct” racial self-identification (Morning 2015). Although GATs include the label of “genetic ancestry” in their name, some consider the term “ancestry” to be a misnomer for the information they provide given that GATs describe a person’s genetic similarity to present-day (not ancestral) reference populations (Mathieson and Scally 2020; Coop 2022; National Academies of Sciences, Engineering, and Medicine 2023). While GATs may carry an aura of scientific authority and objectivity in the minds of consumers, the construction of the genetic similarity measures used in GATs entails a series of researcher decisions that do not have objectively correct answers (Feldman and Lewontin 2008; Royal et al. 2010; Roth and Ivemark 2018; Zhang and Trejo 2025). While we use GATs in this study as a method of investigating racial schemas, it is important to note that the social use of these tests by laypeople does not always align with the actual information provided by them.

In closing, this study builds on prior empirical and theoretical work on how people assess the legitimacy of others' racial self-identifications. Race is a social process that we all collectively take part in; without clear study of the cues and traits that people use to construct perceptions of legitimacy, as well as their perceptions of the extent to which norms are shared by other Americans, scholarly understandings of the dynamic process of racial construction are incomplete.

## REFERENCES

- Abascal, Maria. 2020. "Contraction as a Response to Group Threat: Demographic Decline and Whites' Classification of People Who Are Ambiguously White." *American Sociological Review* 85 (2): 298–322.
- Abascal, Maria, Amada Armenta, W. M. Halm, and Daniel J. Hopkins. 2025. "Who Polices Which Boundaries? How Racial Self-Identification Affects External Classification." *American Journal of Sociology* 131 (3): 630–83.
- Abascal, Maria, Amada Armenta, William Halm, Daniel Hopkins, and Gall Sigler. 2024. "Calling the Kettle White: How Material Stakes Impact External Racial Classification." Preprint, August 2. <https://doi.org/10.31235/osf.io/87t9j>.
- Aizer, Anna, and Janet Currie. 2014. "The Intergenerational Transmission of Inequality: Maternal Disadvantage and Health at Birth." *Science* 344 (6186): 856–61.
- Alba, Richard D. 2005. "Bright vs. Blurred Boundaries: Second-Generation Assimilation and Exclusion in France, Germany, and the United States." *Ethnic and Racial Studies* 28 (1): 20–49.
- Bliss, Catherine. 2013. "The Marketization of Identity Politics." *Sociology* 47 (5): 1011–25.
- Boutyline, Andrei, and Laura K. Soter. 2021. "Cultural Schemas: What They Are, How to Find Them, and What to Do Once You've Caught One." *American Sociological Review* 86 (4): 728–58.
- Brubaker, Rogers. 2016a. *Trans: Gender and Race in an Age of Unsettled Identities*. Princeton University Press.
- Brubaker, Rogers. 2016b. "The Dolezal Affair: Race, Gender, and the Micropolitics of Identity." *Ethnic and Racial Studies* 39 (3): 414–48.
- Bryc, Katarzyna, Eric Y. Durand, J. Michael Macpherson, David Reich, and Joanna L. Mountain. 2015. "The Genetic Ancestry of African Americans, Latinos, and European Americans Across the United States." *American Journal of Human Genetics* 96 (1): 37–53.
- Campbell, Mary E., and Lisa Troyer. 2007. "The Implications of Racial Misclassification by Observers." *American Sociological Review* 72 (5): 750–65.
- Chen, Jacqueline M., Kristin Pauker, Sarah E. Gaither, David L. Hamilton, and Jeffrey W. Sherman. 2018. "Black + White = Not White: A Minority Bias in Categorizations of Black-White Multiracials." *Journal of Experimental Social Psychology* 78 (September): 43–54.
- Chen, Jacqueline M., Maria Clara P. de Paula Couto, Airi M. Sacco, and Yarrow Dunham. 2018. "To Be or Not to Be (Black or Multiracial or White): Cultural Variation in Racial Boundaries." *Social Psychological and Personality Science* 9 (7): 763–72.
- Chetty, Raj, Nathaniel Hendren, Maggie R. Jones, and Sonya R. Porter. 2020. "Race and Economic Opportunity in the United States: An Intergenerational Perspective." *Quarterly Journal of Economics* 135 (2): 711–83.
- Christensen, K. D., T. E. Jayaratne, J. S. Roberts, S. L. R. Kardia, and E. M. Petty. 2010. "Understanding of Basic Genetics in the United States: Results from a National Survey of Black and White Men and Women." *Public Health Genomics* 13 (7–8): 467–76.

- Coop, Graham. 2022. "Genetic Similarity Versus Genetic Ancestry Groups as Sample Descriptors in Human Genetics." Version 2. Preprint, arXiv. <https://doi.org/10.48550/ARXIV.2207.11595>.
- Correll, Shelley J., Cecilia L. Ridgeway, Ezra W. Zuckerman, Sharon Jank, Sara Jordan-Bloch, and Sandra Nakagawa. 2017. "It's the Conventional Thought That Counts: How Third-Order Inference Produces Status Advantage." *American Sociological Review* 82 (2): 297–327.
- Davis, F. James. 2001. *Who Is Black? One Nation's Definition*. 10th anniv. ed. Pennsylvania State University Press.
- Desmond, Matthew. 2016. *Evicted: Poverty and Profit in the American City*. Crown Publishers.
- Du Bois, W. E. Burghardt. 1903. *The Souls of Black Folk: Essays and Sketches*. A. C. McClurg & Co.
- Dubriwny, Tasha N., Benjamin R. Bates, and Jennifer L. Bevan. 2004. "Lay Understandings of Race: Cultural and Genetic Definitions." *Public Health Genomics* 7 (4): 185–95.
- Feldman, Marcus W., and Richard C. Lewontin. 2008. "Race, Ancestry and Medicine." In *Revisiting Race in a Genomic Age*. Rutgers University Press.
- Feliciano, Cynthia. 2016. "Shades of Race: How Phenotype and Observer Characteristics Shape Racial Classification." *American Behavioral Scientist* 60 (4): 390–419.
- Foeman, Anita, Bessie Lee Lawton, and Randall Rieger. 2015. "Questioning Race: Ancestry DNA and Dialog on Race." *Communication Monographs* 82 (2): 271–90.
- Fox, Cybelle, and Thomas A. Guglielmo. 2012. "Defining America's Racial Boundaries: Blacks, Mexicans, and European Immigrants, 1890–1945." *American Journal of Sociology* 118 (2): 327–79.
- Frank, Reanne, Ilana Redstone Akresh, and Bo Lu. 2010. "Latino Immigrants and the U.S. Racial Order: How and Where Do They Fit In?" *American Sociological Review* 75 (3): 378–401.
- Golash-Boza, Tanya, and William Darity. 2008. "Latino Racial Choices: The Effects of Skin Colour and Discrimination on Latinos' and Latinas' Racial Self-Identifications." *Ethnic and Racial Studies* 31 (5): 899–934.
- Gullickson, Aaron. 2010. "Racial Boundary Formation at the Dawn of Jim Crow: The Determinants and Effects of Black/Mulatto Occupational Differences in the United States, 1880." *American Journal of Sociology* 116 (1): 187–231.
- Gullickson, Aaron, and Ann Morning. 2011. "Choosing Race: Multiracial Ancestry and Identification." *Social Science Research* 40 (2): 498–512.
- Guo, Guang, Yilan Fu, Hedwig Lee, Tianji Cai, Kathleen Mullan Harris, and Yi Li. 2014. "Genetic Bio-Ancestry and Social Construction of Racial Classification in Social Surveys in the Contemporary United States." *Demography* 51 (1): 141–72.
- Hamilton, Tod G. 2019. *Immigration and the Remaking of Black America*. Russell Sage Foundation.
- Harmon, Amy. 2006. "Seeking Ancestry in DNA Ties Uncovered by Tests." *New York Times*. April 12. [www.nytimes.com/2006/04/12/us/seeking-ancestry-in-dna-ties-uncovered-by-tests.html](http://www.nytimes.com/2006/04/12/us/seeking-ancestry-in-dna-ties-uncovered-by-tests.html).
- Harris, David R., and Jeremiah Joseph Sim. 2002. "Who Is Multiracial? Assessing the Complexity of Lived Race." *American Sociological Review* 67 (4): 614–27.
- Hirschman, Daniel, and Ellen Berrey. 2017. "The Partial Deinstitutionalization of Affirmative Action in U.S. Higher Education, 1988 to 2014." *Sociological Science* 4: 449–68.
- Ho, Arnold K., Nour S. Kteily, and Jacqueline M. Chen. 2017. "'You're One of Us': Black Americans' Use of Hypodescent and Its Association with Egalitarianism." *Journal of Personality and Social Psychology* 113 (5): 753–68.
- Huang, Tiffany J. 2023. "What We Talk About When We Talk About Ethnicity: Hispanic Self-Classification and Appraisal in an Online College Forum." *Sociology of Race and Ethnicity* 9 (4): 502–17.

## Policing the Boundaries of Blackness

- Irizarry, Yasmiyn, Ellis P. Monk, and Ryon J. Cobb. 2023. "Race-Shifting in the United States: Latinxs, Skin Tone, and Ethnoracial Alignments." *Sociology of Race and Ethnicity* 9 (1): 37–55.
- Jerolmack, Colin, and Shamus Khan. 2014. "Talk Is Cheap: Ethnography and the Attitudinal Fallacy." *Sociological Methods and Research* 43 (2): 178–209.
- Johnson, Cathryn, Timothy J. Dowd, and Cecilia L. Ridgeway. 2006. "Legitimacy as a Social Process." *Annual Review of Sociology* 32 (1): 53–78.
- Johnson, Rucker C. 2019. *Children of the Dream: Why School Integration Works*. Basic Books.
- Karl, Robert. 2020. "23andDiverseMe: Using Genetic Ancestry Tests to Establish Minority Status." *Health Matrix* 30 (475).
- Karlsen, Kristian Bernt, Anders Holm, and Richard Breen. 2012. "Comparing Regression Coefficients Between Same-Sample Nested Models Using Logit and Probit: A New Method." *Sociological Methodology* 42 (1): 286–313.
- Lamont, Michèle, and Virág Molnár. 2002. "The Study of Boundaries in the Social Sciences." *Annual Review of Sociology* 28 (1): 167–95.
- Lee, Jennifer, and Frank D. Bean. 2012. *The Diversity Paradox: Immigration and the Color Line in Twenty-First Century America*. Russell Sage.
- Lee, Sandra Soo-Jin, Deborah A. Bolnick, Troy Duster, Pilar Ossorio, and Kimberly TallBear. 2009. "The Illusive Gold Standard in Genetic Ancestry Testing." *Science* 325 (5936): 38–39.
- López, Nancy, and Howard Hogan. 2021. "What's Your Street Race? The Urgency of Critical Race Theory and Intersectionality as Lenses for Revising the U.S. Office of Management and Budget Guidelines, Census and Administrative Data in Latinx Communities and Beyond." *Genealogy* 5 (3): article 75.
- Ma, Debbie S., Joshua Correll, and Bernd Wittenbrink. 2015. "The Chicago Face Database: A Free Stimulus Set of Faces and Norming Data." *Behavior Research Methods* 47 (4): 1122–35.
- Ma, Debbie S., Justin Kantner, and Bernd Wittenbrink. 2021. "Chicago Face Database: Multiracial Expansion." *Behavior Research Methods* 53 (3): 1289–300.
- Massey, Douglas S., and Nancy A. Denton. 2003. *American Apartheid: Segregation and the Making of the Underclass*, 10th ed. Harvard University Press.
- Mathieson, Iain, and Aylwyn Scally. 2020. "What Is Ancestry?" *PLOS Genetics* 16 (3): e1008624.
- Melamed, David, Christopher W. Munn, Leanne Barry, Bradley Montgomery, and Oneya F. Okuwobi. 2019. "Status Characteristics, Implicit Bias, and the Production of Racial Inequality." *American Sociological Review* 84 (6): 1013–36.
- Mildenberger, Matto, and Dustin Tingley. 2019. "Beliefs About Climate Beliefs: The Importance of Second-Order Opinions for Climate Politics." *British Journal of Political Science* 49 (4): 1279–307.
- Mize, Trenton D. 2024. "Divergence and Convergence Across Presumed and Actual Stereotypes." *Socius: Sociological Research for a Dynamic World* 10:1–3.
- Monk, Ellis P. 2022. "Inequality Without Groups: Contemporary Theories of Categories, Intersectional Typicality, and the Disaggregation of Difference." *Sociological Theory* 40 (1): 3–27.
- Mora, G. Cristina. 2014. "Cross-Field Effects and Ethnic Classification: The Institutionalization of Hispanic Panethnicity, 1965 to 1990." *American Sociological Review* 79 (2): 183–210.
- Moreno-Estrada, Andrés, Simon Gravel, Fouad Zakharia, et al. 2013. "Reconstructing the Population Genetic History of the Caribbean." *PLoS Genetics* 9 (11): e1003925.
- Morning, Ann. 2011. *The Nature of Race: How Scientists Think and Teach About Human Difference*. University of California Press.
- Morning, Ann. 2015. "It's Impossible to Lie About Your Race." *Huffington Post*. July 1. [https://www.huffpost.com/entry/its-impossible-to-lie-about-your-race\\_b\\_7708598](https://www.huffpost.com/entry/its-impossible-to-lie-about-your-race_b_7708598).

- Morning, Ann. 2018. "Kaleidoscope: Contested Identities and New Forms of Race Membership." *Ethnic and Racial Studies* 41 (6): 1055–73.
- Morning, Ann, and Aliya Saperstein. 2018. "The Generational Locus of Multiraciality and Its Implications for Racial Self-Identification." *ANNALS of the American Academy of Political and Social Science* 677 (1): 57–68.
- National Academies of Sciences, Engineering, and Medicine. 2023. *Using Population Descriptors in Genetics and Genomics Research: A New Framework for an Evolving Field*. National Academies Press. <https://doi.org/10.17226/26902>.
- Nelson, Alondra. 2016. *The Social Life of DNA: Race, Reparations, and Reconciliation After the Genome*. Beacon Press.
- O’Gorman, Hubert J. 1975. "Pluralistic Ignorance and White Estimates of White Support for Racial Segregation." *Public Opinion Quarterly* 39 (3): 313–30.
- O’Gorman, Hubert J., and Stephen L. Garry. 1976. "Pluralistic Ignorance—a Replication and Extension." *Public Opinion Quarterly* 40 (4): 449–58.
- Okamoto, Dina G. 2014. *Redefining Race: Asian American Panethnicity and Shifting Ethnic Boundaries*. Russell Sage Foundation.
- Omi, Michael, and Howard Winant. 2014. *Racial Formation in the United States*, 3rd ed. Routledge.
- 1000 Genomes Project Consortium. 2015. "A Global Reference for Human Genetic Variation." *Nature* 526 (7571): 68–74.
- Orth, Taylor. 2022. *DNA Tests: Many Americans Report Surprises and New Connections*. YouGov. <https://today.yougov.com/topics/society/articles-reports/2022/02/24/dna-tests-many-americans-report-surprises-and-new->
- Penner, Andrew M., and Aliya Saperstein. 2013. "Engendering Racial Perceptions: An Intersectional Analysis of How Social Status Shapes Race." *Gender and Society* 27 (3): 319–44.
- Prentice, Deborah A., and Dale T. Miller. 1993. "Pluralistic Ignorance and Alcohol Use on Campus: Some Consequences of Misperceiving the Social Norm." *Journal of Personality and Social Psychology* 64 (2): 243–56.
- Reardon, Sean F., Demetra Kalogrides, and Kenneth Shores. 2019. "The Geography of Racial/Ethnic Test Score Gaps." *American Journal of Sociology* 124 (4): 1164–221.
- Reskin, Barbara. 2012. "The Race Discrimination System." *Annual Review of Sociology* 38 (1): 17–35.
- Ridgeway, Cecilia L., and Shelley J. Correll. 2006. "Consensus and the Creation of Status Beliefs." *Social Forces* 85 (1): 431–53.
- Roberts, Steven O., Carmelle Bareket-Shavit, and Michelle Wang. 2021. "The Souls of Black Folk (and the Weight of Black Ancestry) in U.S. Black Americans’ Racial Categorization." *Journal of Personality and Social Psychology* 121 (1): 1–22.
- Roth, Wendy D. 2012. *Race Migrations: Latinos and the Cultural Transformation of Race*. Stanford University Press.
- Roth, Wendy D. 2016. "The Multiple Dimensions of Race." *Ethnic and Racial Studies* 39 (8): 1398–406.
- Roth, Wendy D. 2018. "Unsettled Identities amid Settled Classifications? Toward a Sociology of Racial Appraisals." *Ethnic and Racial Studies* 41 (6): 1093–112.
- Roth, Wendy D., and Biorn Ivermark. 2018. "Genetic Options: The Impact of Genetic Ancestry Testing on Consumers’ Racial and Ethnic Identities." *American Journal of Sociology* 124 (1): 150–84.
- Roth, Wendy D., and Şule Yaylaci. 2024. "Genetic Options and Constraints: A Randomized Controlled Trial on How Genetic Ancestry Tests Affect Ethnic and Racial Identities." *American Journal of Sociology* 129 (4): 1172–215.
- Rothstein, Richard. 2017. *The Color of Law: A Forgotten History of How Our Government Segregated America*. Liveright.
- Royal, Charmaine D., John Novembre, Stephanie M. Fullerton, et al. 2010. "Inferring Genetic Ancestry: Opportunities, Challenges, and Implications." *American Journal of Human Genetics* 86 (5): 661–73.

## Policing the Boundaries of Blackness

- Rubanovich, Caryn Kseniya, Riley Taitingfong, Cynthia Triplett, et al. 2021. "Impacts of Personal DNA Ancestry Testing." *Journal of Community Genetics* 12 (1): 37–52.
- Saperstein, Aliya, Jessica M. Kizer, and Andrew M. Penner. 2015. "Making the Most of Multiple Measures: Disentangling the Effects of Different Dimensions of Race in Survey Research." *American Behavioral Scientist* 60 (4): 519–37.
- Saperstein, Aliya, and Andrew M. Penner. 2012. "Racial Fluidity and Inequality in the United States." *American Journal of Sociology* 118 (3): 676–727.
- Schachter, Ariela, René D. Flores, and Neda Maghbouleh. 2021. "Ancestry, Color, or Culture? How Whites Racially Classify Others in the U.S." *American Journal of Sociology* 126 (5): 1220–63.
- Schoon, Eric W. 2022. "Operationalizing Legitimacy." *American Sociological Review* 87 (3): 478–503.
- Starr, Paul, and Christina Pao. 2024. "The Multiracial Complication: The 2020 Census and the Fictitious Multiracial Boom." *Sociological Science* 11:1107–23.
- Thompson, Marissa E. 2025. "'Paper, Practice, Ancestry, Culture': Racial Frames and Contested Racial/Ethnic Census Categories." *Social Forces*, June 11, soaf075. <https://doi.org/10.1093/sf/soaf075>.
- Trejo, Sam, and Daphne O. Martschenko. 2026. *What We Inherit: How New Technologies and Old Myths Are Shaping Our Genomic Future*. Princeton University Press.
- VanderWeele, Tyler J. 2016. "Mediation Analysis: A Practitioner's Guide." *Annual Review of Public Health* 37 (1): 17–32.
- Walker, Henry A., Larry Rogers, and Morris Zelditch. 1988. "Legitimacy and Collective Action: A Research Note." *Social Forces* 67 (1): 216–28.
- Weber, Max. 1968. *Economy and Society: An Outline of Interpretive Sociology*. Badminter.
- Wimmer, Andreas. 2008. "The Making and Unmaking of Ethnic Boundaries: A Multi-level Process Theory." *American Journal of Sociology* 113 (4): 970–1022.
- Wimmer, Andreas. 2013. *Ethnic Boundary Making: Institutions, Power, Networks*. Oxford Studies in Culture and Politics. Oxford University Press.
- Zelditch, Morris. 2006. "Legitimacy Theory." In *Contemporary Social Psychological Theories*, edited by Peter J. Burke. Stanford University Press.
- Zhang, Luyin, and Sam Trejo. 2025. "DNA, Self-Reported Ancestry, and Social Scientific Inquiry." Preprint, February 24. [https://doi.org/10.31235/osf.io/mdybz\\_v1](https://doi.org/10.31235/osf.io/mdybz_v1).
- Zhang, Sarah. 2018. "A Man Says His DNA Test Proves He's Black, and He's Suing." *The Atlantic*. September 19, pp. 1–13.

APPENDIX

Table A1. Main effects of ancestry, context, and prior identification (Study 1)

	(1)	(2)	(3)
	Ancestry	Context	Prior Identification
<b>A. 1st Order Classification</b>			
Treatment	0.11*** (0.02)	0.02 (0.02)	0.05** (0.02)
<b>B. 1st Order Approval</b>			
Treatment	0.22*** (0.04)	0.10** (0.04)	0.18*** (0.04)
<b>C. 2nd Order Classification</b>			
Treatment	0.09*** (0.02)	0.03 (0.02)	0.08*** (0.02)
Observations	3100	3100	3100

*Notes:* Standard errors in parentheses. \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ . Panels A, B, and C display treatment effects from separate regressions. The ancestry column illustrates the effect of 36% SSA ancestry relative to 4% SSA ancestry. The context column illustrates the effect of the census condition relative to the scholarship condition. The prior identification column illustrates the effect of a Black prior identity relative to a non-Black prior identity. All classification responses in Study 1 are drawn from a single forced choice option.

Table A2. Main effects of ancestry (Study 2)

	Black Respondents	White Respondents	Diff (White-Black)
<b>A. 1st Order Classification (Forced Choice)</b>			
0% SSA ancestry	-0.08** (0.03)	-0.05* (0.02)	0.03 (0.03)
36% SSA ancestry	0.14*** (0.03)	0.15*** (0.03)	0.00 (0.04)
Observations	1741	1748	3489
<b>B. 1st Order Approval</b>			
0% SSA ancestry	-0.25*** (0.06)	-0.39*** (0.05)	-0.14 (0.08)
36% SSA ancestry	0.47*** (0.06)	0.38*** (0.05)	-0.09 (0.07)
Observations	1741	1748	3489
<b>C. 2nd Order Classification</b>			
0% SSA ancestry	-0.04 (0.03)	0.06 (0.03)	0.10* (0.04)
36% SSA ancestry	0.13*** (0.03)	0.18*** (0.03)	0.05 (0.05)
Observations	1191	1207	2398
<b>D. 2nd Order Approval</b>			
0% SSA ancestry	-0.13* (0.06)	-0.18*** (0.05)	-0.05 (0.08)
36% SSA ancestry	0.46*** (0.06)	0.43*** (0.05)	-0.02 (0.08)
Observations	1741	1748	3489
<b>E. 1st Order Classification (Mark All That Apply)</b>			
0% SSA ancestry	-0.15*** (0.04)	-0.23*** (0.04)	-0.08 (0.05)
36% SSA ancestry	0.25*** (0.04)	0.31*** (0.04)	0.06 (0.05)
Observations	873	867	1740

Notes: Standard errors in parentheses. \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ . Panels A, B, C, and D display treatment effects from separate regressions. The reference category for all regressions is 4% SSA ancestry. Observations vary across regression specifications because respondents were randomly assigned to view different versions of the classification questions.

Table A3. Main effects of context and prior identification (Study 2)

	Context			Prior Identification		
	Black Respondents	White Respondents	Diff (White-Black)	Black Respondents	White Respondents	Diff (White-Black)
<b>A. 1st Order Classification</b>						
Treatment	0.05* (0.02)	0.09*** (0.02)	0.03 (0.03)	-0.03 (0.02)	0.03 (0.02)	0.06* (0.03)
Observations	1741	1748	3489	1741	1748	3489
<b>B. 1st Order Approval</b>						
Treatment	0.28*** (0.05)	0.14*** (0.04)	-0.13* (0.06)	-0.04 (0.05)	0.05 (0.04)	0.09 (0.06)
Observations	1741	1748	3489	1741	1748	3489
<b>C. 2nd Order Classification</b>						
Treatment	0.04 (0.03)	0.03 (0.03)	-0.01 (0.04)	-0.03 (0.03)	0.02 (0.03)	0.05 (0.04)
Observations	1191	1207	2398	1191	1207	2398
<b>D. 2nd Order Approval</b>						
Treatment	0.31*** (0.05)	0.07 (0.04)	-0.24*** (0.06)	-0.01 (0.05)	0.02 (0.04)	0.03 (0.04)
Observations	1741	1748	3489	1741	1748	3489
<b>E. 1st Order Classification (Mark All That Apply)</b>						
Treatment	0.05 (0.03)	-0.01 (0.03)	-0.06 (0.04)	-0.02 (0.03)	0.04 (0.03)	0.06 (0.04)
Observations	873	867	1740	873	867	1740

Notes: Standard errors in parentheses. \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ . Panels A-E display treatment effects from separate regressions. Observations vary across regression specifications because respondents were randomly assigned to view different versions of the classification questions.

Table A4. Principal component loadings for the integrity index (Study 1).

<i>Survey Question</i>	<b>Factor Loadings</b>		
	Component 1	Component 2	Component 3
Fair	0.58	-0.48	0.66
Legitimate	0.57	0.82	0.09
Honest	0.58	-0.33	-0.75
Fraction of Variance Explained:	0.86	0.08	0.06

*Notes:* n=3,100. Results are from principal components analyses (PCA) of survey items related to perceived integrity of the vignette individual's decision to identify as Black. See the Experimental Items section of the appendix for the exact wording of each survey item.

Table A5. Mediation of Sub-Saharan African ancestry treatment effects (Study 2).

		Black Respondents			White Respondents		
A. 1 <sup>st</sup> Order Approval							
		Mediator Effect	SE1	Fraction of Total Effect	Mediator Effect	SE1	Fraction of Total Effect
4% SSA Ancestry (ref=0%)	Integrity Index	0.34	0.05	1.40	0.36	0.04	0.92
	Perceived Discrimination	-0.01	0.00	-0.03	0.00	0.00	-0.01
	Perceived Shared Culture	0.01	0.01	0.04	0.01	0.00	0.02
36% SSA Ancestry (ref=0%)	Integrity Index	0.72	0.05	1.00	0.73	0.04	0.98
	Perceived Discrimination	0.01	0.00	0.01	0.01	0.00	0.02
	Perceived Shared Culture	0.04	0.01	0.05	0.03	0.01	0.04
	Total	1.10	0.07	2.50	1.10	0.06	2.00
B. 1 <sup>st</sup> Order Classification (Forced Choice)							
		Mediator Effect	SE1	Fraction of Total Effect	Mediator Effect	SE1	Fraction of Total Effect
4% SSA Ancestry (ref=0%)	Integrity Index	0.11	0.02	1.40	0.11	0.01	2.20
	Perceived Discrimination	0.00	0.00	-0.03	0.00	0.00	-0.01
	Perceived Shared Culture	0.01	0.00	0.10	0.01	0.01	0.29
36% SSA Ancestry (ref=0%)	Integrity Index	0.23	0.02	1.10	0.22	0.02	1.20
	Perceived Discrimination	0.00	0.00	0.01	0.00	0.00	0.01
	Perceived Shared Culture	0.03	0.01	0.13	0.05	0.01	0.27
	Total	0.38	0.03	2.60	0.39	0.02	4.00
C. 2 <sup>nd</sup> Order Classification (Forced Choice)							
		Mediator Effect	SE1	Fraction of Total Effect	Mediator Effect	SE1	Fraction of Total Effect
4% SSA Ancestry (ref=0%)	Integrity Index	0.07	0.01	2.40	0.08	0.01	-1.20
	Perceived Discrimination	0.00	0.00	-0.07	-0.01	0.00	0.09
	Perceived Shared Culture	0.02	0.01	0.56	0.01	0.01	-0.14
36% SSA Ancestry (ref=0%)	Integrity Index	0.16	0.02	0.95	0.16	0.02	2.00
	Perceived Discrimination	0.01	0.00	0.03	0.01	0.00	0.10
	Perceived Shared Culture	0.06	0.01	0.36	0.05	0.01	0.56
	Total	0.31	0.03	4.20	0.29	0.03	1.40

Table A6: Mediation of Sub-Saharan African ancestry treatment effects using the components of the integrity index (Study 1).

	Mediator Effect	SE	Fraction of Total Effect
<b>A. 1<sup>st</sup> Order Approval</b>			
Perceived Fairness	0.07	0.01	0.30
Perceived Legitimacy	0.04	0.01	0.16
Perceived Honesty	0.06	0.01	0.29
Total	0.16	0.02	0.75
<b>B. 1<sup>st</sup> Order Classification</b>			
Perceived Fairness	0.02	0.01	0.22
Perceived Legitimacy	0.01	0.00	0.11
Perceived Honesty	0.02	0.01	0.22
Total	0.06	0.01	0.55
<b>C. 2<sup>nd</sup> Order Approval</b>			
Perceived Fairness	0.02	0.00	0.19
Perceived Legitimacy	0.01	0.00	0.11
Perceived Honesty	0.03	0.01	0.28
Total	0.05	0.01	0.57

*Notes:* n=3100. SE=Standard Error. Panels A, B, and C display mediation results for separate outcomes.

Table A7. Moderation of Sub-Saharan African ancestry treatment effects (Study 1) .

	(1) Likert Approval	(2) Respondent's Racial Classification = Black	(3) Perceived Avg. Black American's Classification = Black
<b>A. Perceived Own SSA Ancestry</b>			
36% SSA Ancestry	0.18* (0.08)	0.08* (0.04)	0.09* (0.04)
Perceived Ancestry %	0.02* (0.01)	0.00 (0.00)	0.01 (0.00)
36% SSA Ancestry X Perceived Own Ancestry %	0.01 (0.01)	0.01 (0.01)	-0.00 (0.01)
<b>B. Perceived Avg. SSA Ancestry</b>			
36% SSA Ancestry	0.14 (0.09)	0.04 (0.04)	0.08 (0.04)
Perceived Avg. Ancestry %	0.02 (0.01)	0.01 (0.00)	0.01* (0.00)
36% SSA Ancestry X Perceived Avg. Ancestry %	0.01 (0.01)	0.01 (0.01)	0.00 (0.01)
<b>C. Diff Perceived Avg. &amp; Own SSA Ancestry</b>			
36% SSA Ancestry	0.22*** (0.04)	0.11*** (0.02)	0.09*** (0.02)
Avg. - Own Ancestry %	-0.01 (0.01)	0.00 (0.01)	0.00 (0.01)
36% SSA Ancestry X (Avg. - Own Ancestry %)	0.01 (0.02)	0.01 (0.01)	0.00 (0.01)
Observations	3100	3100	3100

*Notes:* Standard errors in parentheses. \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ . Each column reports results from separate regressions, while Panels A, B, and C display results for separate potential moderators. The treatment effects of 36% SSA ancestry on each of the three outcomes can be found in Table 3.

Table A8. Baseline classification and approval rates (averaged across treatment conditions)

	Study 1	Study 2	
	Black Respondents	Black Respondents	White Respondents
1st Order Classification	0.65	0.35	0.24
2nd Order Classification	0.57	0.38	0.28
1st Order Approval	4.92	3.84	3.63
2nd Order Approval	–	3.32	3.18

*Notes:* 1<sup>st</sup> order classification rates illustrate the fraction of respondents who classified the vignette individual as Black. 2<sup>nd</sup> order classification rates illustrate fraction of respondents who believe that most other same-race Americans would classify the vignette individual as Black. Approval outcomes are measured on a 7-point Likert scale.

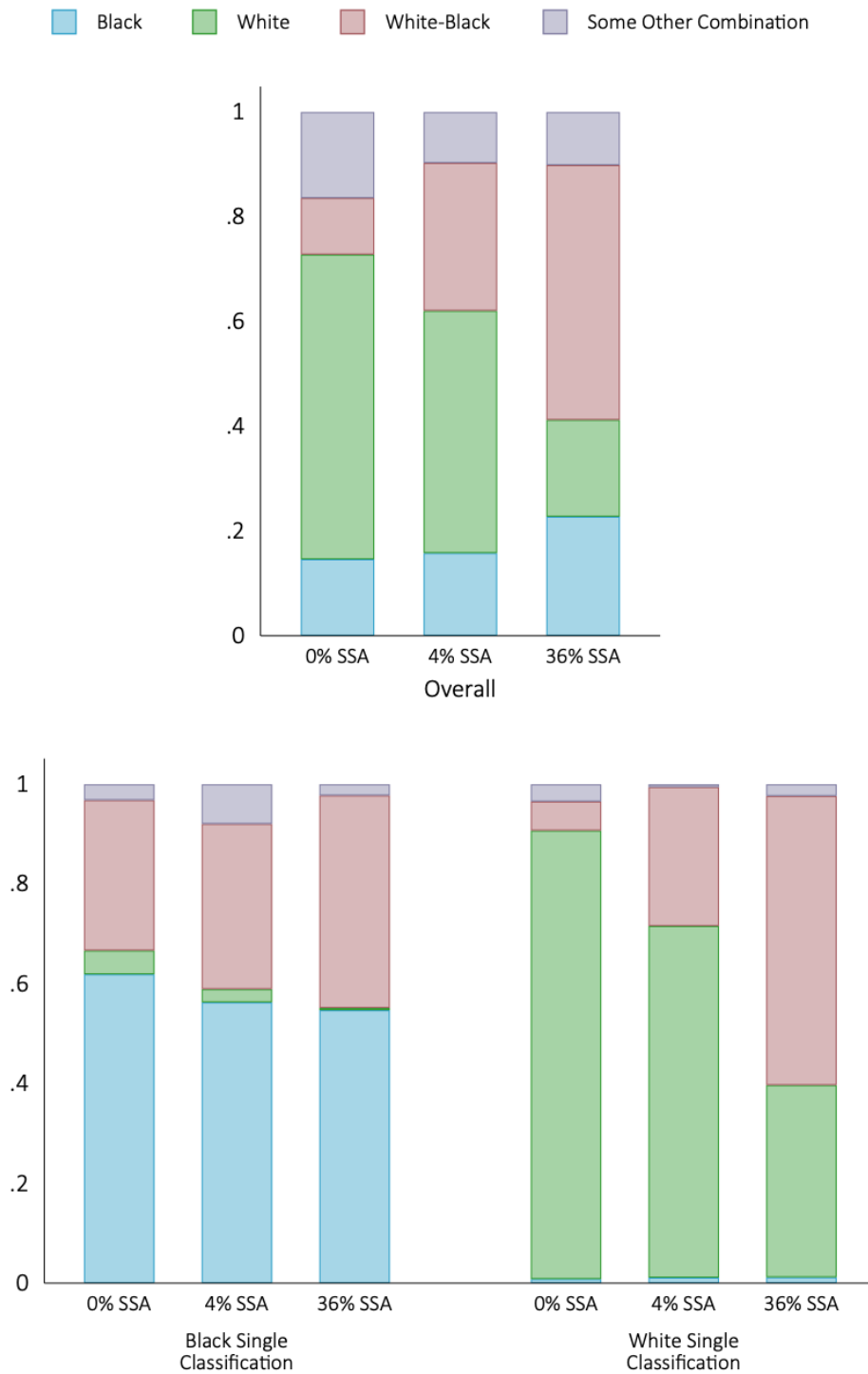


Figure A1. Comparing “select one” and “mark one or more” responses (Study 2).

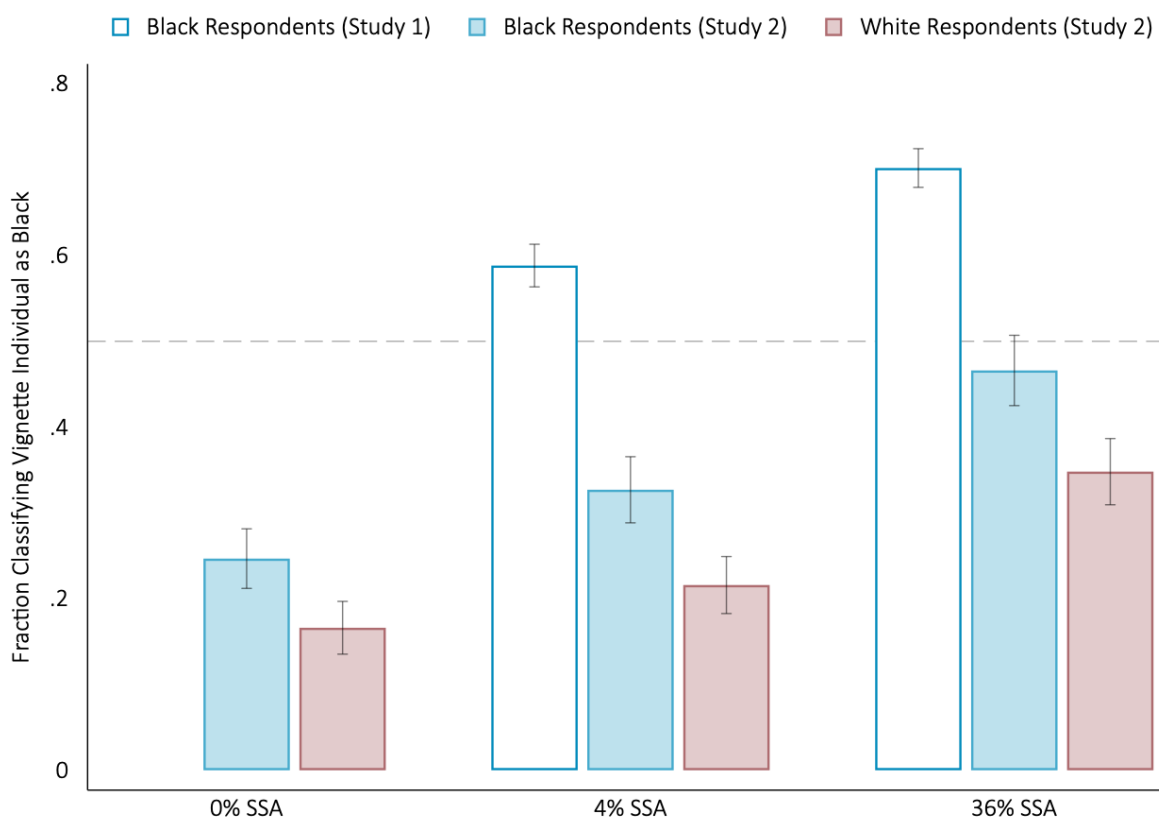


Figure A2. Baseline classification rates, by ancestry category (Study 1 and Study 2)

Notes: The grey dashed line indicates 50% classification rates.

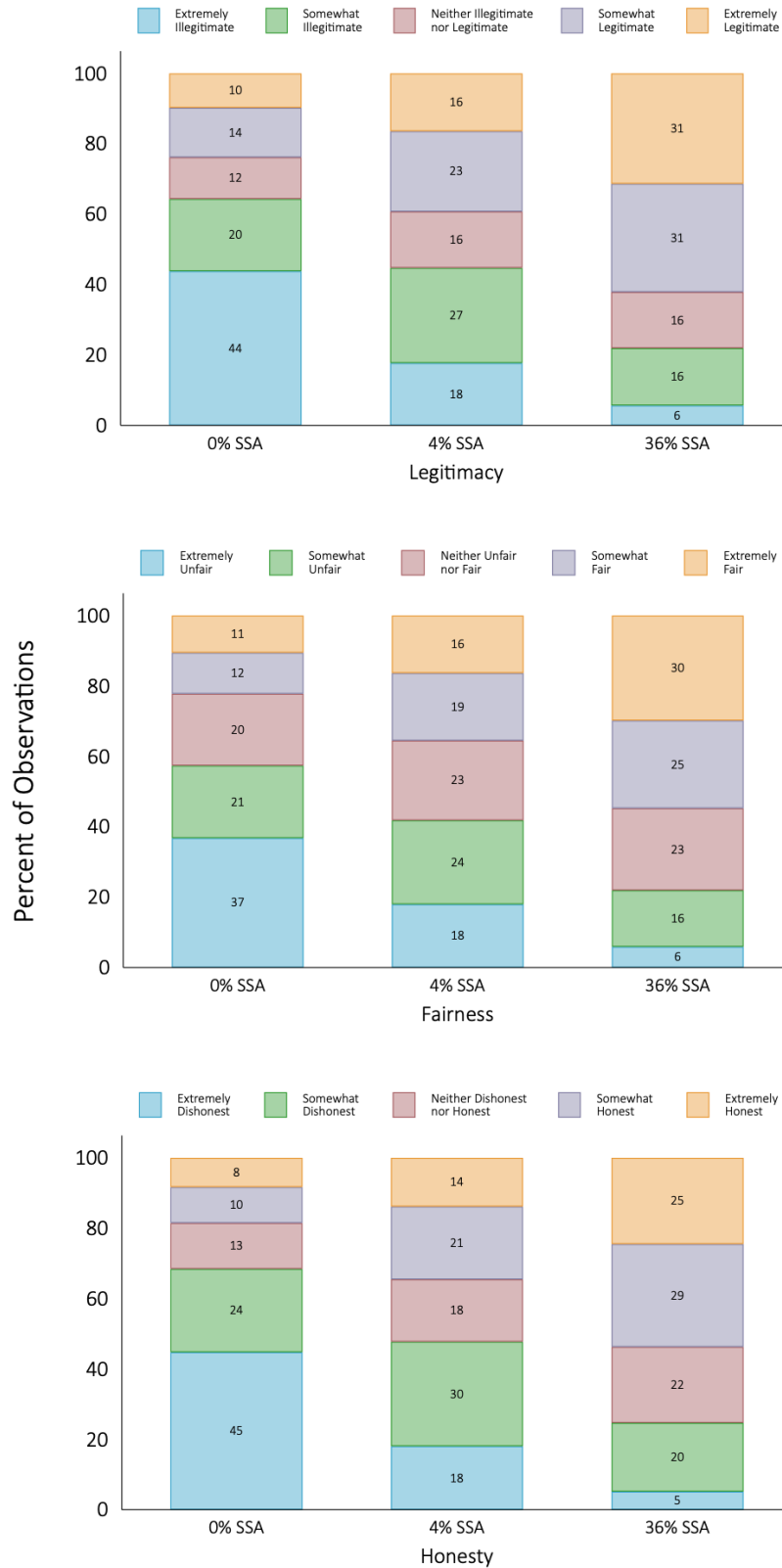


Figure A3. Perceptions of legitimacy, fairness, and honesty, by ancestry treatment condition (Study 2).

Notes: This figure includes pooled responses from both Black and White respondents in Study 2.

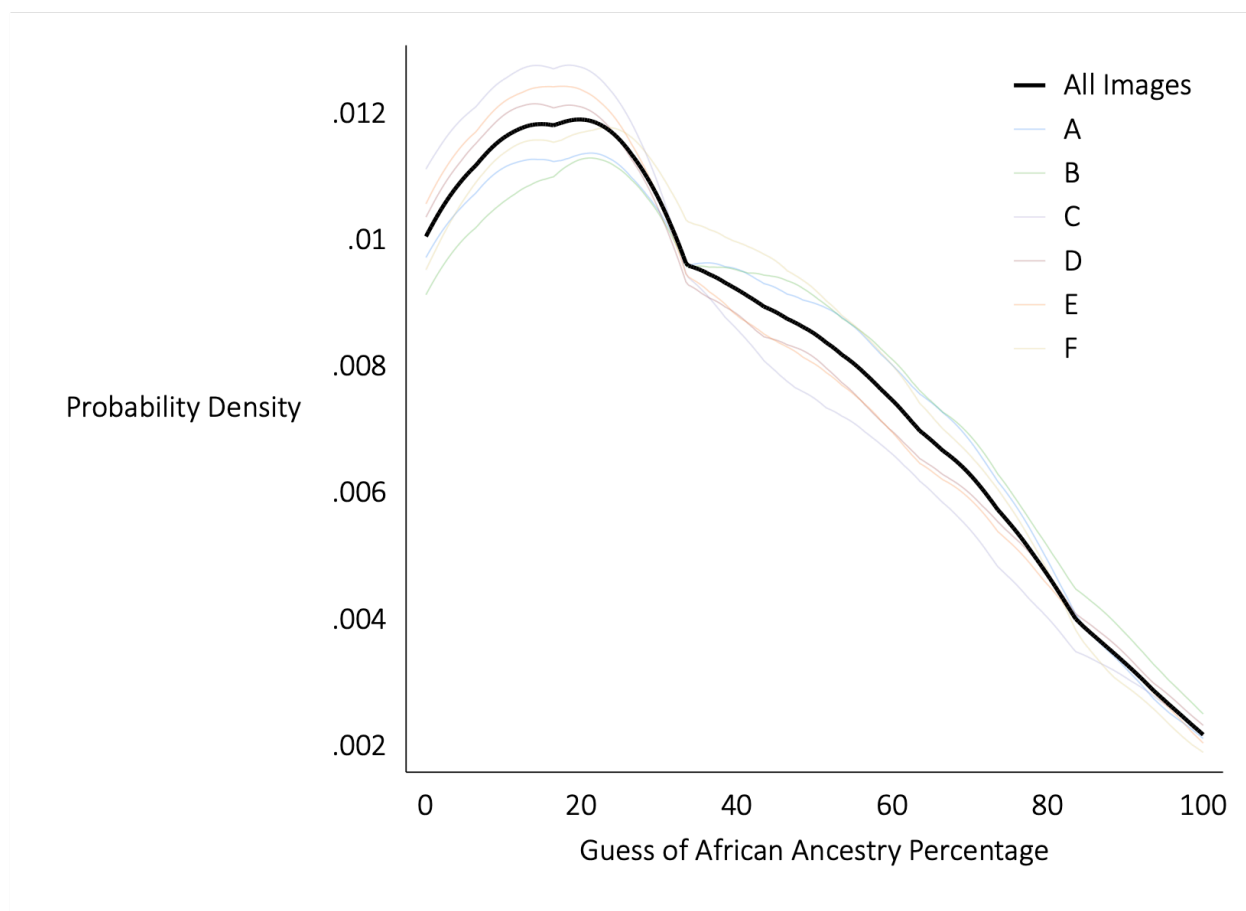


Figure A4. Pretest results illustrating respondent guess of SSA for each of the 6 images.  
*Notes:* This pretest was conducted in Summer 2022 using Prolific. The pool of respondents surveyed in this study were unique to the pretests.

## SURVEY ITEMS – Study 1

Meet {NAME}. {NAME} is an American citizen whose family has been in the U.S. for generations. {NAME} is usually unsure of how to identify, but mostly {has/ has not} identified as Black/African-American.

{NAME} recently received {his/her} genetic ancestry test results from a company such as *23andMe* or *Ancestry.com*. Genetic ancestry tests use a person's DNA to make an informed guess regarding where a person's ancestors lived. {NAME}'s genetic ancestry test results estimate that {he/she} has approximately {4% / 36%} Sub-Saharan African ancestry (from countries such as Ghana and Nigeria) and {96% / 64%} non-African ancestry.

1. A few weeks after receiving these genetic ancestry test results, {NAME} {filled out a government census and identified as Black/African-American / applied for a college scholarship intended for Black/African-American students (e.g., NAACP)}. How negative or positive<sup>1</sup> do you feel about {NAME}'s decision to identify as Black/African-American {on the government census / for a college scholarship intended for Black/African-American students}?

- Extremely negative
- Somewhat negative
- Slightly negative
- Equally positive and negative
- Slightly positive
- Somewhat positive
- Extremely positive

2. In a paragraph, please answer the following question. We are interested in your beliefs on what it means for a person to be Black/African-American. In your opinion, what are the characteristics, experiences, attitudes, and values that define being Black/African-American?

[PARAGRAPH TEXT ENTRY]

3. In a paragraph, please answer the following question. How do you feel about {NAME} identifying as Black/African-American {on the government census / for a college scholarship intended for Black/African-American students} after taking a genetic ancestry test? Please specify your reactions, thoughts, and emotions about {his/her} decision.

---

<sup>1</sup> The order in which 'negative' and 'positive' appear were randomized for this question.

[PARAGRAPH TEXT ENTRY]

4. In your opinion, which of the following best describes {NAME}'s race/ethnicity? Please select only one option<sup>2</sup>.
- White
  - Black or African American
  - Asian
  - American Indian or Alaska Native
  - Native Hawaiian or Other Pacific Islander
  - Hispanic/Latino
  - Some Other Race
5. In your opinion, how do you think **most U.S.-born Black Americans** would describe {NAME}'s race/ethnicity? Please select only one option.
- White
  - Black or African American
  - Asian
  - American Indian or Alaska Native
  - Native Hawaiian or Other Pacific Islander
  - Hispanic/Latino
  - Some Other Race

[Questions 6-8 presented in random order]

6. In your opinion, how honest is {NAME}'s decision to identify as Black/African-American?
- Extremely dishonest<sup>3</sup>
  - Somewhat dishonest
  - Neither dishonest nor honest
  - Somewhat honest
  - Extremely honest
7. In your opinion, how legitimate is {NAME}'s decision to identify as Black/African-American?
- Extremely illegitimate
  - Somewhat illegitimate
  - Neither illegitimate nor legitimate

---

<sup>2</sup> Respondents were only able to select one answer for questions 4 & 5

<sup>3</sup> Order of the scale from extremely dishonest/illegitimate/unfair to extremely honest/legitimate/fair was randomized match the orderings of the other Likert scales. For example, if respondents saw "Extremely negative" as the first option in question 1, they also saw "Extremely dishonest/illegitimate/unfair" first for these questions.

- Somewhat legitimate
- Extremely legitimate

8. In your opinion, how fair is {NAME}'s decision to identify as Black/African-American?

- Extremely unfair
- Somewhat unfair
- Neither unfair nor fair
- Somewhat fair
- Extremely fair

[Questions 9-10 presented in random order]

9. In your opinion, how much discrimination has {NAME} ever faced on the basis of {his/her} race/ethnicity?

- None
- A little
- A moderate amount
- A lot
- A great deal

10. In your opinion, how much shared cultural heritage, background, and experience does {NAME} have in common with the U.S. Black/African-American community?

- None
- A little
- A moderate amount
- A lot
- A great deal

11. Around the same time that {NAME} received {his/her} genetic ancestry test results ( {4% / 36%} Sub-Saharan African ancestry and {96% / 64%} non-African ancestry), {he/she} also {filled out a government census and identified as Black/African-American /applied for a college scholarship intended for Black/African-American students (e.g., NAACP)}.

How negative or positive<sup>4</sup> do you feel about {NAME}'s decision to identify as Black/African-American {on the government census/for a college scholarship intended for Black/African-American students}?

- Extremely negative
- Somewhat negative

---

<sup>4</sup> The order in which 'negative' and 'positive' appear was randomized for this question (and mirrored the order presented in question 1).

- Slightly negative
- Equally positive and negative
- Slightly positive
- Somewhat positive
- Extremely positive

12. To the best of your knowledge, what percentage Sub-Saharan African genetic ancestry do you believe **you** have?

Sub-Saharan Africa is the entire region of Africa that is south of the Sahara Desert. It includes countries such as Ghana, Nigeria, Kenya, Ethiopia, and Uganda. It does not include Northern African countries such as Egypt, Morocco, and Algeria.

[Sliding scale response from 0 - 100]

13. To the best of your knowledge, what percentage Sub-Saharan African genetic ancestry do you believe that the **average U.S.-born Black American** has?

[Sliding scale response from 0 - 100]

14. Have you ever taken a genetic ancestry test?

- Yes
- No

## SURVEY ITEMS – Study 2

Meet {NAME}. {NAME} is an American citizen whose family has been in the U.S. for generations. {NAME} is usually unsure of how to identify, but mostly has identified as {Black/African-American / White}.

{NAME} recently received {his/her} genetic ancestry test results from a company such as *23andMe* or *Ancestry.com*. Genetic ancestry tests use a person's DNA to make an informed guess regarding where a person's ancestors lived. {NAME}'s genetic ancestry test results estimate that {he/she} has approximately {0% / 4% / 36%} Sub-Saharan African ancestry (from countries such as Ghana and Nigeria) and {100% / 96% / 64%} European ancestry.

A few weeks after receiving these genetic ancestry test results, {NAME} {filled out a government census and identified as Black/African-American / applied for a college scholarship intended for Black/African-American students (e.g., NAACP)}.

15. In your opinion, which of the following best describes {NAME}'s race/ethnicity? Please {select only one option / select one or more options}.

- White
- Black or African American
- Asian
- American Indian or Alaska Native
- Native Hawaiian or Other Pacific Islander
- Hispanic/Latino
- Some Other Race

16. How negative or positive<sup>5</sup> do you feel about {NAME}'s decision to identify as Black/African-American {on the government census / for a college scholarship intended for Black/African-American students}?

- Extremely negative
- Somewhat negative
- Slightly negative
- Equally positive and negative
- Slightly positive
- Somewhat positive
- Extremely positive

---

<sup>5</sup> The order in which 'negative' and 'positive' appear was randomized for this question and all other similar questions.

[Questions 3-5 presented in a random order]

17. In your opinion, how honest is {NAME}'s decision to identify as Black/African-American?

- Extremely dishonest<sup>6</sup>
- Somewhat dishonest
- Neither dishonest nor honest
- Somewhat honest
- Extremely honest

18. In your opinion, how legitimate is {NAME}'s decision to identify as Black/African-American?

- Extremely illegitimate
- Somewhat illegitimate
- Neither illegitimate nor legitimate
- Somewhat legitimate
- Extremely legitimate

19. In your opinion, how fair is {NAME}'s decision to identify as Black/African-American?

- Extremely unfair
- Somewhat unfair
- Neither unfair nor fair
- Somewhat fair
- Extremely fair

20. In your opinion, how much discrimination has {NAME} ever faced on the basis of {his/her} race/ethnicity?

- None
- A little
- A moderate amount
- A lot
- A great deal

21. In your opinion, how much shared cultural heritage, background, and experience does {NAME} have in common with the U.S. Black/African-American community?

- None
- A little
- A moderate amount

---

<sup>6</sup> Order of the scale from extremely dishonest/illegitimate/unfair to extremely honest/legitimate/fair was randomized match the orderings of the other Likert scales. For example, if respondents saw "Extremely negative" as the first option in question 1, they also saw "Extremely dishonest/illegitimate/unfair" first for these questions.

- A lot
- A great deal

The following questions will ask about your opinion of **how most US-born Black Americans** would perceive {NAME}.

22. In your opinion, how do you think **most U.S.-born Black Americans** would describe {NAME}'s race/ethnicity? {select only one option / select one or more options}.

- White
- Black or African American
- Asian
- American Indian or Alaska Native
- Native Hawaiian or Other Pacific Islander
- Hispanic/Latino
- Some Other Race

23. How negative or positive do you think **most U.S.-born Black Americans** would feel about {NAME}'s decision to identify as Black/African-American {on the government census / for a college scholarship intended for Black/African-American students}?

- Extremely negative
- Somewhat negative
- Slightly negative
- Equally positive and negative
- Slightly positive
- Somewhat positive
- Extremely positive

24. In your opinion, how honest **would most US-born Black Americans** find {NAME}'s decision to identify as Black/African-American?

- Extremely dishonest
- Somewhat dishonest
- Neither dishonest nor honest
- Somewhat honest
- Extremely honest

25. In your opinion, how legitimate **would most US-born Black Americans** find {NAME}'s decision to identify as Black/African-American?

- Extremely illegitimate
- Somewhat illegitimate
- Neither illegitimate nor legitimate

- Somewhat legitimate
- Extremely legitimate

26. In your opinion, how fair **would most US-born Black Americans** find {NAME}'s decision to identify as Black/African-American?

- Extremely unfair
- Somewhat unfair
- Neither unfair nor fair
- Somewhat fair
- Extremely fair

27. In your opinion, how much shared cultural heritage, background, and experience would most **US-born Black Americans** believe that {NAME} has in common with the Black/African-American community?

- None
- A little
- A moderate amount
- A lot
- A great deal

28. In your opinion, how much discrimination would **most US-born Black Americans** believe that {NAME} has faced on the basis of his/her race/ethnicity?

- None
- A little
- A moderate amount
- A lot
- A great deal

The following questions will ask about your opinion of how **most U.S.-born White Americans** would perceive {NAME}.

29. In your opinion, how do you think **most U.S.-born White Americans** would describe {NAME}'s race/ethnicity? {select only one option / select one or more options}.

- White
- Black or African American
- Asian
- American Indian or Alaska Native
- Native Hawaiian or Other Pacific Islander
- Hispanic/Latino
- Some Other Race

30. How negative or positive do you think **most U.S.-born White Americans** would feel about {NAME}'s decision to identify as Black/African-American {on the government census / for a college scholarship intended for Black/African-American students}?
- Extremely negative
  - Somewhat negative
  - Slightly negative
  - Equally positive and negative
  - Slightly positive
  - Somewhat positive
  - Extremely positive
31. In your opinion, how honest would **most U.S.-born White Americans** find {NAME}'s decision to identify as Black/African-American?
- Extremely dishonest
  - Somewhat dishonest
  - Neither dishonest nor honest
  - Somewhat honest
  - Extremely honest
32. In your opinion, how legitimate would **most U.S.-born White Americans** find {NAME}'s decision to identify as Black/African-American?
- Extremely illegitimate
  - Somewhat illegitimate
  - Neither illegitimate nor legitimate
  - Somewhat legitimate
  - Extremely legitimate
33. In your opinion, how fair would **most U.S.-born White Americans** find {NAME}'s decision to identify as Black/African-American?
- Extremely unfair
  - Somewhat unfair
  - Neither unfair nor fair
  - Somewhat fair
  - Extremely fair
34. In your opinion, how much shared cultural heritage, background, and experience would most **US-born White Americans** believe that {NAME} has in common with the Black/African-American community?
- None
  - A little
  - A moderate amount

- A lot
- A great deal

35. In your opinion, how much discrimination would **most US-born White Americans** believe that {NAME} has faced on the basis of his/her race/ethnicity?

- None
- A little
- A moderate amount
- A lot
- A great deal

## IMAGES

A



B



C



D



*Notes:* Images were drawn from the Chicago Face Database (Ma, Correll, and Wittenbrink 2015; Ma, Kantner, and Wittenbrink 2021). The authors were granted permission to reproduce the above images for illustration purposes. This permission was granted under a Creative Commons Attribution 4.0 (CC BY 4.0) license. Per restrictions from the Chicago Face Database, only four of the six images used in this experiment could be reproduced in this appendix. In addition to the four example images above (files CFD-MF-309-002, CFD-WM-250-157, CFD-MF-337-026, and CFD-MM-308-001), we also included files CFD-MF-305-014 and CFD-BM-204-003 in our experiment.

*Source:* Ma, Correll, & Wittenbrink (2015). The Chicago Face Database: A Free Stimulus Set of Faces and Norming Data. *Behavior Research Methods*, 47, 1122-1135.