

The Social Construction of Race: Biracial Identity and Vulnerability to Stereotypes

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Multiracial individuals are more likely to have a heightened awareness of race as a social construct than monoracial individuals. This article examines the impact that a heightened awareness of race as a social construct has on the relationship between racial stereotypes and performance. Study 1 finds that multiracial individuals reported subscribing less to the notion that race biologically determines ability. Study 2 finds that monoracial individuals show stereotype activation, whereas multiracial individuals show stereotype inhibition in reaction to race salience. Study 3 draws on the work on stereotypes and performance to test the susceptibility of multiracial individuals to racial stereotypes about ability. The authors find that Asian/White and Black/White multiracial individuals were less susceptible to racial stereotypes than monoracial individuals. Whereas monoracial participants showed significant performance changes in reaction to race salience, multiracial individuals did not. Study 4 finds that emphasizing the social construction of race buffers individuals from stereotype threat effects.

Keywords: stereotype threat, biracial identity, race, stereotypes, academic performance

Multiracial individuals challenge society's traditional notions and assumptions about race because they cannot be easily placed into any of society's preexisting racial categories (Spickard, 1992). As a result, multiracial individuals face many unique challenges that monoracial individuals do not face while navigating their social world. For instance, because multiracial individuals cannot be easily classified in either the monoracial majority or monoracial minority groups, they face rejection from both majority groups and minority groups in society (Root, 1992). In addition, because multiracial individuals do not easily fit into any preexisting racial categories, a great deal of attention and controversy surrounds how multiracial individuals define themselves. For instance, multiracial groups have argued for the recognition of a multiracial category (Gaskins, 1999). On the other hand, prominent civil rights activ-

ists, such as Jesse Jackson and Kweisi Mfume, argued against the creation of a separate multiracial category to preserve minority numbers and maintain political influence (Rockquemore & Brunsma, 2002).

Because society provides multiracial individuals with no easy answers about where they belong in terms of racial communities, multiracial individuals have been forced to come up with these answers on their own. Thus, they have to grapple with questions surrounding race that many monoracial individuals, both from majority and minority groups, have had answered for them by society. For instance, one issue that multiracial individuals often contend with is trying to uncover the basis of racial categories, in order to understand why it is that existing racial categories in our society do no account for them. During these deliberations, many multiracial individuals come to realize that racial categories are arbitrary, subjective, and ultimately meaningless in any biological sense. In other words, multiracial individuals come to the realization that race is a social construction (Spickard, 1992). Race does not exist outside of our social world. A young woman of Puerto Rican and African American descent writes: "I've come to the realization that race does not exist—it's a social construct. These racial categories were constructed totally for economic, political and social reasons; they're not based on anything, especially anything scientific or biological" (Gaskins, 1999, p. 54).

Scholars have written extensively on race as a social construction (e.g., Gaskins, 1999; Harris & Sim, 2002; Rockquemore & Brunsma, 2002; Spickard, 1992; Zack, 1995). This body of work asserts that although race plays a great role in our social world in terms of defining people's experiences and opportunities, racial categories have no biological basis (Goodman, 2000; Zack, 1995).

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This article was supported in part by a grant from the John Templeton Foundation. Diana Sanchez was supported by the Ford Foundation during the writing of this manuscript. The authors thank Elsie Wang, Stephanie Kao, Matthew Basigkow, Jo Sasota, and Alissa Ginsberg for help with data collection. The authors also thank Phillip Akutsu, Lilach Sagiv, Lance Sandelands, Adam Grant, Catherine Fabian, and John Paul Stephens for helpful comments on earlier drafts of this paper. The opinions expressed in this report are those of the author(s) and do not necessarily reflect the views of the John Templeton Foundation.

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In support of this position, scholars point to the fact that there is greater variance in terms of traits and abilities within racial groups than between racial groups (Harris & Sim, 2002). There is no single characteristic that belongs exclusively to individuals in one racial group and not to any individuals in another racial group (Zack, 1995). Scientists have found that race cannot account for genetic variation falsifying the argument that biology is the basis of race (Goodman, 2000). Thus, while the myth that race is biologically based is prevalent in society, determining traits and abilities, there is no evidence to support this notion. Rockquemore and Brunson (2002) write "racial identity is malleable, rooted in both macro and micro social processes, and that it has structurally and culturally defined parameters" (p. 115).

We propose that a heightened awareness of race as social construction among multiracial individuals arises from the unique experiences multiracial individuals often encounter during their upbringing. These experiences are ones that multiracial individuals can bring into consideration when they are grappling with issues surrounding their racial identity. Many of these experiences lead multiracial individuals to question many of society's messages about racial differences. For instance, many of the experiences multiracial individuals encounter in their homes directly contradict the messages society sends about barriers between racial groups and the inescapable and inevitable nature of racial conflicts (Nakashima, 1992). Multiracial individuals are often raised in settings where individuals from different racial backgrounds co-exist peacefully. Moreover, many parents of multiracial children de-emphasize the importance of race as a means of social categorization. Instead, parents emphasize a transcendent identity (i.e., human being) and reject the use of race as a way to divide people (Wardle, 1987).

Second, we propose that the emphasis of race as a social construction and the de-emphasis of the biological basis of race may diminish the impact of race-based stereotypes. Believing that race is a social construction allows individuals, including multiracial individuals, to undermine the supposed validity of many race-based stereotypes. Thus, believing that racial categories have no biological basis allows individuals to disregard stereotypes that claim innate differences in traits or abilities among people belonging to different racial groups. Thus, undermining the biological basis of racial categories demolishes the foundation upon which many race-based stereotypes rest.

Previous research found that attitudes toward one's stereotyped identity moderate the effect of stereotypes. Much research shows that level of identification with an identity moderates the strength of the impact that stereotypes have on behavior. For example, work on stereotype threat finds that negative stereotypes hurt the performance of individual group members (e.g., Steele & Aronson, 1995). More recently, researchers found that stereotype threat effects were moderated by the strength of an individual's identification with the stereotyped identity. Women who were not closely identified to their female identity did not underperform on a math test, whereas women closely identified with their female identity did (Schmader, 2002).

Individuals who view race as a social construction may believe race to be less informative about an individual's innate characteristics and traits and may be more likely to identify less strongly with their racial identity. However, disidentification and viewing race as a social construction, although likely to be closely related,

are not the same construct. One can disidentify from an identity without believing that the identity is a social construction and vice versa. For instance, a woman may disidentify with her gender, but at the same time still believe that gender categories have a biological basis. Conversely, an African American man can believe that race is a social construction but still identify strongly with his race because he recognizes that his race impacts his experiences in the social world. Thus, rejecting the biological basis of race could lessen one's identification with the stereotyped identity, as well as lessen the impact of racial stereotypes.

In this article, we test these two proposals: (1) that multiracial individuals are more likely to emphasize the social construction of race and (2) that this emphasis reduces vulnerability to racial stereotypes. We report the results of four studies examining the beliefs that multiracial individuals hold toward race-based stereotypes about ability and the impact that race-based stereotypes and race salience have on academic performance. We draw upon the work on stereotype threat and stereotype susceptibility to test these proposals.

Study 1 investigates the attitudes and beliefs that multiracial individuals hold regarding race. We predict that multiracial individuals will subscribe less to the belief that race biologically determines individuals' characteristics and abilities. In Study 2, we explore stereotype activation in multiracial and monoracial individuals. We predict that multiracial individuals would suppress stereotypes associated with racial categories, because multiracial individuals are more likely to reject the biological validity of race and the notion of innate differences between racial groups. Study 3 builds on the first two studies and examines the vulnerability of multiracial individuals to race-based stereotypes about ability. We propose that multiracial individuals, who reject the biological basis of race and its implications for innate differences in ability, should be less vulnerable to the negative effects of race-based stereotypes about ability than monoracial individuals. Finally, Study 4 examines the effects of heightening the awareness of race as a social construct and stereotype threat. We predict that advocating the perspective that race was biologically determined would predict greater stereotype threat than advocating the race as a social construction perspective. Moreover, we predict that this perspective cannot only buffer multiracial individuals, but also monoracial individuals.

Study 1

Study 1 surveys the beliefs that multiracial and monoracial individuals hold toward issues surrounding race. We predict that multiracial participants are more likely than monoracial participants to de-emphasize race. We predict that this de-emphasis will be reflected in their self-reported attitudes toward issues surrounding race. For example, we predict that multiracial participants would report more comfort in developing intimate relationships with people of different races and that they would subscribe less to the belief that race biologically determines personality and ability.

Method

Participants. A total of 31 multiracial (10 Latino/White, 8 Black/White, 6 Asian/White, 1 Black/Asian, 9 mixed nonspeci-

fied), 44 monoracial White, and 30 monoracial Minority¹ (1 Latino, 10 Black, 19 Asian) participants took part in the study in exchange for course credit. Participants were coded as multiracial if they reported that their parents came from different racial backgrounds. There were 52 men and 59 women in the sample.² Participants' ages ranged from 18 to 28, with the mean age being 19.3.

Procedure. Participants were run in groups of 3 to 5. The groups were racially mixed consisting of both multiracial and monoracial participants. When participants arrived, they were asked to fill out a survey asking them to rate their agreement with the following items on a scale of -3 (*not true at all*) to 3 (*very true*): (1) My parents de-emphasize race; (2) Race exists only as a social construct; (3) I would not be willing to adopt a child who does not belong to my racial group(s) (r); (4) Race biologically determines people's personalities and abilities (r); (5). Society overemphasizes race as a way of categorizing people; (6) It is important to me to have friends from different racial backgrounds; (7) Attending multicultural events is not important to me (r); (8) It is important to me to educate myself and others about diverse social groups. They also rated the following item indicating their level of comfort on a scale of -3 (*very uncomfortable*) to 3 (*very comfortable*) in the following situation: Ten years from now, marrying someone who belongs to a different racial group(s). The items marked by an "(r)" were reverse coded in our analyses. When participants were finished filling out the survey, they were thanked and debriefed.

Results

To avoid working with negative numbers, we recoded participants' responses from the -3 to 3 scale to a 1 to 7 scale. Because we had only 1 monoracial Latino participant, we decided to leave the 10 Latino/White and 1 monoracial Latino participants out of our analyses. This left us with 21 multiracial participants and 28 monoracial minority participants.

Data reduction: Principal components analysis. To reduce the number of items and form composite variables, we conducted a principal-components analysis. The analysis revealed 5 interpretable components accounting for 79% of the variance. The first component variable, which we called *interracial comfort*, measured comfort in intimate interracial relationships. This variable consisted of the following two items: (1) I would not be willing to adopt a child who does not belong to my racial group(s) (r); (2) Ten years from now, marrying someone who belongs to a different racial group(s), $\alpha = 0.59$. The second variable, which we called *importance of diversity*, measured the participant's self-reported statement of the importance of maintaining diversity in their lives. This variable consisted of the following three items: (1) It is important to me to have friends from different racial backgrounds; (2) Attending multicultural events is not important to me (r); (3) It is important to me to educate myself and others about diverse social groups, $\alpha = 0.71$. The third variable, *overemphasis of race*, measured participant's agreement with the overemphasis placed on race in society. This variable consisted of the following two items: (1) Society overemphasizes race as a way of categorizing people; (2) Race exists only as a social construct, $\alpha = 0.68$. Finally, the items "Race biologically determines people's personalities and

abilities (r)" and "My parents de-emphasize race," loaded onto their own factors, making them the fourth and fifth variable.

Differences in responses between multiracial and monoracial participants. We conducted a multivariate analysis of variance comparing self-reported answers to each of these five component variables among multiracial, monoracial White, and monoracial minority participants. We found a significant difference in the degree to which multiracial and monoracial participants reported that their parents de-emphasized race, $F(2, 89) = 4.853, p = .01$. Multiracial participants reported that their parents de-emphasized race significantly more ($M = 4.71$) than monoracial White participants ($M = 3.91$), $t(89) = 1.79, p = .04, r = 0.19$, and monoracial minority participants ($M = 3.21$), $t(89) = 3.11, p = .001, r = 0.31$. The difference between monoracial White participants and monoracial minority participants was marginally significant, $t(89) = 1.54, p = .06, r = 0.16$.

We also found a significant difference in the degree to which multiracial and monoracial participants reported feelings of comfort in interracial intimacy, $F(2, 89) = 3.83, p = .03$. Multiracial participants reported that they would be significantly more comfortable in developing close interracial relationships ($M = 6.071$) than monoracial minority participants ($M = 5.03$), $t(89) = 2.77, p = .003, r = 0.17$. The difference between multiracial participants and monoracial White participants ($M = 5.50$) was marginally significant, $t(89) = 1.46, p = .07, r = 0.15$, as was the difference between monoracial White and monoracial minority participants, $t(89) = 1.48, p = .06, r = 0.17$.

Finally, we found that the differences in the degree to which multiracial participants and monoracial participants reported believing that race biologically determines personality and ability was marginally significant, $F(2, 89) = 2.85, p = .06$. Focused contrasts revealed that multiracial participants disagreed with this statement more strongly ($M = 6.62$) than both monoracial White participants ($M = 5.79$), $t(89) = 2.02, p = .02, r = 0.20$, and monoracial minority participants ($M = 2.42$), $t(89) = 2.25, p = .01, r = 0.23$. The difference between monoracial White and monoracial minorities was not significant, $t(89) < 1$.³

We did not find any significant differences between multiracial and monoracial participants' ratings of the importance to diversity

¹ One participant did not report his or her gender.

² In this article, we combined all of the monoracial minority groups because we were interested distinguishing whether the effects we were observing among the multiracial individuals were because of their multiracial background or their minority status. If we found differences between multiracial participants and minority participants, this would provide some evidence to suggest that the effects we were observing among multiracial participants were because of their multiracial background rather than their minority status. Although finding a difference between multiracial individuals and a specific group (e.g., Asian or Black) would be informative in other ways, it would be a little bit less informative with regards to general effects of minority status, because minority status would be confounded with racial group. However, it is likely that differences among the different monoracial minority groups do exist and that the unique experiences of each minority group could lead differences among them. Examining the effects of these differences and comparing them with the experiences of multiracial individuals more closely would be worthwhile to pursue in future research.

³ We found no significant differences among the monoracial minority groups in their ratings of agreement with the statement that "race biolog-

or the overemphasis on race in society. However, this lack of findings may be attributable to social desirability creating a ceiling effect. The means of these two composites were very high, and there was little variance in the answers.

In sum, these results suggest that the multiracial participants saw race as less of a barrier among people than monoracial participants. Multiracial participants reported feeling more comfortable developing intimate relationships, such as adopting a child or embarking on a marriage with a person of a different racial background. They also reported that their parents de-emphasized race more than monoracial participants. Finally, they reported less belief in the idea that race could biologically determine personality or ability.

Study 2

The goal of Study 2 was to examine how these differences in orientations toward race may translate into differences between multiracial and monoracial individuals in their reaction to race salience in terms of racial stereotype activation. Past research found that chronic goals could impact the implicit reactions that individuals have to primes. Moskowitz, Gollwitzer, Wasel, and Schaal (1999) found that individuals with chronic egalitarian goals pre-consciously inhibited stereotype activation. Because multiracial individuals are more likely to believe that racial stereotypes are unwarranted and that there are no biological bases to these stereotypes, we predict that they should show an analogous effect and suppress racial stereotypes in reaction to race salience primes. Following this line of reasoning, we predicted that monoracial participants should show stereotype activation in reaction to race salience, but multiracial individuals should show stereotype inhibition.

In this study, we used a lexical-decision task to measure stereotype activation. Participants who have the stereotype activated should be faster at responding to stereotypical words, while stereotype suppression should elicit slower responses to stereotypical words (e.g., Moskowitz et al., 1999; Zaraté & Smith, 1990). Therefore, we hypothesized that monoracial participants would show stereotype activation and faster response times in reaction to race salience, but multiracial participants should show stereotype inhibition and slower response times.

Method

Participants. A total of 30 Asian Americans, 18 Asian/White biracial participants, and 29 White participants took part in the experiment in exchange for monetary compensation. They were selected on the basis of their answers in a demographic questionnaire that they filled out earlier in the semester and were invited to participate in the study via e-mail or telephone.

Lexical-decision task. Participants were seated in front of an IBM computer. The lexical-decision task was programmed by using Superlab Pro (Version 2.0). Participants were told that their task was to determine whether or not the word shown on the screen was a word and to indicate their decision by pressing the "b" or "n" key. Ten of the words shown to the participants were actual words, whereas the other 10 were just a string of letters matched with the real words for length. Half of the actual words were Asian-stereotypical words (polite, smart, wok, Asia, quiet), whereas the other half were neutral words (day, that, alert, something, cheery).

The words were presented on the center of the screen in white, Times 12-point font. The words stayed on the screen until the participants indicated their decision. Participants' accuracy and reaction time were recorded.

Procedure. Participants were run individually. When they arrived for the study, they were asked to fill out one of two manipulation questionnaires designed either to make race salient or not. Upon arrival, participants completed a brief "demographic questionnaire," asking about their age, major, year in school, and recreational habits (e.g., how often they watched television). Participants in the race salience identity condition also answered questions regarding their race and ethnicity. They were asked to indicate how much food from their ethnic background was a part of their upbringing, their racial identification(s), and the racial identification of each of their parents. We chose to have participants indicate their parents' racial identification to ensure that both of their parental racial identities, as well as their biracial identity, would be equally salient. Thus, if participants naturally gravitated toward one identity over another, it would not be because one identity was emphasized to a greater degree in the demographic questionnaire. Participants in the race not salient condition were not asked these extra questions.

After participants completed the questionnaires, they were asked to sit in front of the computer and to complete the lexical-decision task. When participants completed the task, they were thanked and debriefed.

Results

Our main dependent measure was the mean of the log of the reaction times for Asian words. We logged each of the individual reaction times and then took the mean because the distribution was skewed. The mean of the log reaction times for neutral words provided us with a baseline measure of how fast each individual reacts, which we covaried out in accordance with standard treatment of reaction times (Bargh, Chaiken, Raymond, & Hymes, 1996). Trials in which judgments were incorrect were dropped from these analyses. The overall accuracy was 88%.

As expected, a 3 (race: Asian, Asian/White, White) \times 2 (condition: race salient vs. race not salient) analysis of covariance, covarying out the mean reaction time for the neutral words, revealed a main effect for group, $F(2, 70) = 3.88, p < .03$. Monoracial Asians participants were significantly faster than Asian/White and monoracial White participants at reacting to stereotypical words (Asian: $M = 644$; Asian/White: $M = 752$; White: $M = 998$). This finding is not surprising, because Asian stereotypes are self-relevant to monoracial Asian participants and, therefore, should be more accessible to these participants. However, we also found a significant participant race by race salience condition interaction, $F(2, 70) = 3.70, p < .03$, in which making race salient made monoracial Asians participants faster at judging Asian words (race not salient: $M = 751$ ms; race salient: $M = 589$ ms), $t(70) = 1.85, p = .03, r = 0.22$, but made Asian/White biracial participants slower at judging Asian words relative to neutral

ically determines personality and ability," $F(1, 26) = 1.46, p > .20$), ratings of comfort in intimate interracial relationships, $F(1, 26) = 1.12, p > .25$, ratings of the importance of diversity ($F < 1$), ratings of the overemphasis on race in society, $F(1, 26) = 1.70, p > .20$, or ratings that their parents de-emphasized race ($F < 1$).

words (race not salient: $M = 958$ ms; race salient: $M = 696$ ms), $t(70) = 2.15$, $p = .01$, $r = 0.36$. White participants showed no difference in reaction to race salience, because the racial identity made salient for the White participants using our manipulation would be White identity (race not salient: $M = 1183$ ms; race salient: $M = 980$ ms), $t(70) \leq 1$.

Thus, we find that Asian/White participants are reacting to the race salience manipulation. However, unlike monoracial Asian participants, who show stereotype activation and faster reaction times, Asian/White participants seem to be suppressing racial stereotypes, which accounts for their slower reaction times. This finding supports our proposal that multiracial Asian/White participants preconsciously suppress racial stereotypes in reaction to race salience. This suppression may reflect their chronic tendency toward de-emphasizing the biological bases of race and racial stereotypes. It is interesting to note that despite having positive stereotypes associated with both of their component races, Asian/White participants still suppressed Asian stereotypes when race was made salient.

One limitation of our study was that we only studied Asian and Asian/White participants. As a result, we have no data that could speak to whether our proposals could likely be applied to other racial minority groups. We address this issue in the next study by including Black/White and monoracial Black participants in the following study. We also build on Study 2, by examining the impact of race salience and stereotypes on a behavioral measure, specifically performance.

Study 3

A great deal of research exists to show that activating stereotypes affects performance in the direction predicted by the stereotypes. For example, in a groundbreaking study, Steele and Aronson (1995) found that the stereotype "African Americans are poor students" hurt the academic performance of African American students whose racial identity had been subtly made salient. More recently, research has shown that stereotypes can also boost performance. Shih, Pittinsky, and Ambady (1999) found that Asian American women performed better on a math task when their Asian identity, an identity associated with positive math stereotypes, was made salient. College students performed better on a general knowledge exam when they were primed with the social category of college professors (Dijksterhuis & Van Knippenberg, 1998) and non-Asian individuals showed improved math performance when they were exposed to subliminal Asian primes (Shih, Ambady, Richeson, Fujita, & Gray, 2002). Thus, a great deal of evidence exists documenting that stereotypes impact performance.

In Study 3, we draw on the work on stereotypes and performance to test our hypothesis that multiracial individuals are less affected by racial stereotypes than monoracial individuals. In this study, we examine the impact of race salience on the test performance of monoracial White, Black, Asian and multiracial Black/White and Asian/White participants. The predictions we made for the monoracial participants were quite straightforward and based on previous research. Based on the work on stereotype lift, we predicted that monoracial White participants would show a boost in performance in reaction to race salience (Walton & Cohen, 2003). Based on the work on stereotype performance boosts, we predicted that monoracial Asian participants would also show a

boost in performance in reaction to race salience (Shih et al., 1999). Based on the work on stereotype threat, we predicted that monoracial Black participants would show a decline in performance in reaction to race salience.

However, for the multiracial participants, it was less clear what we could predict. Based on our proposal that multiracial participants emphasize race as a social construction and in light of our findings that multiracial participants suppress stereotypes in reaction to race salience, we predicted that both Asian/White and Black/White participants would be less affected by race salience compared to the monoracial participants. This pattern of results would support our proposal. However, it is also conceivable that Asian/White participants would show a boost in performance, because both of their component identities are associated with predictions of higher performance, and Black/White participants could show decreased performance if race salience activates Black identity, or increased performance if race salience activates White identity. This pattern of results would not support our proposals.

Method

Participants. A total of 60 monoracial White, 70 Asian/White, 27 Black/White, 29 monoracial Black, and 55 monoracial Asian participants took part in the study in exchange for monetary compensation. We excluded participants who did not identify English as their first language. This left us with 60 monoracial White, 65 Asian/White, 24 Black/White, 28 monoracial Black, and 40 monoracial Asian participants in the final analyses.

Design. The study consists of a 5 (participant race: Asian/White, Black/White, monoracial White, monoracial Asian, and monoracial Black) \times 2 (condition: race salient vs. race not salient) factorial design.

Procedure. Before their arrival, participants were assigned randomly to one of the two experimental conditions: race salient or race not salient. These were exactly the same questionnaires as the ones used in Study 2. Once participants completed the demographic questionnaire, they were instructed to complete a 20-minute quantitative test (Shih et al., 1999). After the allotted time, participants were asked to complete a final questionnaire regarding demographic information and their math SAT scores.

Results

Our main dependent measure was performance accuracy, which was calculated to be the number of questions correct divided by the number of questions attempted (Shih et al., 1999; Steele & Aronson, 1995). Consistent with previous research (e.g., Steele & Aronson, 1995), our analyses controlled for differences in participant's math performance on the SAT. The analysis of covariance revealed no significant main effects for race salience or participant race. However, we did find a significant interaction effect between participant race and condition, $F(4, 208) = 2.58$, $p = .038$. Recall that we predicted that monoracial participants would be much more susceptible to the race salience manipulation than multiracial participants. Consistent with the positive stereotype performance boost research (e.g., Shih et al., 1999), focused tests revealed that the monoracial Asian participants showed a significant boost in their performance when their Asian identity was made salient ($M = 0.74$) compared to the condition in which their race was not

salient ($M = 0.63$), $t(208) = 1.94$, $p = .026$, $r = 0.13$. Consistent with the stereotype lift research (Walton & Cohen, 2003), monoracial White participants also showed a significant boost in performance when race was made salient ($M = 0.66$) compared to the condition when race was not made salient ($M = 0.56$), $t(208) = 2.37$, $p < .01$, $r = 0.16$. The monoracial Black, Asian/White, and Black/White participants did not show a significant change in their performance in reaction to race salience. Table 1 reports the means and standard deviations for each of the conditions.

Thus, the results of this study suggest that race salience impacts multiracial individuals to a lesser degree than monoracial Asian or monoracial White participants. Surprisingly, in light of the research conducted on stereotype threat, monoracial Black participants in our study did not show a significant decline in their performance even though the means fell in the right direction. It is possible the lack of significance may be because of a lack of power. Perhaps if the sample size were larger, the difference could reach significance. These reasons could also be applied to explain the findings among the multiracial participants. It is interesting to note that although Asian/White participants have two component identities associated with higher performance, we found that Asian/White participants did not react to race salience in stereotype consistent manner and, instead, seemed to be showing the opposite trends in reaction to race salience.

Taken together with the findings of the previous studies, we see that multiracial participants are more likely to emphasize the social construction of race to a greater degree and are less affected by stereotypes when race is made salient. What these previous studies do not show, however, is a causal link between emphasizing race as a social construction and its impact of stereotypes on performance outcomes.

Study 4

Study 4 tests the causal relationship between emphasizing race as a social construction and susceptibility to stereotype threat. In addition, we test the proposal that heightening awareness of the social construction of race buffers all individuals, not just multiracial individuals, from stereotype threat. Although multiracial individuals are more likely to naturally fall upon a heightened awareness of race as social construction in response to the unique experiences they encounter, anybody, including monoracial individuals, if challenged to consider the source of racial stereotypes, can develop a heightened awareness of race as a social construction and be buffered from the negative effects of stereotype threat. Thus, in Study 4, we test two proposals: (1) that emphasizing the social construction of race protects individuals from stereotype

threat and (2) this protective process is not exclusive to multiracial individuals.

We manipulated individuals' degree of agreement with the proposition that race was socially constructed and tested its effects on individuals' vulnerability to stereotype threat. We predicted that individuals who agreed with the proposition that race was a social construction would be buffered from stereotype threat effects, whereas participants who disagreed would show stereotype threat effects.

Our stereotype threat manipulation was based upon the manipulation used by Aronson et al. (1999). They induced stereotype threat by activating social comparison processes, exposing White participants to positive stereotypes about Asians and math ability. Thus, in this study, we induced stereotype threat by having non-Asian participants explicitly think about the biological basis of racial categories and exposing them to Asian stereotypical words. We predicted non-Asian participants would feel threatened and show a decline in their performance on a math test. On the other hand, heightening the awareness of race as a social construction might inoculate participants to stereotype threat and instead elicit ideomotor stereotype boost effects (e.g., Dijksterhuis & Van Knippenberg, 1998; Shih et al., 2002).

Participants

A total of 129 non-Asian participants (117 White, 3 Latino, 9 Black) took part in this study in exchange for course credit compensation.

Design

The study consists of a 2 (prime: Asian prime vs. neutral prime) \times 3 (level of agreement: agree, aware, or disagree with race as a social construction) factorial design.

Procedure

Participants individually in this study. Upon arrival, participants were asked to read the following paragraph about race as a social construction.

It's Not in Our Genes: The Social Construction of Race

Because there is no scientific or biological basis for the notion of race, many have pointed out that race is socially constructed. Historically, notions of race were imposed on our society because they served a political or economic purpose. In some cases, race was used to create class separations between individuals based on skin color. At other

Table 1
Study 3: Performance by Condition and Participant Race

Race salience conditions	Asian	White	Black	Asian/White	Black/White
Race salient	$M = 0.74^a$ $SD = 0.19$	$M = 0.66^b$ $SD = 0.18$	$M = 0.67^b$ $SD = 0.24$	$M = 0.63^b$ $SD = 0.19$	$M = 0.62^b$ $SD = 0.11$
Race not salient	$M = 0.63^b$ $SD = 0.19$	$M = 0.56^c$ $SD = 0.20$	$M = 0.72^{ab}$ $SD = 0.20$	$M = 0.69^b$ $SD = 0.23$	$M = 0.65^b$ $SD = 0.24$

Note. Mean values that share the same superscript are not significantly different from one another at the $p < .05$ level.

times, race was constructed to justify the mistreatment of others for personal gain. Today, many individuals acknowledge that race is socially constructed and that real biological races do not exist. Racial categorization is a tool for society to create groups on the basis of certain selected anatomical features (e.g., skin color, facial features) even though these features are arbitrary, ambiguous, and illogical. This is not to say that race is unimportant but rather to stress that the importance of race is a result of social interactions. It's not in our genes. An individual of color is not genetically different in ability from individuals who are white even though many individuals buy into this notion. The importance of race is not related to biological differences between individuals but is purely something that society has created. In fact, far too many individuals often falsely believe that race does connote genetic differences or distinct biological make-up when in fact, nothing could be farther from the truth.

Participants in the agree condition were asked to write a short paragraph with arguments in agreement with the position that race was a social construction. Participants in the aware condition were simply asked to read the paragraph and to circle nouns and underline verbs. Participants in the contradict condition were asked to write a paragraph in disagreement with race as a social construction.

Participants then completed a computer task in which they were asked to indicate whether the word appearing on the computer screen appeared on the left or the right half of the screen for 1000 milliseconds (see Shih et al., 2002). Participants in the Asian prime condition saw Asian words (e.g., Chinatown, chopsticks), whereas participants in the neutral condition saw neutral words (e.g., water). Participants were aware of and primed with the Asian stereotypical words. Once participants had completed the computer task, they were instructed to complete the same 20-minute quantitative test as used in Study 2. After the allotted time, participants were asked to complete a demographic questionnaire.

Results

A 2×3 analysis of covariance using accuracy as the main dependent variable supported our predictions. We found no main effects for awareness or prime, but we did find a significant interaction effect between prime and level of agreement, $F(2, 122) = 3.91, p < .05$. Specifically, we found that participants asked to argue for the position that race was biologically based and against the position that race was a social construction showed the stereotype threat effect. Thus, participants in the disagree position showed significantly lower performance in the Asian prime condition ($M = 0.37$) than did participants in the no prime condition ($M = 0.47$), $t(122) = 1.71, p < .05, r = 0.15$. In contrast, participants in the aware condition showed significantly higher

performance in the Asian prime condition (aware: $M = 0.53$; agree: $M = 0.54$) than in the no prime conditions ($M = 0.38$), $t(122) = 2.60, p < .01, r = 0.23$. Finally, participants in the agree condition did not show a significant increase in the Asian identity salient condition ($M = 0.53$) compared to participants in the no prime condition ($M = 0.46$), $t(122) = 1.22, p = .11$. Table 2 reports the means and standard deviations for all the conditions.

Thus, in this study, we find direct evidence that de-emphasizing the biological basis and emphasizing the social construction of race reduces stereotype threat susceptibility. Exposing participants to Asian words threatened participants who argued for the biological basis of race but did not seem to threaten the participants who were made aware of and who argued for the social construction of race.

Discussion

In this article, we find evidence that beliefs about the basis of racial differences impact the responses that individuals have toward race salience. Specifically, in this article we found that multiracial participants subscribed less to the notion that racial differences were biologically based, were more likely inhibit stereotypes in response to race salience, and were less affected by race-based stereotypes than were monoracial participants. We also found direct evidence that emphasizing race as a social construction buffers individuals from stereotype threat effects.

In short, emphasizing the social construction of race may lead multiracial individuals to buy into racial stereotypes less. Our findings of differences in beliefs and attitudes about race among multiracial participants, monoracial majority (White), and monoracial minority participants suggest that early experiences associated with race can shape one's beliefs about race. In other words, unique individual experiences associated with one's racial identity can shape one's opinions and beliefs about where racial differences come from. Moreover, our results suggest that these orientations are chronic and may automatically impact one's reactions to their social environment. In Study 2, we found that although monoracial participants activated racial stereotypes, multiracial individuals preconscious inhibited racial stereotypes in response to race salience. These results are consistent with previous research that found that chronic goals impact people's preconscious reactions to their environment (Moskowitz et al., 1999).

The results of these studies provide insights into some possible mechanisms that multiracial individuals may use to protect themselves from threats in their social environment, such as discrimination and rejection. Although traditional work on multiracial individuals proposes that multiracial individuals suffer poor psy-

Table 2
Study 4: Performance by Condition

Asian prime condition	Aware of race as a social construct	Agree with race as a social construct	Disagree with race as a social construct
Asian prime	$M = 0.53^a$ $SD = 0.19$	$M = 0.54^a$ $SD = 0.18$	$M = 0.37^b$ $SD = 0.18$
No prime	$M = 0.38^b$ $SD = 0.15$	$M = 0.45^a$ $SD = 0.22$	$M = 0.46^a$ $SD = 0.20$

Note. Mean values that share the same superscript are not significantly different from one another at the $p < .05$ level.

chological adjustment outcomes because they frequently encounter discrimination and do not have a stable racial identity, a review of the empirical work finds that multiracial individuals are faring better than traditional theories of multiracial identity propose (Shih & Sanchez, *in press*). The results of these studies suggest that multiracial individuals de-emphasize the biological bases of race, and this de-emphasis may protect them from the harmful effects of racial stereotypes. For instance, negative racial stereotypes increase anxiety in test-taking situations by raising the possibility that others might view them incompetently or that a stereotype may be true. This anxiety leads to stereotype threat. Believing that race is a social construction might reduce the anxiety associated with the second possibility thus reducing stereotype threat. Identifying such processes can help us to understand the resources at people's disposal that allow them to develop resilience in confronting challenges and hardships in their social environment.

The results of our studies might also provide us with some insights into how multiracial individuals conceive of their multiracial identity. Work on bicultural individuals found that bicultural individuals who conceive of their component cultural identities as incompatible exhibited contrast effects to cultural primes, whereas those who conceive of their cultural identities as compatible showed assimilation effects (Benet-Martinez, Leu, Lee, & Morris, 2002). In Study 2, we found that multiracial participants showed stereotype suppression in reaction to race primes, suggesting that they are less likely to be assimilating to the stereotypes being activated. In addition to reflecting chronic goals of de-emphasizing racial stereotypes, this suppression might also reflect the struggle that multiracial individuals may be having in trying to understand the role that race plays in their lives and to reconcile their multiple racial identities.

Although these four studies provide converging evidence in support of our theoretical proposals, a number of questions still remain. First, it is possible that multiracial participants were not showing differences in performance because there are no free-standing stereotypes about multiracial individuals and math ability and the multiracial participants in our sample were identifying themselves as multiracial. Although this is a possibility, we think that it is not a likely possibility because research on ideomotor effects found that stereotypes do not need to be self-relevant to impact behavior and performance (e.g., Dijksterhuis & Van Knippenberg, 1998; Shih et al., 2002). Although we have no data to address this possibility directly, we examined the degree to which multiracial participants in our studies reported identifying themselves with a biracial identity. Participants who identify with being biracial may show the effect to a lesser degree than participants who do not identify with being biracial. Covarying out the degree to which the multiracial participants self-reported identifying with their biracial identity did not change the results. Although these results are suggestive that this is not a likely possibility, this possibility should be explored further in future studies.

Second, we should also explore the effects that the experiences associated with different component races (i.e., Asian, Black, Native American, etc.) may have on these processes. In this article, we have generally aggregated across racial identities which would overlook many of nuances associated with the differences in social experiences among the individuals from different racial groups. The effects of these differences would be worthwhile to explore. For instance, the multiracial participants that we studied in this

article were from a combination of majority and minority background. One issue that would be interesting to explore would be how these processes play out for multiracial individuals whose component identities consist only of minority identities. Would these participants be even more motivated to de-emphasize the social construction of race because they face challenges in affiliating with any of their component races?

It is interesting to note that while invalidating the biological basis of racial categories seems to undermine the impact of racial stereotypes on individuals, invalidating the stereotype but not questioning or invalidating the biological validity of the racial categories has been shown to be ineffective. For instance, Devine (1989) found that individuals who were low in racial prejudice and who did not explicitly believe in negative racial stereotypes still interpreted ambiguous behavior to be more hostile when they were implicitly exposed to negative African American primes. Similarly, other studies found that priming different identity categories impacts individual behavior in stereotype consistent ways (e.g., Bargh, Chen & Burrows, 1996; Dijksterhuis & Van Knippenberg, 1998). This point raises an interesting question. Why is undermining the biological basis of the racial category an effective means of undermining the impact of stereotypes, but invalidating the stereotype while still buying into the biological basis of the racial category relatively ineffective? One possible explanation for this difference may lie in examining the notion of racial categories from a philosophical point of view. Maintaining social categories implies that there are innate differences between the members of the groups; otherwise, there would be no reason to create the groups (Zack, 1995). In absence of clear guidelines about where these innate differences actually lie, individuals may fall back on stereotypes to offer some guidance. Regardless of whether the individuals explicitly buy into these stereotypes, maintaining social categories implies differences exist, and the suspicion of differences may be enough to impact behavior. Therefore, individuals have a choice—they can disregard the categories as a result of unclear guidelines, or use stereotypes to reinforce the unclear categories. The data of our study suggest that multiracial individuals may tend to take the first option.

Finally, it is important to keep in mind that although it may be argued that race may have no biological basis, race plays an important role in our social world, and the impact that race has on social experiences should not be trivialized. Race is associated with significant economic, political, social, and psychological consequences. In our social world, race is used to divide people into groups, and these groups are associated with differing levels of status, disparities in access to resources, and discrepancies in achievement, health, and well-being outcomes. The tragedy in this state of affairs is that myths about biological bases of racial differences in ability and personality characteristics are often used to justify these discrepancies and are also used to perpetuate racial stereotypes. In fact, these differences can be argued to have no biological basis. The results of these studies provide a positive outlook, suggesting that an awareness of the arbitrary nature of race may lessen the impact of racial stereotypes on individuals. For multiracial individuals, the results of this study suggest that an increased awareness of race as social construction could potentially provide a protective function for multiracial individuals from racial stigmatization. By emphasizing the fact that race is a biologically meaningless dimension along which to categorize people,

multiracial individuals are also able to undermine the validity of many of the social stereotypes and stigmata associated with race. This process could make them less susceptible to negative racial stereotypes. Our studies suggest that education and encouraging people to be thoughtful about issues of race may be an important tool in the fight against the negative consequences of racism and prejudice.

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