Empirical Research Paper

The Measurement of Racial Colorblindness

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Abstract

Although there is consensus that the intergroup ideology of multiculturalism is negatively related to prejudice and that assimilation is positively related to prejudice, research regarding the relationship of racial colorblindness to prejudice has produced mixed results. We investigated whether these mixed results might stem from colorblindness being a multifaceted construct despite typically being treated as unidimensional. Exploratory and confirmatory factor analyses of items from existing measures revealed three factors—equality orientation, color evasion, and rejection of racial categorization—from which we created the Multidimensional Assessment of Racial Colorblindness (MARC). Four studies provided evidence for the reliability and construct validity of the MARC and found that its subscales were often differentially related to other variables, including prejudice. We also compared the MARC to another measure of colorblindness, the Color-Blind Racial Attitudes Scale (CoBRAS). We discuss the implications of racial colorblindness as a multifaceted construct.

Keywords

racial colorblindness, prejudice, measurement, intergroup ideologies

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During the last two decades, intergroup ideologies (also known as diversity ideologies) have been a major focus of research on prejudice and intergroup relations (Leslie et al., 2020; Plaut et al., 2015; Whitley & Webster, 2019). These ideologies consist of sets of beliefs about the ways in which intergroup relations should be conducted to best achieve intergroup harmony. The three most-discussed ideologies are multiculturalism (acknowledging and celebrating group differences), colorblindness (ignoring those differences and striving to treat everyone equally), and assimilation (eliminating group differences altogether by requiring nondominant groups to give up their cultures and adopt the values and norms of the dominant group). Reviewers of the research literature on intergroup ideologies have generally agreed that endorsement of multiculturalism is negatively correlated with prejudice and that endorsement of assimilation is positively correlated with prejudice (e.g., Leslie et al., 2020; Whitley & Webster, 2019).[1] There is, however, less consensus about the relationship of colorblindness to prejudice, with some scholars seeing it as a facilitator of prejudice and others seeing it as an inhibitor of prejudice. Resolving the relationship of colorblindness to prejudice is important to improving intergroup relations in the United States, given that a large proportion of the U.S. population endorses the colorblind ideology (Hartmann et al., 2017) and colorblindness is the intergroup ideology that White parents most often teach their children (e.g., Vittrup, 2018).

Racial Colorblindness

Theoretical Perspectives

The colorblind ideology proposes that "racial or ethnic group membership should not matter and that regardless of race or ethnicity, all people are the same; thus, one should not categorize people along ethnic or racial lines" (Guimond et al., 2014, p. 148). Colorblindness assumes that

> prejudice derives from people's irrelevant and superficial emphasis on group categories (e.g., race), and therefore prejudice can be decreased by de-emphasizing group memberships. . . . In its most generic form, colorblindness suggests ignoring or avoiding discussion of group categories." (Rosenthal & Levy, 2010, pp. 216, 218)

This de-emphasis of group membership has been called *color evasion* (Neville et al., 2000, 2013).

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Some scholars (e.g., Bonilla-Silva, 2017; Neville et al., 2013) view colorblindness itself as a form of prejudice because of its potential for negative effects on intergroup relations. Thus, ignoring group differences can send the message that one does not care about racial injustice or its effects on minority groups (Rosenthal & Levy, 2010). In practice, colorblind majority group members are less likely to recognize and acknowledge contemporary racism, exhibit less ability to engage in effective intergroup communication, and are more likely to engage in racial microaggressions (Apfelbaum et al., 2012; Dovidio et al., 2016; Kanter et al., 2020). The colorblind perspective can also be used as a moral credential (Monin & Miller, 2001) that allows dominant group members to overlook instances of prejudice and discrimination by attributing their causes to non-racial factors (Knowles et al., 2009; Plaut et al., 2015). For example, by claiming that a decision resulting in differential outcomes for members of different racial groups was based on ostensibly race-neutral criteria, one could conceivably deflect a charge that the decision was a result of prejudice: As long as social and organizational policies treat everyone in the same way, any group differences in outcomes that result from those policies can be ignored (Knowles et al., 2009). Consequently, members of minority groups perceive majority group members who endorse colorblindness as biased (Apfelbaum et al., 2008).

Although colorblindness can have problematic effects, some scholars (e.g., Guimond et al., 2014; Hahn et al., 2015) view colorblindness as a potential counterweight to prejudice because of its focus on intergroup equality and nondiscrimination. In addition, colorblindness advocates the personalization of outgroup members—viewing them as complex individuals rather than simply as members of homogeneous groups (Guimond et al., 2014). This perspective, in turn, is related to lower prejudice (Miller, 2002). Furthermore, taking a colorblind approach to intergroup relations implies making efforts to prevent one's prejudices from influencing one's behavior (Correll et al., 2008), a process that is effective in reducing prejudice (Monteith et al., 2016).

Empirical Evidence

As suggested by the conflicting theoretical predictions, research on the relationship between endorsement of colorblindness and prejudice has produced mixed results. Two recent meta-analyses highlight this issue. First, Whitley and Webster (2019) synthesized the results of studies testing the relationships between colorblind, multicultural, and assimilation ideologies with prejudice. They found that although colorblindness was associated with lower prejudice, the effect was quite small. Leslie et al. (2020) similarly considered colorblindness alongside other ideologies and assessed these variables' relationships with other aspects of intergroup relations. They too found that although colorblindness was negatively associated with prejudice, the relationship was quite small and demonstrated considerable heterogeneity. They also found that colorblindness had negative associations with stereotyping and support for diversity policy but no association with discrimination.

Both of these analyses hint at ways in which colorblindness is related to aspects of intergroup relations, but they also show how prior research has not been able to tell a simple story. Given our interest in understanding predictors of prejudice, we emphasize that both meta-analyses found substantial variation in the colorblindness–prejudice correlation, which works out to a near-zero relationship in the aggregate. Although some of this variance may be due to the unique characteristics of each study or to sampling variance, we suggest that at least some of the variation in outcomes is due to the item content of the scales used to assess colorblindness.

Measurement Issues

Based on their review of the literature, Plaut et al. (2015) identified five themes in the beliefs assessed by measures of colorblindness: (a) commonalities among groups outweigh any superficial differences, (b) individual differences among group members outweigh any within-group similarities that may exist (so one's focus should be on the person, not their groups), (c) ignoring race and ethnicity will improve society, (d) everyone in a given country shares a common higher-order identity (e.g., "We are all Americans"), and (e) discussion of race and ethnicity should be avoided. Of the colorblindness measures used in the studies reviewed by Whitley and Webster (2019), only one included all five themes. The most commonly assessed theme—treating people as individuals—was included in only 8 of 13 measures. Such variance in measurement instruments poses challenges in interpreting the consistency of findings in this area of research: To the extent that different aspects of colorblindness are related to higher or lower levels of prejudice, questionnaires that emphasize different aspects of the construct could produce different results.

This analysis suggests that many existing measures of colorblindness lack representativeness—the aspect of content validity that requires measures to include items relating to all components of the construct being assessed (John & Soto, 2007). The goal of our research, therefore, was to factor analyze existing colorblindness items to assess the degree to which current measures tap into the theoretical dimensions of colorblind ideology and to develop a measure of colorblindness higher in content validity. If multiple dimensions are identified, a measure based on those dimensions would provide researchers with a more nuanced tool for studying colorblindness.

Relationships to Other Intergroup Ideologies

In addition to examining the factor structure of colorblindness, we also examined its relationships to two other intergroup ideologies: assimilation and multiculturalism.

Assimilation

Some scholars (e.g., Dovidio et al., 2016; Plaut et al., 2009) have proposed that colorblindness and assimilation are closely related because both ideologies minimize the importance of group differences, albeit in different ways: ignoring them (colorblindness) versus eliminating them (assimilation). Consistent with the view that assimilation and colorblindness are similar constructs, Leslie et al. (2020) noted that some measures intended to assess colorblindness have included items that reflect the assimilationist ideology. For example, Neville et al.'s (2000) Color-Blind Racial Attitudes Scale (CoBRAS) includes items such as "Immigrants should try to fit into the culture and values of the U.S." (p. 62).

In contrast, other scholars have noted that the two ideologies differ both conceptually and empirically. They differ conceptually in that while assimilation entails eliminating group differences, colorblindness recognizes that group differences are important but holds that one should not allow those differences to influence one's treatment of others. Colorblindness, then, has an egalitarian focus based on the avoidance of discrimination, whereas assimilation has an anti-egalitarian focus based on the assumption of the inherent superiority of majority group culture (e.g., Guimond et al., 2014). Thus, for example, Levin et al. (2012) found that endorsement of assimilation was positively related to social dominance orientation (SDO), one indicator of anti-egalitarianism, whereas endorsement of colorblindness was negatively related to SDO. The two ideologies are also empirically distinct: Factor analyses have found that questionnaire items designed to assess assimilation ideology and items designed to assess colorblind ideology load on separate factors (Hahn et al., 2015; Rosenthal & Levy, 2012), and in a meta-analysis of correlations between scores on measures of colorblindness and assimilation, Whitley and Webster (2019) found a mean correlation of $r = -.09$. However, because different facets of colorblindness may have different relationships with assimilation, our research examined that possibility.

Multiculturalism

Because multiculturalism emphasizes the importance of group identity and colorblindness emphasizes that differences are unimportant and should be ignored (Leslie et al., 2020), narrative reviews of the intergroup ideology literature have contrasted these ideologies (e.g., Neville et al., 2013; Plaut et al., 2015), implying that they are negatively related. However, in a meta-analysis of correlations between scores on measures of colorblindness and multiculturalism, Whitley and Webster (2019) found a mean correlation of $r = .26$, indicating that the two ideologies are relatively independent. This outcome is unsurprising, given that people could reasonably believe that group identities are important while simultaneously believing that group membership should not influence how they interact with other people (Rosenthal & Levy, 2010). As with assimilation, different facets of colorblindness may have different relationships with multiculturalism, a possibility that we also explored.

Overview of the Research

We examined the structure of colorblind attitudes by conducting exploratory factor analysis and confirmatory factor analysis (CFA) of items that have been used in previous research. We also assessed the convergent and discriminant validity of the factors that emerged.

Convergent Validity

Although many constructs are conceptually or empirically related to colorblindness, we used the following to assess the convergent validity of the colorblindness factors we identified. Any study is necessarily restricted in the number of variables it can reasonably assess, so we chose the following constructs because they appeared to be highly conceptually relevant to colorblindness and frequently measured in research on the psychology of prejudice.

Preference for meritocracy. Because both the colorblind and meritocracy ideologies focus on treating all people equally while ignoring group membership (Leslie et al., 2020), people who endorse colorblindness may also show a preference for meritocracy, the belief that rewards should go to the highest achievers (Neville et al., 2013).

Denial of discrimination and of White privilege. Colorblind ideology may also promote denial of discrimination because colorblindness implies that equality already exists, so that discrimination is no longer a problem (Dovidio et al., 2016; Neville et al., 2013). Neville et al. have suggested that colorblindness's implication of equality also promotes denial of White privilege, a subtle form of discrimination.

Opposition to affirmative action. Stemming from a preference for meritocracy and denial of discrimination is the likelihood that colorblindness will entail a belief that no action need be taken to remedy inequalities, leading to a negative attitude toward affirmative action programs. Thus, Mazzocco et al. (2011) and Yogeeswaran et al. (2018) found that greater endorsement of colorblindness corresponded with more negative attitudes toward affirmative action.

Attitudes toward group equality. In contrast to the view that colorblindness is anti-egalitarian, some scholars have suggested that colorblindness is motivated by a desire for social equality (e.g., Guimond et al., 2014) and so should be negatively related to preferences for inequality among social groups. In this regard, Knowles et al. (2009) and Levin et al.

(2012) found negative correlations between scores on measures of colorblindness and SDO.

Motivation to control prejudice. Similarly, to the extent that colorblindness reflects egalitarian attitudes, it should be associated with motivation to control prejudice (Correll et al., 2008).

Multiculturalism. Although there is disagreement among scholars about the relationship between colorblindness and multiculturalism, based on Whitley and Webster's (2019) finding of a positive correlation among scores on measures of these ideologies, we expected to find a positive correlation between colorblindness and multiculturalism.

Ethnic prejudice. Finally, given that research on colorblindness has focused on its relationship to ethnic prejudice, we also measured attitudes toward minority groups. Given the mixed results of prior research on this topic, we did not propose a hypothesis about the relationship between colorblindness and prejudice, but we tested the possibility that different aspects of colorblindness might be differently correlated with prejudice.

Discriminant Validity

As with multiculturalism, the relationship between attitudes toward the assimilation of minority groups and colorblindness has been a subject of disagreement among scholars. However, based on Whitley and Webster's (2019) finding of no correlation between scores on measures of colorblind and assimilationist ideologies, we also expected to find no correlation.[2] We also assessed the factors' vulnerability to social desirability response bias. Finally, for exploratory purposes, we included a measure of attitudes toward majority groups, a construct that has not been investigated in relation to colorblindness.

Research Strategy

Across four studies that sampled from two populations, we examined the factor structure of previously used measures of racial colorblindness and tested the validity of the resulting measurement instrument.[3] The results of our analyses support the use of a three-factor colorblind racial attitudes scale, which we have named the Multidimensional Assessment of Racial Colorblindness (MARC).

To present a concise description of the construction and validation of the MARC, we have organized our presentation as follows. First, we describe below the purposes of each study. We then present a single method section that describes each study's methods. We organize our results around the types of analyses we conducted, some of which include data from multiple studies: exploratory factor analysis, CFA, validity evidence, and the comparison of the MARC with a commonly-used existing measure, Neville et al.'s (2000) CoBRAS. Finally, we present a general discussion of our findings.

Study 1

We assembled a set of colorblindness items from the scales used in the studies included in Whitley and Webster's (2019) meta-analysis and additional studies identified in a search of the PsycINFO database using the thesaurus term *colorblind ideology.* This search produced 13 relevant articles; after items referring to assimilation were excluded, we identified a total of 52 items that assessed colorblindness. Of these, only seven items appeared more than once in either exact or substantially similar form. These duplicates were eliminated, leaving a final sample of 45 unique items (see Table 2 in the "Exploratory Factor Analysis" section of the results for the items and their sources). These items appeared to cover all five colorblindness components identified by Plaut et al. (2015), suggesting reasonable content validity at the level of the overall field of research. To more directly probe the unique constructs captured by these items, however, we conducted an exploratory factor analysis. We assessed convergent and divergent validity by testing relationships between colorblindness factors and relevant variables, including attitudes toward privileged and marginalized social groups.

Study 2

Our next study had three purposes. The first was to conduct a CFA to assess the structural validity of the colorblindness factors identified in Study 1; as we report later, we also conducted CFAs using the data from Studies 3 and 4.

The second purpose was to assess the generalizability of some of the results of Study 1 by moving from generalized indicators of denial of inequality used in Study 1 to more specific indicators: attributions of particular events to discrimination and a more nuanced measure of attitudes toward affirmative action. Individuals who endorse colorblindness are less likely to attribute others' intergroup behavior to discrimination (Apfelbaum et al., 2012; Plaut et al., 2015). To probe the colorblindness factors' relationships with this particular form of discrimination denial, we replaced the denial of discrimination measures used in Study 1 with a revised version of Nelson et al.'s (2012) perceptions of racism questionnaire. This questionnaire has respondents rate the degree to which they perceived examples of interpersonal and systemic discrimination to be caused by racism.

One problem in assessing attitudes toward affirmative action is that the term *affirmative action* can have different meanings to different people (Reyna, 2018). For example, Haley and Sidanius (2006) found that support for affirmative action differed across meanings that were relatively negative (e.g., "quotas"), neutral (e.g., "using group membership as one of several considerations"), and positive (e.g., "making a

special effort to find qualified people from certain groups"). Therefore, to get a more fine-grained analysis of attitudes toward affirmative action, we replaced the items used in Study 1 with those of Haley and Sidanius (2006).

The third purpose was to further examine the discriminant validity of our measure by adding two groups to the feeling thermometer measure: lesbians and gay men.[4] We chose these groups because prejudice against them should be largely unrelated to race and thus unrelated to racial colorblindness.

Study 3

The researchers who developed the items that comprise the MARC generally viewed colorblindness as an ideology that ultimately strove to promote egalitarian values (e.g., Guimond et al., 2014). As we noted earlier, an alternative perspective views colorblindness as an ideology that supports inequality by providing a moral credential that allows dominant group members to overlook instances of prejudice and discrimination. One measure that reflects this perspective is Neville et al.'s (2000) CoBRAS, which consists of items assessing denial of White privilege, denial of institutional discrimination, and denial of racism as a social problem. The scale has been widely used as an operational definition of colorblindness: As of February 2022, Google Scholar listed 1,129 citations of the article that reported development of the scale.

Prior research suggests that CoBRAS and MARC scores may correlate differently with scores on other variables, such as prejudice. As an initial test of this possibility, we conducted a meta-analysis of studies that reported the relationship between a measure of prejudice and scores on either the CoBRAS or on a measure that contributed items to the MARC (see Supplemental Materials). We found a meta-analytic mean correlation of $r. = .58$ for the CoBRAS and of $r. = .09$ for the MARC-related measures; the difference between these correlations was statistically significant, $p < .001$. There are two possible explanations for this difference. The first is the difference in the theories underlying the measures, which may produce conceptually distinct measures with different implications for prejudice.

The second explanation lies in how the studies assessed prejudice: Seven of the 13 CoBRAS studies used either the Modern Racism Scale (McConahay et al., 1981) or the conceptually similar Symbolic Racism Scale (Henry & Sears, 2002), whereas only one of the non-CoBRAS studies did. In contrast, 11 of the 15 non-CoBRAS studies used a feeling thermometer to assess prejudice whereas only two of the CoBRAS studies did. Thus, differences in study outcomes could reflect differences in operationalizing prejudice. Indeed, correlations between symbolic racism and feeling thermometer scores are typically low (Brandt & Reyna, 2014; Kanter et al., 2020). These low correlations are perhaps not surprising, given that the measures assess somewhat different aspects of prejudice: The feeling thermometer assesses intergroup affect whereas the symbolic racism scale assesses factors such as denial of discrimination and racial resentment (Sears & Henry, 2005). We, therefore, included both a feeling thermometer and a measure of modern-symbolic racism in our study. As a parallel to modern-symbolic racism, we also included a measure of modern attitudes toward lesbians and gay men.

Because the CoBRAS was designed to assess color evasion (Neville et al., 2000), we expected to find a positive correlation between CoBRAS and MARC color evasion subscale scores but had no predictions for the other MARC subscales. We also compared the correlations of scores on the CoBRAS and the MARC subscales to scores on variables used in Studies 1 and 2. However, we did not include a measure of denial of White privilege in this study because it is a component of the CoBRAS, which could inflate the correlation between scores on those measures (Nicholls et al., 1982).

We tested possible differences between the CoBRAS and the MARC Typo by examining the correlations between scores on the CoBRAS and the MARC subscales and by comparing correlations of scores on the CoBRAS and MARC subscales with scores on other variables.

Study 4

Because the first three studies used college student participants, we collected data from an online sample to provide a different population for examining the generalizability of the results of the previous studies. We used a subset of measures that we deemed the most theoretically and empirically relevant to reduce the time needed to complete the survey.

Method

All studies were reviewed and approved by the university's Institutional Review Board.

Materials, data, and analysis scripts for all studies are available at https://osf.io/6utck/.

Study 1

Participants. We set our target sample size at 290 White participants; we chose to focus on White participants for comparability with previous research. This number was based on two criteria. First, we chose a target participant-to-items ratio of 5, for an N of 225; a sample of this size is adequate for factor analysis, given the number of items analyzed (Fabrigar & Wegener, 2012). Second, we increased our target sample size to account for the probability of having to drop observations from non-White participants and because of missing data.

After collecting data for one semester ($N = 334$), we discovered that a programming error meant that participants received only a random subset of item blocks. As a result,

Table 1. Demographic Characteristics of Participants and Analyses to Which They Provided Data.

	Study 1	Study 2	Study 3	Study 4
Sample Characteristics	University Participant Pool	University Participant Pool	University Participant Pool	Online Survey
N	261[a]	210	232	249
Age				
Mean	19.16	18.66	19.00	39.84
Range	18-41	18-28	18-48	18-85
Gender				
Female	70.11%	75.71%	72.41%	48.59%
Male	29.12%	23.33%	26.72%	49.00%
Chose not to answer	0.77%	0.95%	0.86%	2.41%
Data used in:				
Exploratory factor analysis	×			
Confirmatory factor analyses		×	×	×
Validity analyses	×	×	×	×
CoBRAS comparison			×	

[a]Samples sizes varied across analyses due to missing data. This is the number of participants who provided data for the exploratory factor analysis. See Study 1 procedures for more information.

each scale in the survey received only 162 responses on average. Therefore, to achieve our target sample size for testing relationships between variables, we fixed the programming error and continued to collect data to maximize the number of participants with complete data. Given available resources and some uncertainty about the total numbers of participants responding to each pair of variables, we continued data collection through the next semester to maximize statistical power. We did not conduct any analyses until all data had been collected.

In total, 534 introductory psychology students at a mid-sized Midwestern public university completed this survey in partial fulfillment of a course requirement. The data from 110 participants who indicated that they identified with an ethnicity other than White were excluded from the analyses. This left 261 participants who provided data for the color-blindness items and at least a subset of the other measurement instruments. Demographic characteristics of this and the other samples are shown in Table 1.

Measures. We assessed three demographic variables in all four studies: gender (female, male, and prefer not to respond), age, and ethnic identification (African American/Black, Asian American, Hispanic American/Latina/Latino, Native Hawaiian or Pacific Islander, Native American/American Indian, White/European American, more than one of the above, and other).

Denial of discrimination, denial of White privilege, opposition to affirmative action, multicultural attitudes and attitudes toward cultural assimilation were measured using scales developed in the preliminary study (see Supplemental Materials). Preference for meritocracy was assessed by Davey et al.'s (1999) 15-item Preference for the Merit Principle Scale; attitudes toward group equality were assessed using the 8-item anti-egalitarianism subscale of the SDO scale (Ho et al., 2015); motivation to control prejudice was assessed using Plant and Devine's (1998) 5-item internal and external motivation to control prejudice scales; and vulnerability to social desirability response bias was assessed using the 8-item short form of Paulhus's (1991) impression management scale developed by Hart et al. (2015) All measures used 7-point scales ranging from 1 = *strongly disagree* to 7 = *strongly agree* with anchors at each scale point, with higher scores indicating higher levels of the variables. Each scale was only scored for participants who responded to all items in that scale.

Ethnic prejudice was assessed using feeling thermometers for African Americans, Asian Americans, Jewish Americans, Hispanic Americans, Muslim Americans, Native Americans, Christian Americans, and White Americans. The feeling thermometer response scale ranged from 1 = *very cold or unfavorable feeling* to 7 = *very warm or favorable feeling* with anchors at each scale point. Although feeling thermometers are single-item scales, they have been found to have good reliability and validity as measures of prejudice (Axt, 2018). The ratings of the first six groups listed were used to create a measure of attitudes toward minority groups and scores on the last two groups were used to create a measure of attitudes toward majority groups. Scale scores for all measures were computed as the mean of their item scores.

We also computed an index of ingroup favoritism, the degree to which persons show a preference for their own group versus outgroups (Brewer, 2017), using the feeling thermometer scores. Feelings toward ethnic minority groups were subtracted from feelings toward ethnic majority groups; more positive values on this new variable reflect more favorable feelings toward majority (vs. minority groups), and more negative values on this new variable reflect more

favorable feelings toward ethnic minority (vs. majority) groups. Because all participants across studies identified their race as "White," this variable assesses preferences for one's own racial group over others.

Procedure. Data were collected online during two phases using the Qualtrics survey system. Phase 1 took place September through December 2018, and Phase 2 took place January through April 2019. After registering for the study, students were taken to a web page with the study's consent form; if they agreed to participate, they were taken to the survey page.

The questionnaire consisted of three sections. In the first section, three items asked participants to report demographic information. In the second section, participants responded to blocks of items with each block assessing a given variable. Order of blocks and items within blocks were randomized for each participant. Section three consisted of the prejudice items. At the end of the survey, participants were thanked for their participation and given an email address to use to contact the researchers if they had questions. As a result of missing data, sample sizes for analyses vary, and correlation and regression analyses were conducted using pairwise deletion of missing data.

Study 2

Participants. We set our target sample size at 250 participants based on Wolf et al.'s (2013) recommended sample size of 190 for a power of .80 for CFA testing a three-factor model having at least 6 indicators on each factor with a minimum loading of .50 for each indicator. As in Study 1, we increased our target sample size in anticipation of having to drop observations.

In total, 267 introductory psychology students at a mid-sized Midwestern public university participated in partial fulfillment of a course requirement. The data from the 57 participants who indicated that they identified with an ethnicity other than White were not included in the analyses. The final sample consisted of 210 participants.

Measures. To maintain comparability with the questionnaire used in Study 1, we included all the colorblindness items from that study although only the items from Study 1 that were assigned to a factor were used in the CFA. With two exceptions we used the same convergent and discriminant validity measures.

To obtain a more fine-grained assessment of attitudes toward affirmative action, we replaced the opposition to affirmative action scale used in Study 1 with Haley and Sidanius's (2006) meanings of affirmative action scale. Respondents rated negative, neutral, and positive meanings of affirmative action on a scale ranging from 1 = *strongly oppose* through 4 = *neither oppose nor support* to 7 = *strongly support*.

To obtain a different perspective on denial of discrimination, we replaced the scale used in Study 1 with a slightly revised version of Nelson et al.'s (2012) perceptions of racism scale (see Supplemental Materials), which has respondents rate the degree to which they attribute examples of interpersonal and systemic discrimination to be caused by racism. Respondents rated each item on a scale ranging from 1 = *definitely NOT discrimination* through 4 = *unsure* to 7 = *definitely discrimination*.

Procedure. Data were collected online between September and November 2019, using the same procedures as Study 1.

Study 3

Participants. Because the major focus of this study was the relationship between the MARC subscales and the CoBRAS, we powered the study to detect raw correlations between these variables. In the absence of a strong prediction about the size of these correlations, we used the average correlation found in social psychological research (r = .20; Richard et al., 2003). A sample size of 200 provides .80 statistical power for detecting a correlation of that size (Cohen et al., 2003). As in Studies 1 and 2, we increased our target sample size in anticipation of having to drop observations. Thus, our target sample size was N = 250, but we continued collecting data until the end of the semester.

In total, 313 introductory psychology students at a mid-sized Midwestern public university participated in partial fulfillment of a course requirement. Seven participants who did not complete the full survey were removed from the data set, and the data from 74 participants who indicated that they identified with an ethnicity other than White were not included in the analyses. The final sample consisted of 232 participants.

Measures. With a few exceptions, we used the convergent and discriminant validity measures from Studies 1 and 2. Because we found that the measures of affirmative action attitudes used in Study 2 had low reliability, we used the measure from Study 1. MARC subscale scores were assessed using the items identified in Studies 1 and 2; CoBRAS scores were assessed using the items from Neville et al.'s (2000) Table 1. Although the CoBRAS was originally found to have three subscales, CFA has shown that a one-factor solution is psychometrically sound (Keum et al., 2018), so we computed a single overall CoBRAS score. In addition to using the feeling thermometer to assess intergroup attitudes, we used 12 items drawn from the Modern Racism Scale (McConahay et al., 1981) and the Symbolic Racism 2000 Scale (Henry & Sears, 2002) which we designated the Modern-Symbolic Racism Scale (MSRS; see Supplemental Materials). As a parallel to the MSRS, we included M. A. Morrison and Morrison's (2020) Modern Homonegativity Scale (MHS). Because the items on the MHS lesbians and gay men

subscales are worded identically except for the name of the target group, we created a single scale in which each item referred to both lesbians and gay men. We did not include a measure of denial of White privilege in this study because it is a component of the CoBRAS, which could inflate the correlation between scores on those measures (Nicholls et al., 1982). Item from some scales were dropped to prevent statistical issues with item overlap between scales (see Supplemental Materials).

Procedure. Data were collected using the same procedures as Studies 1 and 2 during February to April and September to October 2020.

Study 4

Participants. We set our target sample size at 250 participants based on the statistical power analysis reported in Study 3. The initial pool of participants consisted of 250 individuals recruited from the crowdsourcing site Prolific.ac who were paid US$1.00 for their participation. We recruited participants who reported United States residency and had identified their race as White on Prolific's prescreening survey; however, in the demographic inventory in our survey, one participant indicated that they identified with an ethnicity other than White and so was not included in the analyses. The final sample was composed of 249 participants. Mean age was 39.8 years and level of education ranged from no high school diploma to doctoral degree, with a median level of a bachelor's degree. This sample, thus, differs from our previous samples along important demographic dimensions.

Measures. We collected the same demographic data as in the other studies plus level of education, assessed using the standard Qualtrics item which ranges from less than high school to doctoral degree. We used the following convergent and discriminant validity measures described earlier: preference for meritocracy, denial of discrimination (from Study 1), multiculturalism, cultural assimilation, social desirability response bias, and feeling thermometers (ethnic majority groups, ethnic minority groups, and sexual minority groups).

Procedure. The survey followed the same structure as the previous studies. All data were collected during June 2021.

Results

Exploratory Factor Analysis

Examination of the item correlation matrix indicated that the item set was factorable: Kaiser-Meyer-Olkin measure of sampling adequacy = .94 and Bartlett's test of sphericity $\chi^2(990) = 6{,}209.02$, $p < .001$. The number of factors to be retained was determined by parallel analysis, comparing the obtained eigenvalues to the 95th percentile random eigenvalues (simulated with 100 iterations). Parallel analysis found three factors with eigenvalues >1 and for which the observed eigenvalues exceeded their criterion values: 14.29 obtained versus 1.09 criterion for factor 1, 3.72 obtained versus 0.90 criterion for factor 2, and 1.27 obtained versus 0.81 criterion for factor 3.

We then conducted an exploratory factor analysis using principal axis factoring and varimax rotation, constraining the number of factors to 3. The results of that analysis are shown in Table 2. The three-factor model fit the data very well, root mean square error of approximation (RMSEA) = .048, 90% CI: [.044, .053]. Because of the generally high loadings, we assigned an item to a factor if it had a loading of at least .50 on that factor and a loading no higher than .40 on any other factor. The first factor accounted for 18.5% of the variance; 14 items were assigned to this factor, which we named *equality orientation* because most items referred either to the need to view outgroup members as individuals rather than as exemplars of their groups or to the need to focus on intergroup similarities rather than intergroup differences, variables that have been found to be related to lower prejudice (Kite & Whitley, 2016). The second factor accounted for 14.2% of the variance; nine items were assigned to this factor, which we named *color evasion* because the items referred to reluctance to engage with issues related to race or ethnicity. The third factor accounted for 11.2% of the variance; seven items were assigned to this factor, which we named *rejection of racial categorization* because the items referred to potential negative effects of creating categories based on race or ethnicity.

These three factors appear to encompass the five theoretical colorblindness dimensions identified by Plaut et al. (2015), supporting the factors' content validity: The equality orientation items reflect the need to judge people as individuals and the idea that everyone is basically the same, the color evasion items reflect avoidance of race and ethnicity and the idea that everyone shares a common nationality, and the rejection of categorization items reflect the belief that ignoring race and ethnicity will improve society. The finding that colorblind racial attitudes are composed of three factors indicates that racial colorblindness is a multifaceted construct (Carver, 1989).

Confirmatory Factor Analyses

Using data from Studies 2, 3, and 4, we conducted CFA of the results of Study 1's exploratory analysis. Table 3 shows the fit statistics for these analyses. We tested three models: a one-factor model (Model 1), a model with three uncorrelated factors (Model 2), and a model with three correlated factors (Model 3). Although Models 1 and 2 could not be compared statistically because they are not nested, changes in the fit indices indicated that Model 2 fits the data better than Model 1. Furthermore, Model 3 fit the data better than either of the

Table 2. Results of Exploratory Factor Analysis of Colorblindness Items.

Item	Factor 1	Factor 2	Factor 3
Factor 1: Equality orientation			
Children should learn that people of different cultural origins often have a lot in common. (2)[a]	**0.75**	0.07	0.10
In making decisions about hiring, qualifications should be what matters, not the applicant's racial, ethnic, or other background factors. (11)	**0.74**	0.06	0.13
In an organization, promotion should be dependent on employee performance, not their racial, ethnic or other background factors. (11)	**0.74**	0.05	0.03
In the classroom, it is important that students of different cultural backgrounds recognize the similarities that exist between them. (2)	**0.72**	0.12	0.06
You can find commonalities with every person no matter what their background is. (3)	**0.71**	0.07	0.08
Learning about the similarities between racial and ethnic groups will help us develop a more harmonious society. (8)	**0.66**	–0.03	0.21
When there are conflicts between people of different cultural backgrounds, they should be encouraged to resolve the argument by finding common ground. (2)	**0.66**	0.22	0.09
Everyone should be treated the same, regardless of their race or ethnicity. (10)	**0.64**	0.02	0.17
In a group or organization, all people should be welcome regardless of background as long as they meet the necessary requirements. (11)	**0.63**	–0.08	0.19
It is important to pay attention to the individual characteristics that make a person unique rather than ethnic, racial, or other social background. (2)	**0.61**	0.26	0.19
Schools should aim to foster and support the similarities between students from different cultural backgrounds. (2)	**0.55**	0.13	0.11
In order to have a cooperative society, everyone must remember we're all just human and not become preoccupied with race and ethnicity (8)	0.54[b]	0.41	0.30
It's best to judge one another as individuals rather than as members of an ethnic group. (5)	**0.54**	0.11	0.29
Recognizing that people are basically the same regardless of their ethnicity will improve relations between groups in the United States (13)	0.53[b]	0.28	0.41
Judging one another as individuals rather than members of an ethnic group will improve relations between groups in the United States (13)	**0.52**	0.16	0.32
In order to achieve a harmonious society, we must stop thinking of Americans with different racial backgrounds as different from each other, and instead focus on what makes us similar. (3)	**0.51**	0.36	0.26
People who become preoccupied by race are forgetting that we are all just human. (4)	0.50[b]	0.41	0.33
All humans are fundamentally the same, regardless of where they come from or what their background is. (3)	0.40	0.25	0.26
People are basically the same, regardless of their racial or ethnic background. (10)	0.39	0.27	0.38
Factor 2: Color evasion			
Nothing good will come out of continuing to focus on race. (6)	0.17	**0.73**	0.16
I wish people in our society would stop obsessing so much about race. (4)	0.29	**0.73**	0.05
We must stop obsessing so much about race and ethnicity in order to have a cooperative society. (8)	0.32	**0.69**	0.22
America would be better off if we stopped placing so much importance on race. (5)	0.30	**0.67**	0.20
Talking about racial issues causes unnecessary tension. (9)	–0.06	**0.61**	0.16
Learning to ignore differences between ethnic groups will improve relations between groups in the United States (13)	0.05	**0.56**	0.23
The topic of race is something that should generally be avoided. (6)	–0.18	**0.56**	0.24
For the unity of the country, individuals should be considered Americans before any consideration is given to their race or religion. (5)	0.25	**0.55**	0.21
It is important that people begin to think of themselves as American and not African American, Mexican American, or Italian American. (9)	0.05	**0.54**	0.18
When working as a member of a group, it is better not to pay attention to other group members' cultural backgrounds. (7)	0.08	0.47	0.21
At our core, all human beings are really the same, so racial and ethnic categories do not matter. (12)	0.27	0.44	0.35
I do not want Americans to be identified by their race, national origin, or religion. (5)	0.17	0.44	0.42
Racial and ethnic groups do not matter very much to who we are. (12)	–0.09	0.43	0.28
Adopting a colorblind perspective in which one's ethnic group membership is considered unimportant will improve relations between groups in the United States (13)	0.18	0.39	0.38
We should treat citizens of this country as Americans and not as members of particular ethnic, religious, or sexual communities. (5)	0.37	0.39	0.29
Ethnic and cultural group categories are not very helpful for understanding or making decisions about people. (12)	0.14	0.38	0.24

(continued)

Table 2. (continued)

Item	Factor 1	Factor 2	Factor 3
Factor 3: Rejection of racial categorization			
Seeing people in terms of race or ethnicity creates inequality among groups. (1)	0.19	0.25	**0.70**
Seeing people in terms of race is an injustice. (1)	0.25	0.19	**0.65**
Seeing people in terms of race or ethnicity leads to prejudice. (1)	0.23	0.25	**0.62**
Categorizing people by race is in and of itself racist. (1)	0.09	0.25	**0.57**
If we want to help create a harmonious society, we must recognize that race and ethnicity are artificial labels that keep people from thinking freely as individuals. (8)	0.26	0.35	**0.53**
Putting racial labels on people hides the fact that everyone is a unique individual. (4)	0.36	0.25	**0.51**
Seeing people in terms of race strips them of their individuality. (1)	0.29	0.20	**0.51**
Ending racial categorization would create a more just society. (1)	0.37	0.33	0.45
Seeing people in terms of race or ethnicity makes good relations between groups more difficult. (6)	0.13	0.27	0.45
I never really notice the racial or ethnic background of other people. (10)	0.04	0.25	0.37

Note. $N = 261$. Loadings of items assigned to factors are shown in boldface.

[a]Sources of items are shown in parentheses: 1 = Goff et al. (2013), 2 = Hachfeld et al. (2015), 3 = Hahn et al. (2015), 4 = Knowles et al. (2009), 5 = Levin et al. (2012), 6 = Mazzocco et al. (2011), 7 = Meeussen et al. (2014), 8 = K. R. Morrison et al. (2010), 9 = Neville et al. (2000), 10 = Perry et al. (2015), 11 = Podsiadlowski et al. (2013), 12 = Rosenthal and Levy (2012), 13 = Ryan et al. (2007). [b] Not assigned to Factor 1 because of relatively high loading (>.40) on other factor.

Table 3. Results of Confirmatory Factor Analyses for Studies 2, 3, and 4.

Model	χ^2	*df*	Change in χ^2 vs. Model 3 (*df* = 3)	CFI	TLI	RMSEA	SRMR
Study 2							
1. One factor	1,234.85***	405	443.01***	0.69	0.67	0.10	0.10
2. Three uncorrelated factors	997.40***	405	205.56***	0.78	0.76	0.08	0.22
3. Three correlated factors	791.84***	402		0.85	0.84	0.07	0.08
Study 3							
1. One factor	1,613.86***	405	781.25***	0.58	0.54	0.11	0.13
2. Three uncorrelated factors	985.01***	405	152.40***	0.80	0.78	0.08	0.18
3. Three correlated factors	832.61***	402		0.85	0.84	0.07	0.09
Study 4							
1. One factor	2,081.05***	405	734.38***	0.66	0.64	0.13	0.13
2. Three uncorrelated factors	1,648.22***	405	301.55***	0.75	0.73	0.11	0.29
3. Three correlated factors	1,346.67***	402		0.81	0.79	0.10	0.13

Note. Structural equation modeling was used for the analysis. Models 1 and 2 could not be compared statistically because they are not nested. CFI = comparative fit index; TLI = Tucker–Lewis Index; RMSEA = root mean square error of approximation; SRMR= standardized root mean square residual.
***$p < .001$.

other two. Although the comparative fit index (CFI) and Tucker–Lewis Index fit indexes were not ideal by conventional standards, the RMSEA and standardized root mean square residual indicated that the models adequately fit the data. Indeed, Lai and Green (2016) caution against strict cutoffs for interpretation, pointing out that these two types of fit indices can diverge in the conclusions they suggest. In addition, Rigdon (1996) suggests that the latter indexes are more appropriate indicators of fit in our studies, arguing that CFI is more appropriate in exploratory contexts whereas RMSEA is more appropriate in confirmatory ones.

Table 4 shows the factor loadings and the correlations between the latent factors for each study as well as weighted means of loadings and correlations across studies. All items had strong mean loadings (greater than .50). These results support a three-factor MARC. As in the exploratory factor analysis and validity analyses (reported next), the three factors demonstrated moderate intercorrelations, with the correlation between color evasion and rejection of racial categorization being stronger than the other two.

Validity Analyses

To provide a concise presentation of the results of the four studies, we conducted an internal meta-analysis. Tables showing the results for Studies 1, 2, and 4 separately are in the Supplemental Materials; results for Study 3 are in Table 7 as part of our comparison of the MARC with the CoBRAS. Correlations among the scores on the validity criterion variables for this and the other studies are shown in the Supplemental Materials.

Construct validity. For these analyses, we calculated weighted mean correlations using the method described by Goh et al. (2016). Table 5 shows the mean correlations among the scores on the MARC subscales, the mean correlations between the scores on the colorblindness factors and the scores on the validity criterion variables, the sample-size-weighted internal consistency coefficient alpha for the variables, and the sample-size-weighted means and pooled standard deviations for the variables. These results generally support the reliability and validity of the MARC subscales.

It is notable that the patterns of correlations frequently differed among the MARC subscales; in addition, there were many small and statistically nonsignificant correlations for rejection of racial categorization. The three subscales had similar patterns of correlation with only a few criterion variables (e.g., preference for meritocracy). In contrast, color evasion frequently had oppositely-signed correlations from equality orientation and in many other cases, statistically significant correlations for one subscale were paired with nonsignificant correlations for another. The finding of different patterns of correlations with other variables provides further evidence that racial colorblindness is a multifaceted construct (Carver, 1989). Importantly, however, the subscales had only small correlations with social desirability response bias scores.

Colorblindness and prejudice. As shown in Table 5, all three dimensions of colorblindness were correlated with prejudice on at least some indicators. For example, favorable feelings toward minority groups were positively associated with equality orientation, negatively associated with color evasion, and (slightly) positively associated with rejection of

Table 4. Confirmatory Factor Analysis Loadings for Model With Three Correlated Factors for Studies 2, 3, and 4.

Item	Study 2	Study 3	Study 4	*Mean*[a]
Factor 1: Equality orientation				
In the classroom, it is important that students of different cultural backgrounds recognize the similarities that exist between them	0.67	0.76	0.70	0.71
Children should learn that people of different cultural origins often have a lot in common	0.72	0.73	0.59	0.68
Learning about the similarities between racial and ethnic groups will help us develop a more harmonious society	0.72	0.68	0.59	0.66
It is important to pay attention to the individual characteristics that make a person unique rather than ethnic, racial, or other social background	0.62	0.69	0.60	0.64
Judging one another as individuals rather than members of an ethnic group will improve relations between groups in the United States	0.67	0.51	0.70	0.63
In an organization, promotion should be dependent on employee performance, not their racial, ethnic or other background factors	0.66	0.71	0.50	0.62
Schools should aim to foster and support the similarities between students from different cultural backgrounds	0.60	0.59	0.65	0.61
In order to achieve a harmonious society, we must stop thinking of Americans with different racial backgrounds as different from each other, and instead focus on what makes us similar	0.59	0.60	0.64	0.61
When there are conflicts between people of different cultural backgrounds, they should be encouraged to resolve the argument by finding common ground	0.59	0.61	0.63	0.61
You can find commonalities with every person no matter what their background is	0.58	0.64	0.53	0.58
Everyone should be treated the same regardless of their race or ethnicity	0.56	0.64	0.54	0.58
In making decisions about hiring, qualifications should be what matters, not the applicant's racial, ethnic, or other background factors	0.62	0.64	0.46	0.57
In a group or organization, all people should be welcome regardless of background as long as they meet the necessary requirements	0.62	0.50	0.55	0.55
It's best to judge one another as individuals rather than as members of an ethnic group	0.52	0.51	0.60	0.55

(continued)

Table 4. (continued)

Item	Study 2	Study 3	Study 4	*Mean*[a]
Factor 2: Color evasion				
We must stop obsessing so much about race and ethnicity in order to have a cooperative society	0.78	0.77	0.93	0.83
Nothing good will come out of continuing to focus on race	0.81	0.76	0.88	0.82
I wish people in our society would stop obsessing so much about race	0.77	0.72	0.89	0.80
America would be better off if we stopped placing so much importance on race	0.78	0.74	0.84	0.79
Learning to ignore differences between ethnic groups will improve relations between groups in the United States	0.56	0.59	0.63	0.60
Talking about racial issues causes unnecessary tension	0.35	0.53	0.78	0.56
It is important that people begin to think of themselves as American and not African American, Mexican American, or Italian American	0.41	0.52	0.73	0.56
The topic of race is something that should generally be avoided	0.40	0.47	0.71	0.54
For the unity of the country, individuals should be considered Americans before any consideration is given to their race or religion	0.47	0.44	0.61	0.51
Factor 3: Rejection of racial categorization				
Seeing people in terms of race is an injustice	0.70	0.72	0.84	0.75
Seeing people in terms of race strips them of their individuality	0.73	0.70	0.81	0.74
Seeing people in terms of race or ethnicity creates inequality among groups	0.72	0.64	0.83	0.74
Putting racial labels on people hides the fact that everyone is a unique individual	0.69	0.66	0.81	0.73
Seeing people in terms of race or ethnicity leads to prejudice	0.69	0.65	0.82	0.72
Categorizing people by race is in and of itself racist	0.69	0.63	0.74	0.69
If we want to help create a harmonious society, we must recognize that race and ethnicity are artificial labels that keep people from thinking freely as individuals	0.61	0.63	0.70	0.65
Factor correlations				
Equality orientation with color evasion	0.62	0.32	0.43	0.45
Equality orientation with rejection of racial categorization	0.60	0.49	0.60	0.56
Color evasion with rejection of racial categorization	0.75	0.71	0.82	0.76

[a]Weighted by sample size; items are presented in descending order by weighted mean factor loadings within factors.

Table 5. Mean Correlations of MARC Subscale Scores With Scores on Validity Criterion Variables From Internal Meta-Analysis.

Validity criterion	Studies[a]	MARC Subscales: Equality orientation	MARC Subscales: Color evasion	MARC Subscales: Rejection of racial categorization	*Mean* scale score (pooled *SD*)
MARC equality orientation (0.90)	1–4				5.98 (0.80)
MARC color evasion (0.87)	1–4	0.40***			4.46 (1.35)
MARC rejection of racial categorization (0.87)	1–4	0.52***	0.65***		4.81 (1.31)
Preference for meritocracy (0.74)	1–4	0.48***	0.20***	0.21***	5.36 (0.66)
Denial of white privilege (0.93)	1, 2	−0.11*	0.35***	−0.08	3.56 (1.35)
Denial of discrimination (0.95)	1, 4	−0.09	0.50***	0.12*	2.69 (1.35)
Perceptions of discrimination (0.91)	2, 3	0.23***	−0.24***	0.06	5.10 (0.93)
Opposition to affirmative action (0.86)	1, 3	−0.17***	0.35***	0.00	3.39 (0.94)
Affirmative action negative meanings (0.45)	2	−0.22**	−0.17*	−0.12	2.89 (1.16)
Affirmative action neutral meanings (0.69)	2	−0.10	−0.14*	−0.18**	3.92 (1.24)
Affirmative action positive meanings (0.48)	2	0.09	−0.17*	−0.13	5.33 (1.26)
Social dominance orientation (0.85)	1–3	−0.46***	0.10*	−0.19***	2.21 (1.02)
Internal motivation to control prejudice (0.82)	1–3	0.53***	−0.05	0.22***	6.20 (0.95)
External motivation to control prejudice (0.74)	1–3	0.04	0.14***	0.10*	4.06 (1.29)
Multiculturalism (0.95)	1–4	0.50***	−0.18***	0.08*	6.16 (0.91)
Cultural assimilation (0.88)	1–4	−0.18***	0.41***	0.11***	2.77 (1.34)
Social desirability response bias (0.70)	1–4	0.09**	0.10**	0.08*	3.89 (0.98)
Modern-symbolic racism (0.91)	3	−0.34***	0.35***	0.00	2.43 (1.08)
Modern homonegativity (0.95)	3	−0.21**	0.38***	0.07	2.85 (1.41)
Feeling thermometer ethnic majority groups[b] (0.77)	1–4	0.15***	0.25***	0.21***	5.39 (1.40)
Feeling thermometer ethnic minority groups[b] (0.94)	1–4	0.25***	−0.11***	0.08*	5.50 (1.17)
Feeling thermometer lesbians and gay men[b] (0.92)	2–4	0.19***	−0.20***	0.02	5.47 (1.42)
Ethnic ingroup favoritism[c]	1–4	−0.06	0.33***	0.14***	–0.12 (1.43)

Note. Weighted mean coefficient alpha for each variable is shown in parentheses after the variable name. Mean scores are weighted by sample size.
[a]Studies in which the variable was assessed. [b] Higher scores are more positive. [c] Single item scored as majority groups feeling thermometer minus ethnic minority groups feeling thermometer. MARC = Multidimensional Assessment of Racial Colorblindness.
*$p \leq .05$. **$p \leq .01$. ***$p \leq .001$.

categorization. With respect to preferences for majority over minority groups, equality orientation was unrelated to ingroup favoritism, but color evasion and rejection of categorization had positive relationships, although the latter was small.

We used multiple regression analyses to examine the relationship of scores on the colorblindness factors to attitudes toward minority and majority groups. All standardized regression coefficients and their corresponding standard errors were submitted to mixed-effects meta-analyses using the *metafor* package for *R* (Viechtbauer, 2010). As shown in Table 6, equality orientation and color evasion were related to measures of prejudice with scores on the other subscales controlled, with equality orientation having negative relationships and color evasion having positive relationships. Rejection of categorization had small or statistically nonsignificant relationships with the prejudice measures.

The finding that although color evasion had larger regression coefficients than zero-order correlations with measures of prejudice represents a suppression effect, a situation in which the presence of one or more variables suppresses or conceals the relationship between two other variables; the relationship of the suppressed variable is revealed when the effects of the suppressing variable or variables is controlled (Cohen et al., 2003). In the present case, it appears that the presence of equality orientation suppresses color evasion's relationship to attitudes toward minority groups.

An unexpected finding of Study 2 was that racial colorblindness was related to attitudes toward lesbians and gay men. We had added this measure to the study as a discriminant validity criterion: Given that most items on the MARC explicitly refer to racial and ethnic groups, we expected to find no correlation between the MARC components and attitudes toward lesbians and gay men. This expectation was reinforced by the results of two studies conducted by Rosenthal et al. (2012) that found essentially no correlation between scores on a measure of racial colorblindness and attitudes toward lesbians and gay men. However, our Study 2 finding was replicated for feeling thermometer scores in Studies 3 and 4 and modern homonegativity scores in Study

Table 6. Mean Standardized Regression Coefficients for Simultaneous Regression Analysis Predicting Feeling Thermometer Scores for Minority and Majority Groups From MARC Subscales.

	Attitude target					
Predictor	Ethnic minority groups feeling thermometer[a] (Studies 1–4)	Ethnic majority groups feeling thermometer[a] (Studies 1–4)	Ethnic ingroup favoritism (Studies 1–4)	Modern-symbolic racism (Study 3)	Lesbians and gay men feeling thermometer[a] (Studies 2–4)	Modern homonegativity (Study 3)
Equality orientation	0.31***	0.03	−0.22***	−0.46***	0.28***	−0.33***
Color evasion	−0.30***	0.21***	0.44***	0.57***	−0.41***	0.54***
Rejection of racial categorization	0.11	0.05	−0.04	−0.14	0.16**	−0.10

Note. Coefficients in the same column are from the same regression model. MARC = Multidimensional Assessment of Racial Colorblindness.
[a]Higher scores indicate more positive attitudes.
**$p \leq .01$. ***$p \leq .001$.

Table 7. Correlations of MARC Subscale Scores and CoBRAS Scores With Scores on Validity Criterion Variables, Study 3.

Validity criterion	Equality orientation	Color evasion	Rejection of racial categorization	CoBRAS	*Mean* (*SD*)
MARC equality orientation (0.90)					6.05 (0.79)
MARC color evasion (0.84)	0.30***				4.27 (1.29)
MARC rejection of racial categorization (0.84)	0.46***	0.60***			4.97 (1.21)
CoBRAS (0.89)	−0.24***	0.41***	0.06		2.90 (0.96)
Preference for meritocracy (0.78)	0.59***	0.11	0.20**	−0.14*	5.42 (0.69)
Perceptions of discrimination (0.91)	0.24***	−0.27***	0.02	−0.74***	5.18 (0.93)
Opposition to affirmative action (0.87)	−0.17**	0.38***	0.10	0.75***	3.30 (0.95)
Social dominance orientation (0.85)	−0.54***	0.14*	−0.18**	0.61***	2.14 (0.98)
Internal motivation to control prejudice (0.83)	0.62***	−0.11	0.13*	−0.51***	6.26 (0.95)
External motivation to control prejudice (0.73)	−0.14*	0.11	−0.06	0.14*	3.93 (1.29)
Multiculturalism (0.95)	0.60***	−0.16*	0.11	−0.54***	6.33 (0.82)
Cultural assimilation (0.85)	−0.28***	0.34***	0.04	0.62***	2.37 (1.12)
Social desirability response bias (0.65)	0.05	0.02	0.03	0.06	3.84 (0.91)
Modern-symbolic racism (0.91)	−0.34***	0.35***	0.00	0.85***	2.43 (1.08)
Modern homonegativity (0.95)	−0.21**	0.38***	0.07	0.68***	2.85 (1.41)
Feeling thermometer ethnic majority groups[a] (0.80)	0.09	0.14*	0.16*	0.20**	5.60 (1.42)
Feeling thermometer ethnic minority groups[a] (0.94)	0.32***	−0.05	0.11	−0.24***	5.72 (1.17)
Feeling thermometer lesbians and gay men[a] (0.92)	0.26***	−0.12	0.10	−0.38***	5.69 (1.41)
Ethnic ingroup favoritism[b]	−0.18**	0.19**	0.07	0.41***	−0.13 (1.35)

Note. $N = 232$. Coefficient alpha for each variable is shown in parentheses after the variable. MARC = Multidimensional Assessment of Racial Colorblindness.
[a]Higher scores are more positive. [b] Single item scored as majority groups feeling thermometer minus ethnic minority groups feeling.
*$p < .05$. **$p < .01$. ***$p < .001$.

3, suggesting that the correlations between racial colorblindness and anti-gay prejudice are robust.

Finally, in Study 3, replicating the findings of previous researchers (Brandt & Reyna, 2014; Kanter et al., 2020), we found that scores on the modern-symbolic racism scale were only modestly correlated with feeling thermometer scores: negatively with favorable feelings toward minority groups ($r = -.29$), and positively with favorable feelings toward majority groups ($r = .18$) and ingroup favoritism ($r = .44$), $ps < .001$. Modern homonegativity scores were also moderately negatively correlated with favorable feelings toward lesbians and gay men, $r = -.56$, $p < .001$. In sum, feeling thermometers and validated scales assessing modern prejudice seem to be assessing different aspects of prejudice.

Comparison of the MARC With the CoBRAS

Comparing the MARC and the CoBRAS. As shown in Table 7, scores on the CoBRAS were positively correlated with MARC color evasion scores, negatively correlated with MARC equality orientation scores, and uncorrelated with

MARC rejection of racial categorization scores The pattern of correlations between the CoBRAS and other variables generally paralleled those for the MARC color evasion subscale and were generally opposite in sign from those for the MARC equality orientation and, to a lesser extent, rejection of racial categorization subscales. Thus, the CoBRAS appears to assess a construct that is similar to that assessed by the MARC color evasion subscale, but different from the constructs assessed by the other MARC subscales.

Especially striking was the correlation between CoBRAS and modern-symbolic racism scores, $r = .85$, indicating an especially close relationship between the constructs assessed by the two measures (see also Kanter et al., 2020). Thus, further examination of the differential validity between colorblindness as assessed by the CoBRAS and modern-symbolic racism appears to be warranted.

Effects of different measures of colorblindness and racial prejudice. To test whether colorblindness more strongly predicted ethnic minority attitudes that were assessed using feeling thermometers versus the MSRS, we examined the correlations between the CoBRAS and the MARC color evasion subscale and each of the two measures of prejudice. We compared the correlations using Williams' (1959) test for the difference in overlapping correlations from a single sample. For ease of presentation, we reverse scored the ethnic minorities feeling thermometer so that, as with the MSRS, higher values correspond with more negative attitudes. The CoBRAS was more strongly correlated with the modern-symbolic racism scale, $r = .85$, than with the feeling thermometers $r = .24$, $t(229) = 13.28$, $d = 1.75$, $p < .001$; similarly, the MARC color evasion subscale was correlated more strongly with the MSRS, $r = .35$, than with the feeling thermometers, $r = .05$, $t(229) = 4.09$, $d = 0.54$, $p < .001$. In addition, the CoBRAS produced a higher correlation than the MARC color evasion subscale for both modern-symbolic racism, $t(229) = 12.06$, $d = 1.59$, $p < .001$, and the feeling thermometer, $t(229) = 2.66$, $d = 0.35$, $p = .01$. It, therefore, appears that both the measure of prejudice and the measure of colorblindness used in a study can affect the size of the correlation found.

Discussion

Although there is consensus that the intergroup ideology of multiculturalism is negatively related to prejudice and that assimilation ideology is positively related to prejudice (e.g., Leslie et al., 2020; Plaut et al., 2015; Whitley & Webster, 2019), there is less agreement on the relationship of racial colorblindness to prejudice: Some scholars (e.g., Neville et al., 2013) view colorblindness itself as a form of prejudice whereas others (e.g., Guimond et al., 2014) view it as a potential counterweight to prejudice because of its focus on intergroup equality, nondiscrimination, and the individuation of outgroup members. Consistent with these opposing theoretical predictions, recent meta-analyses have found that correlations between colorblindness and prejudice are very heterogeneous, resulting in a mean correlation near zero (Leslie et al., 2020; Whitley & Webster, 2019). Because theoretical analyses of the construct of racial colorblindness have proposed that it is multifaceted (e.g., Plaut et al., 2015) and the facets of a multifaceted construct can have differing relationships with other variables (Carver, 1989), we investigated whether colorblindness is a multifaceted construct. Our principal findings, based initially on college student samples and replicated in an online sample, were:

- Racial colorblindness is composed of at least three reliable and valid facets: equality orientation, color evasion, and rejection of racial categorization.
- These facets are differentially related to other variables, sometimes in opposite directions.
- Equality orientation is negatively related to ethnic prejudice and color evasion is positively related to ethnic prejudice. However, rejection of racial categorization is not systematically related to ethnic prejudice.
- A similar pattern of relationships exists for anti-gay prejudice.
- Patterns of correlation between colorblindness and racial prejudice vary as a function of both the colorblindness measure used and the type of prejudice measure used.

The Construct of Racial Colorblindness

Factor structure. Exploratory factor analysis and CFA identified three correlated facets of racial colorblindness. The first, equality orientation, reflects the belief that one should view outgroup members as individuals and focus on intergroup similarities rather than differences. The second facet, color evasion, reflects a belief that one should avoid engaging with issues related to race or ethnicity. The third facet, rejection of racial categorization, reflects the belief that classifying people into racial or ethnic categories has harmful effects. These facets constitute subscales of a colorblindness measure we call the MARC.

However, not all the scales from which the items were drawn included items from each of the factors we identified: Only eight of the 13 scales included equality orientation items, six included color evasion items, and five included rejection of racial categorization items, with some being heavily weighted toward one factor. Thus, color evasion and rejection of racial categorization have been generally understudied as components of colorblind racial attitudes.

Although theoretical analyses have postulated five components of colorblindness, two pairs of those components each loaded on single factors in our analysis: commonalties among groups and individualization loaded on the equality

orientation factor and ignoring race and a common higher-order identity on the color evasion factor. These co-loading components may be what Lawson and Robins (2021) call sibling constructs. Such constructs are conceptually distinguishable but (among other characteristics) have measures that load on the same factor in factor analyses and have similar nomological networks. Thus, commonalties among groups and individualization are both empirically related to lower prejudice (Kite & Whitley, 2016), and belief in a common group identity can be used as a justification for avoiding issues or race and ethnicity (Dovidio et al., 2016). Further research is therefore needed to clarify the relations among the components of colorblindness.

Construct validity. Our findings provide evidence of the MARC's convergent and discriminant validity across a number of relevant constructs, including, in some cases, across more than one measure of the construct and in both college student and online samples. However, although rejection of categorization emerged as factor in our factor analyses, its relatively low correlations with the validity criterion variables and with measures of prejudice suggest that it might have limited usefulness in studies of colorblindness. More research is needed, therefore, to clearly elucidate its role. In addition, the constraints of survey research, such as the need to minimize respondent fatigue, required us to limit ourselves to a relatively small set of constructs and often only a single measure of those constructs. Future research should examine the validity of the MARC relative to additional potentially relevant variables such as perceived threat and obedience to authority (Brandt & Crawford, 2019).

Colorblindness and Prejudice

Ethnic prejudice. Equality orientation and color evasion were related to affective responses to ethnic minority groups, with equality orientation being related to positive affect and color evasion being related to negative affect toward those groups; we found similar results for modern-symbolic racism as the measure of prejudice. In addition, color evasion was a positive predictor of ingroup favoritism while equality orientation emerged as a statistically significant negative predictor in the regression analyses. Color evasion's relation to ingroup favoritism may be especially important, given that ingroup favoritism is a major enabler of intergroup discrimination (Brewer, 2017). Although the colorblindness effect sizes were sometimes small, these effects are still important, given that most behaviors and attitudes are the result of the cumulative small effects of many variables rather than a large effect of a single variable (Götz et al., 2022).

Generalizability to other targets of prejudice. Although we had included attitudes toward lesbians and gay men as a discriminant validity variable in Study 2, it turned out that the colorblindness facets were related to this form of prejudice as well as to ethnic prejudice; Studies 3 and 4 replicated this finding for the feeling thermometer measure and Study 3 extended it to modern homonegative attitudes. These results suggest that racially colorblind attitudes may be related to other forms of prejudice as well, perhaps because people who are prejudiced against one social group also tend to be prejudiced against others (Bergh & Akrami, 2017). This result is inconsistent with Rosenthal et al.'s (2012) finding, using a measure that did not differentiate among the colorblindness facets, of no relationship of racial colorblindness to anti-gay attitudes. However, given that our regression analyses found that color evasion had a negative relationship with attitudes toward lesbians and gay men while equality orientation had a positive relationship, combining these facets could result in a near-zero correlation (see the following discussion of multifaceted constructs). Future research should further examine the extent to which racial colorblindness is related to other forms of prejudice in addition to ethnic prejudice and whether domain-specific measures of "blindness" ideologies such as gender (e.g., Hahn et al., 2015) outperform a more domain-general measure.

The relationship of racial colorblindness to other targets of prejudice may be limited, however. Bergh and Brandt (2021) argued that targets of prejudice cluster into three categories: privileged groups, unconventional groups, and marginalized groups. Both the ethnic minority groups we included in our research and lesbians and gay men fell into the marginalized groups category, so colorblindness's generalizability may be limited to those targets of prejudice. Other groups in this category include hippies, poor people, and immigrants. Future research could examine the relationship of colorblindness to attitudes toward these additional groups and, for discriminant validity, atheists and liberals, who fell into the unconventional category.

Colorblindness as a Multifaceted Construct

Our results clearly show that colorblindness is a multifaceted construct (Carver, 1989). Although the colorblindness facets are positively correlated with one another, they frequently have different patterns of correlations with other variables. These differing patterns of correlations raise the question of the best way to score measures of multifaceted constructs such as the MARC (Chen et al., 2012). One approach is to combine the facet scores into a single scale score. This procedure is not appropriate in the case of the MARC because although the MARC facets have similar relationships to some variables, they have differing correlations with other variables. Differing facet correlations are problematic for a total score approach because the total score correlation can obscure the contributions of the individual facets (Carver, 1989; Chen et al., 2012). In some cases, facet correlations with opposite signs can result in a zero correlation for the combined score (see Kite & Whitley, 2018, pp. 442–443, for an example). Therefore, researchers using the MARC should

score each subscale separately and take a multivariate approach to examining the subscales' relationships to other variables.

Different Measures of the "Same" Constructs

Study 3 compared correlations between MARC subscales, the CoBRAS, and relevant criterion variables. In general, the CoBRAS correlations paralleled those for the MARC color evasion subscale, although the CoBRAS correlations were usually larger, and often differed from those of the other two MARC subscales. This pattern of results was expected, given that the CoBRAS was designed to assess color evasion (Neville et al., 2000).

Regarding ethnic prejudice, modern-symbolic racism had larger correlations with both the CoBRAS and MARC color evasion than the ethnic minority groups feeling thermometers did. This difference may be a result of the two measures' assessing different aspects of prejudice: affect in the case of the feeling thermometer and the activation of negative stereotypes in response to items on the modern-symbolic racism scale (Brandt & Reyna, 2014). In addition, compared with effects of the MARC color evasion subscale, the CoBRAS produced larger correlations with both the feeling thermometer and modern-symbolic racism. Because of these differences, the largest correlation we found was between the CoBRAS and modern-symbolic racism, $r = .84$, and the smallest between the MARC color evasion and the minority groups feeling thermometer (scored so that higher scores reflected higher levels of prejudice), $r = .04$. Such different correlations produced by different measures of colorblindness and prejudice indicate that researchers should use multiple measures of each to ensure complete assessment of both constructs.

Limitations of Our Research

Our research is somewhat limited in that that we used only U.S. participants. We chose to accept this limitation because we wanted to ensure comparability with previous research, most of which used this population (Whitley & Webster, 2019). In addition, the United States is a good venue for research on racial colorblindness because the concept is widely endorsed in American society (e.g., Hartmann et al., 2017). This does not mean, however, that the concept of racial colorblindness is irrelevant in other contexts. For example, Whitley and Webster (2019) found that research on the relationship between colorblindness and prejudice had been conducted in Australia, France, Mauritius, and New Zealand as well as the United States. It would, therefore, be fruitful for future research to explore the role of colorblindness in different national contexts and potentially with different measure of prejudice such as implicit bias.

Another limitation is our focus on White respondents. This was an important starting point for this research, given the prevalence of colorblind ideology endorsement by White Americans (Hartmann et al., 2017) and the critical implications of a majority group member's ideology for minority group experience (e.g., Plaut et al., 2009). Nevertheless, future work could consider how the dimensions of colorblindness operate among people from marginalized groups.

Because our findings were based on colorblindness items used in previous research, our analysis was constrained by the state of that literature. We do not mean to suggest that the conceptual construct of colorblindness is fully covered by the three facets we present here; there may be still other instantiations of colorblindness that researchers have yet to identify. As such innovations are made, the MARC may evolve along with them, and we invite further work in this area. Similarly, as we noted previously, we could not include all possible criterion variables of interest. Future work should continue to examine the shared and divergent effects of the colorblindness facets.

Finally, although we investigated the relationship of racial colorblindness to attitudes toward ethnic and sexual orientation groups, colorblind attitudes have been found to correlate with other indicators of the quality of intergroup relations such as stereotyping, discrimination, and attitudes toward diversity policies (Leslie et al., 2020). Future research should extend to those variables as well.

Conclusion

Our research shows that racial colorblindness is a valid and useful construct. However, it is also multifaceted, so it is important to include all three of its facets in research or to explicitly identify the facet of interest rather than treating it as a unitary construct. The multifaceted nature of colorblindness suggests that it might be useful to revisit the conclusions drawn from previous research on prejudice that treated colorblindness as a unitary construct to explore the extent to which the specific facets of colorblindness assessed by those measures may have influenced the results of the research.

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Supplemental Material

Supplemental material is available online with this article.

Notes

1. Throughout, we generally use "prejudice" to refer to negative attitudes toward nondominant social groups, especially relative to attitudes toward socially dominant groups.
2. In all of our surveys, we included items assessing both cultural and social assimilation, following from the results of our preliminary study (see Supplemental Material). However, we focus on analyses using cultural assimilation, given the conceptual focus of prior work in this area. See the Supplemental Materials for additional analyses using social assimilation.
3. We also conducted a preliminary study to determine the best items to use for convergent validity criteria for which we found more than one existing measure (see Supplemental Materials).
4. We also added Mormons, Republicans and Democrats; however, in the interest of focusing on more clearly defined categories of social groups and because principal components analyses including these items did not support a clear way of grouping them, we did not analyze these items, and we do not include them in the subsequent surveys.

References

Apfelbaum, E. P., Norton, M. I., & Sommers, S. R. (2012). Racial color blindness: Emergence, practice, and implications. *Current Directions in Psychological Science*, *21*(3), 205–209. https://doi.org/10.1177/0963721411434980

Apfelbaum, E. P., Pauker, K., Ambady, N., Sommers, S. R., & Norton, M. I. (2008). Learning (not) to talk about race: When older children underperform in social categorization. *Developmental Psychology*, *44*(5), 1513–1518. https://doi.org/10.1037/a0012835

Axt, J. R. (2018). The best way to measure explicit racial attitudes is to ask about them. *Social Psychological and Personality Science*, *9*(8), 896–906. https://doi.org/10.1177194855061772899 5

Bergh, R., & Akrami, N. (2017). Generalized prejudice: Old wisdom and new perspectives. In C. G. Sibley & F. K. Barlow (Eds.), *Cambridge handbook of the psychology of prejudice* (pp. 438–460). Cambridge University Press. https://doi.org/10.1017/9781316161579.019

Bergh, R., & Brandt, M. J. (2021). Mapping principal dimensions of prejudice in the United States. *Journal of Personality and Social Psychology*. Advance online publication. https://doi.org/10.1037/pspi0000360

Bonilla-Silva, E. (2017). *Racism without racists: Color-blind racism and the persistence of racial inequality in the United States* (5th ed.). Rowman & Littlefield.

Brandt, M. J., & Crawford, J. T. (2019). Studying a heterogeneous array of target groups can help us understand prejudice. *Current Directions in Psychological Science*, *28*(3), 292–298. https://doi.org/10.1177/09833721419830382

Brandt, M. J., & Reyna, C. (2014). To hate or love thy neighbor: The role of authoritarianism and traditionalism in explaining the link between fundamentalism and racial prejudice. *Political Psychology*, *35*(2), 207–223. https://doi.org/10.1111/pops.12077

Brewer, M. B. (2017). Intergroup discrimination: Ingroup love or outgroup hate? In C. G. Sibley & F. K. Barlow (Eds.), *The Cambridge handbook of the psychology of prejudice* (pp. 90–110). Cambridge University Press.

Carver, C. S. (1989). How should multifaceted personality constructs be tested? Issues illustrated by self-monitoring, attributional style, and hardiness. *Journal of Personality and Social Psychology*, *5*(4), 577–585. https://doi.org/10.1037/0022-3514.56.4.577

Chen, F. F., Hayes, A., Carver, C. S., Laurenceau, J.-P., & Zhang, Z. (2012). Modeling general and specific variance in multifaceted constructs: A comparison of the bifactor model to other approaches. *Journal of Personality*, *80*(1), 219–251. https://doi.org/10.1111/j.1467-6494.2011.00739.x

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed). Earlbaum.

Correll, J., Park, B., & Smith, J. A. (2008). Colorblind and multicultural prejudice reduction strategies in high-conflict situations. *Group Processes & Intergroup Relations*, *11*(4), 471–491. https://doi.org/10.1177/1368430208095401

Davey, L. M., Bobocel, D. R., Son Hing, L. S., & Zanna, M. P. (1999). Preference for the Merit Principle Scale: An individual difference measure of distributive justice preferences. *Social Justice Research*, *1*(3), 223–240. https://doi.org/10.1023/A:10222148418210

Dovidio, J. F., Gaertner, S. L., Ufkes, E. G., Saguy, T., & Pearson, A. R. (2016). Included but invisible? Subtle bias, common identity, and the darker side of "we." *Social Issues and Policy Review*, *10*(1), 6–46. https://doi.org/10.1111/sipr.12017

Fabrigar, L. R., & Wegener, D. T. (2012). *Exploratory factor analysis*. Oxford University Press.

Goff, P. A., Jackson, M. C., Nichols, A. H., & Di Leone, B. A. L. (2013). Anything but race: Avoiding racial discourse to avoid hurting you or me. *Psychology*, *4*(3A), 335–339. https://doi.org/10.4236/psych.2013.43A048

Goh, J. X., Hall, J. A., & Rosenthal, R. (2016). Mini meta-analysis of your own studies: Some arguments on why and a primer on how. *Social and Personality Psychology Compass*, *10*(1), 535–549. https://doi.org/10.1111/spc3.12267

Götz, F. M., Gosling, S. D., & Rentfrow, P. J. (2022). Small effects: The indispensable foundation for a cumulative psychological science. *Perspectives on Psychological Science*, *17*(1), 205–215. https://doi.org/10.1177/1745691620984483

Guimond, S., de la Sablonnière, R., & Nugier, A. (2014). Living in a multicultural world: Intergroup ideologies and the societal context of intergroup relations. *European Review of Social Psychology*, *25*(1), 142–188. https://doi.org/10.1080/10463283.2014.957578

Hachfeld, A., Hahn, A., Schroeder, S., Anders, Y., & Kunter, M. (2015). Should teachers be colorblind? How multicultural and egalitarian beliefs differentially relate to aspects of teachers' professional competence for teaching in diverse classrooms. *Teaching and Teacher Education*, *48*, 44–55. https://doi.org/10.1016/j.tate.2015.02.001

Hahn, A., Banchefsky, S., Park, B., & Judd, C. M. (2015). Measuring intergroup ideologies: Positive and negative aspects of emphasizing versus looking beyond group differences. *Personality and Social Psychology Bulletin*, *41*(12), 1646–1664. https://doi.org/10.1177/0146167215607351

Haley, H., & Sidanius, J. (2006). The positive and negative framing of affirmative action: A group dominance perspective. *Personality and Social Psychology Bulletin*, *3*(5), 656–668. https://doi.org/10.1177/0146167205283442

Hart, C. M., Ritchie, T. D., Hepper, E. G., & Gebauer, J. E. (2015). The balanced inventory of desirable responding short form (BIDR-16). *SAGE Open*, *5*(4), 1–9. https://journals.sagepub.com/doi/10.1177/2158244015621113

Hartmann, D., Croll, P. R., Larson, R., Gerteis, J., & Manning, A. (2017). Colorblindness as identity: Key determinants, relations to ideology, and implications for attitudes about race and policy. *Sociological Perspectives*, *60*(5), 866–888. https://doi.org/10.1177/0731121417719694

Henry, P. J., & Sears, D. O. (2002). The Symbolic Racism 2000 Scale. *Political Psychology*, *23*(2), 253–283. https://doi.org/10.1111/0162-895X.00281

Ho, A. K., Sidanius, J., Kteily, N., Sheehy-Skeffington, J., Pratto, F., Henkel, K. E., Foels, R., & Stewart, A. L. (2015). The nature of social dominance orientation: Theorizing and measuring preferences for intergroup inequality using the new SDO7 Scale. *Journal of Personality and Social Psychology*, *109*(6), 1003–1028. https://doi.org/10.1037/pspi0000033

John, O. P., & Soto, C. J. (2007). The importance of being valid: Reliability and the process of construct validation. In R. W. Robins, C. R. Farley, & R. F. Krueger (Eds.), *Handbook of research in personality psychology* (pp. 461–494). Guilford Press.

Kanter, J. W., Williams, M. T., Kuczynski, A. M., Corey, M. D., Parigoris, R. M., Carey, C. M., Manbeck, K. E., Wallace, E. C., & Rosen, D. C. (2020). The measurement and structure of microaggressive communications by White people against Black people. *Race and Social Problems*, *12*, 323–343. https://doi.org/10.1007/s12552-020-09298-w

Keum, B. T., Miller, M. J., Lee, M., & Chen, G. A. (2018). Color-Blind Racial Attitudes Scale for Asian Americans: Testing the factor structure and measurement invariance across generational status. *Asian American Journal of Psychology*, *9*(2), 149–157. https://doi.org/10.1037/aap0000100

Kite, M. E., & Whitley, B. E., Jr. (2016). *Psychology of prejudice and discrimination* (3rd ed.). Routledge.

Kite, M. E., & Whitley, B. E., Jr. (2018). *Principles of research in behavioral science* (4th ed.). Routledge.

Knowles, E. D., Lowery, B. S., Hogan, C. M., & Chow, R. M. (2009). On the malleability of ideology: Motivated construals of color blindness. *Journal of Personality and Social Psychology*, *96*(4), 857–869. https://doi.org/10.1037.a0013595

Lai, K., & Green, S. B. (2016). The problem with having two watches: Assessment of fit when RMSEA and CFI disagree. *Multivariate Behavioral Research*, *51*(2–3), 220–239. https://doi.org/10.1080/00273171.2015.1134306

Lawson, K. M., & Robins, R. W. (2021). Sibling constructs: What are they, why do they matter, and how should you handle them? *Personality and Social Psychology Review*, *25*(4), 344–366. https://doi.org/10.1117/108886321104101

Leslie, L. M., Bono, J. E., Kim, Y. (S.), & Beaver, G. R. (2020). On melting pots and salad bowls: A meta-analysis of the effects of identity-blind and identity-conscious diversity ideologies. *Journal of Applied Psychology*, *105*(5), 453–471. https://doi.org/10.1037/apl0000446

Levin, S., Matthews, M., Guimond, S., Sidanius, J., Pratto, F., Kteily, N., Pitpitan, E. V., & Dover, T. (2012). Assimilation, multiculturalism, and colorblindness: Mediated and moderated relationships between social dominance orientation and prejudice. *Journal of Experimental Social Psychology*, *48*(1), 207–212. https://doi.org/10.1016/j.jesp.2011.06.019

Mazzocco, P. J., Cooper, L. W., & Flint, M. (2011). Different shades of racial colorblindness: The role of prejudice. *Group Processes & Intergroup Relations*, *15*(2), 167–178. https://doi.org/10.1177/1368430211424763

McConahay, J. B., Hardee, B. B., & Batts, V. (1981). Has racism declined in America? It depends on who is asking and what is asked. *Journal of Conflict Resolution*, *25*(4), 563–579. https://doi.org/10.1177/002200278102500401

Meeussen, L., Otten, S., & Phalet, K. (2014). Managing diversity: How leaders' multiculturalism and colorblindness affect work group functioning. *Group Processes & Intergroup Relations*, *17*(5), 629–644. https://doi.org/10.1177/1368430214525809

Miller, N. (2002). Personalization and the promise of contact theory. *Journal of Social Issues*, *58*(2), 387–410. https://doi.org/10.1111/1540-4560.00267

Monin, B., & Miller, D. T. (2001). Moral credentials and the expression of prejudice. *Journal of Personality and Social Psychology*, *81*(1), 33–43. https://doi.org/10.1037/0022-3514.81.1.33

Monteith, M. J., Parker, L. R., & Burns, M. D. (2016). The self-regulation of prejudice. In T. D. Nelson (Ed.), *Handbook of prejudice, stereotyping, and discrimination* (2nd ed., pp. 409–432). Psychology Press.

Morrison, K. R., Plaut, V. C., & Ybarra, O. (2010). Predicting whether multiculturalism positively or negatively influences White Americans' intergroup attitudes: The role of ethnic identification. *Personality and Social Psychology Bulletin*, *36*(12), 1648–1661. https://doi.org/10.1177/0146167210386118

Morrison, M. A., & Morrison, T. G. (2020). Modern Homonegativity Scale. In R. R. Milhausen, J. K. Sakaluk, T. D. Fisher, C. M. Davis, & W. L. Yarber (Eds.), *Handbook of sexuality-related measures* (4th ed., pp. 639–641). Routledge.

Nelson, J. C., Adams, G., & Salter, P. S. (2012). The Marley hypothesis: Denial of racism reflects ignorance of history. *Psychological Science*, *24*(2), 213–218. http://doi.org/10.1177/0956797612451466

Neville, H. A., Awad, G. H., Brooks, J. E., Flores, M. P., & Bluemel, J. (2013). Color-blind racial ideology: Theory, training, and measurement implications in psychology. *American Psychologist*, *68*(6), 455–466. https://doi.org/10.1037/a0033282

Neville, H. A., Lilly, R. L., Duran, G., Lee, R. M., & Browne, L. (2000). Construction and initial validation of the Color-Blind Racial Attitudes Scale (CoBRAS). *Journal of Counseling Psychology*, *47*(1), 59–70. https://doi.org/10.1037//0022-1647.47.1.59

Nicholls, J. G., Licht, B. G., & Pearl, R. A. (1982). Some dangers of using personality questionnaires to study personality. *Psychological Bulletin*, *9*(3), 572–580. https://doi.org/10.1037/0033-2909.92.3.572

Paulhus, D. L. (1991). Measurement and control of response bias. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes* (pp. 17–59). Academic Press.

Perry, R., Paradies, Y., & Pedersen, A. (2015). Religious ambivalence: Suppression of pro-social attitudes toward asylum seekers by right-wing authoritarianism. *International Journal for the Psychology of Religion*, *25*(3), 230–246. https://doi.org/10.1080/10508619.2014.921473

Plant, E. A., & Devine, P. G. (1998). Internal and external motivation to respond without prejudice. *Journal of Personality and Social Psychology*, *75*(3), 811–832. https://doi.org/10.1037/0022-3514.67.4.741

Plaut, V. C., Cheryan, S., & Stevens, F. G. (2015). New frontiers in diversity research: Conceptions of diversity and their theoretical and practical implications. In M. Mikulincer & P. R. Shaver (Eds.), *APA handbook of personality and social psychology: Attitudes and social cognition* (*Vol. 1*., pp. 593–619). American Psychological Association. https://doi.org/10.1037/14341-019

Plaut, V. C., Thomas, K. M., & Goren, M. J. (2009). Is multiculturalism or color blindness better for minorities? *Psychological Science*, *20*(4), 444–446. https://doi.org/10.111/j.1467-9280.2009.02318.x

Podsiadlowski, A., Gröschke, D., Kogler, M., Springer, C., & van der Zee, K. (2013). Managing a culturally diverse workforce: Diversity perspectives in organizations. *International Journal of Intercultural Relations*, *37*(2), 159–175. https://doi.org/10.1016/j.ijintrel.2012.09.001

Reyna, C. (2018). Scale creation, use, and misuse: How politics undermines measurement. In J. T. Crawford & L. Jussim (Eds.), *The politics of social psychology* (pp. 81–98). Routledge.

Richard, F. D., Bond, C. F., Jr., & Stokes-Zoota, J. J. (2003). One hundred years of social psychology quantitatively described. *Review of General Psychology*, *7*(4), 331–363. https://doi.org/10.1037/1089-2680.7.4.331

Rigdon, E. E. (1996). CFI versus RMSEA: A comparison of two fit indexes for structural equation modeling. *Structural Equation Modeling*, *3*(4), 369–379. https://doi.org/10.1080/10705519609540052

Rosenthal, L., & Levy, S. R. (2010). The colorblind, multicultural, and polycultural ideological approaches to improving intergroup attitudes and relations. *Social Issues and Policy Review*, *4*(1), 215–246. https://doi.org/10.1111/j.1715-2409.2010.01022.x

Rosenthal, L., & Levy, S. R. (2012). The relation between polyculturalism and intergroup attitudes among racially and ethnically diverse adults. *Cultural Diversity and Ethnic Minority Psychology*, *18*(1), 1–16. https://doi.org/10.1037/a0026490

Rosenthal, L., Levy, S. R., & Moss, I. (2012). Polyculturalism and openness about criticizing one's culture: Implications for sexual prejudice. *Group Processes and Intergroup Relations*, *15*(2), 149–165. https://doi.org/10.1177/1368430211412801

Ryan, C. S., Hunt, J. S., Weible, J. A., Peterson, C. R., & Casas, J. F. (2007). Multicultural and colorblind ideology, stereotypes, and ethnocentrism among Black and White Americans. *Group Processes & Intergroup Relations*, *10*(4), 617–637. https://doi.org/10.1177/1368430207084105

Sears, D. O., & Henry, P. J. (2005). Over thirty years late: A contemporary look at symbolic racism. *Advances in Experimental Social Psychology*, *37*, 95–150. https://doi.org/10.1016/S0065-2901(05)37002-X

Viechtbauer, W. (2010). Conducting meta-analyses in R with the metafor package. *Journal of Statistical Software*, *36*(3), 1–48. https://doi.org/10.18637/jss.v036.i03

Vittrup, B. (2018). Color blind or color conscious? White American mothers' approaches to racial socialization. *Journal of Family Issues*, *39*(3), 668–692. https://doi.org/10.1177/0192513X16676858

Whitley, B. E., Jr., & Webster, G. D. (2019). The relationships of intergroup ideologies to ethnic prejudice: A meta-analysis. *Personality and Social Psychology Review*, *23*(3), 207–237. https://doi.org/10.1177/1088868318761423

Williams, E. J. (1959). The comparison of regression variables. *Journal of the Royal Statistical Society, Series B*, *21*, 396–399. http://www.jstor.org/stable/2983809

Wolf, E. J., Harrington, K. M., Clark, S. L., & Miller, M. W. (2013). Sample size requirements for structural equation models: An evaluation of power, bias, and solution propriety. *Educational and Psychological Measurement*, *73*(6), 913–934. https://doi.org/10.1177/0013164413495237

Yogeeswaran, K., Verkuyten, M., Osborne, D., & Sibley, C. G. (2018). "I have a dream" of a colorblind nation? Examining the relationship between racial colorblindness, system justification, and support for policies that redress inequalities. *Journal of Social Issues*, *74*(2), 282–298. https://doi.org/10.1111/josi.12269